

Alabama Broadband Accessibility Fund 2018 Grant Application and Guide



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Alabama Broadband Accessibility Fund 2018 Grant Application and Guide

2018 Grant Application Guidelines

An application workshop will be held at 9:00 a.m. on Thursday, May 24, 2018, in the Alabama Center for Commerce 7th floor Auditorium. The code for the Decatur Street entrance to the parking deck is 7013#. Seating is limited; therefore, all attendees must register by calling or emailing Ms. Susan Fleeman at (334) 242-5292 or susan.fleeman@adeca.alabama.gov. An online version of the workshop and questions and answers from the workshop will be posted on the Alabama Department of Economic and Community Affairs (ADECA) website prior to May 28, 2018, at <http://adeca.alabama.gov/broadband>.

Applications shall be submitted in .pdf format by email to broadband.fund@adeca.alabama.gov

Applications will be accepted starting on May 28, 2018. Completed applications must be submitted by 11:59 PM, CST, on October 24, 2018. Any applications received after the deadline will not be considered. All applications must be complete; however, ADECA reserves the right to contact applicants for additional information and/or clarifications. All applications received will be posted on ADECA's website at <http://adeca.alabama.gov/broadband>.

Existing service providers shall have from October 25, 2018 through November 26, 2018 to file objections to the eligibility of the proposed projects. All objections must be filed by email to broadband.fund@adeca.alabama.gov and must include verifiable documentation to support the challenge.

An applicant may submit more than one application. However, each project must have a separate application and budget. Each project must stand alone in meeting the Alabama Broadband Accessibility Fund program requirements.

Eligibility

An eligible applicant is a non-government entity that is a cooperative, corporation, limited liability company, partnership, or other private business entity that provides broadband service.

Funding

Projects must be completed within two years of the effective date of the grant agreement. The grant will be in the form of a reimbursement of eligible costs up to the award amount in the grant agreement. Reimbursement will be made within 30 days of project completion and final inspection by ADECA.

All projects will be scored based on the established rating criteria. The criteria can be found at <http://adeca.alabama.gov/broadband>. Those eligible projects receiving the highest scores will be selected for funding. The number of projects funded will be determined by the funds available and the total amount of requests made. ADECA may request amended projects and/or offer reduced grant participation.

ADECA shall ensure that not less than 40% of the funds awarded will be awarded to projects serving unincorporated areas.

2018 Grant Application

Applicant Information

Project Name: Five Points Community Broadband Project

Legal Name of Entity: Roanoke Telephone Company, Inc.

Mailing Address: 236 East Capitol St, Jackson, MS 39201

Name and Title of CEO: James Garner, Vice President of Operations

Name and Title of Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone Number and Email of Contact: (601) 354-9070; LisaW@TEC.com

Project Description

This section is worth up to 15 points. Points will be awarded based on verifiable information only.

Please attach a project description in a file titled Attachment A, Project Description. The description shall include:

1. A discussion of the area served including boundaries, number of households, businesses, and any community anchors (libraries, schools, police and fire stations, hospitals, etc.). This response shall also identify if the project area is located within an unincorporated area and provide information regarding how the area meets the definition of rural (US Census data).
2. A discussion of the technology to be deployed (fiber, cable, DSL, etc.). Additionally, include a discussion of future usage projections and the ability to upgrade.
3. A discussion of internet speeds, service tier and pricing levels, data caps, etc.

4. A preliminary technical evaluation of the project certified by an engineer. The evaluation shall include a project cost estimate, project schedule and timeline to include a completion date of no more than two years, and maps showing the proposed project area. Maps should be in .shp, .kml, or .kmz formats.

Additionally, maps shall clearly show area eligibility (unserved areas). Generally, applicants may establish that an area is eligible by using the ADECA Broadband map showing unserved areas (<http://adeca.alabama.gov/broadband>). Other methodology, such as household surveys, may be acceptable, but shall be pre-approved by ADECA.

5. A discussion of the operator’s technical and managerial capabilities to complete the project within two years of the effective date of the grant award.

Application Budget

This section is worth up to 15 points. Points will be awarded based on verifiable information only.

For the table, please complete the shaded boxes only. The total grant amount cannot exceed the lesser of 20% of total project costs, or \$750,000/\$1,400,000 (\$750,000 for project type A, or \$1,400,000 for project type B). If federal funds are involved in the project, please see number 4 below.

The proposed project will provide internet speeds of at least (check one):

Project Type A: 10 Mbps download and 1 Mbps upload

Project Type B: 25 Mbps download and 3 Mbps upload

Total Project Cost	\$396,198.00
20% of Total Project Cost	\$79,239.60
Total Grant Amount Requested	\$79,239.00

Please provide a detailed project budget narrative in a file titled Attachment B, Project Budget. The budget narrative shall include:

1. Itemize eligible project expenses. Generally, eligible expenses will be limited to construction and construction related costs of broadband infrastructure. Operating expenses will not be eligible expenses. Any additional expenses associated with the project, but not part of the grant budget, should be included.
2. A discussion of the applicant’s necessary financial resources to:
 - a. sustain service to the project area (business model);

- b. provide adequate project financing (additional documentation may be requested by ADECA).
3. A discussion of any partners or subcontractors associated with the project’s deliverables including but not limited to adoption, deployment, and service delivery. Please describe each party’s role in the project.
 4. A discussion of any federal funds associated with the project.
 - a. Eligible projects may include projects that have received funds through other federal universal service funding programs designed specifically to encourage broadband deployment in an area without broadband access in an amount not exceeding 50% of the total project cost, provided, however, that any award of state funds may only be utilized to either:
 - i. fund project components that extend beyond the specifications supported by the federal funding, said eligible components being extension of service to unserved rural areas not otherwise served by the federally supported project; or
 - ii. ensure that areas being served by the federal funding at speeds less than 25 Mbps of download speed and 3 Mbps of upload speed will, in fact, receive faster speeds of not less than 25 Mbps of download speed and 3 Mbps of upload speed.
 - b. Grants issued to projects receiving federal funds shall not exceed 40% of total grant funding, with such grants not exceeding 20% of total project costs.

Other Program Priorities

Please answer each of the following questions either “yes” or “no.” For each “yes” answer, please provide a brief narrative and any supporting documentation. Any claims that cannot be verified will receive zero points in our scoring system. “No” answers will receive zero points in our rating system. **“Yes” answers (that can be verified) will receive up to 10 points.**

Does this project seek to leverage grant funds through private investment?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	If yes, include an explanation and documentation in a file titled Attachment C
Will this project be an extension of existing infrastructure?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	If yes, include an explanation and documentation in a file titled Attachment C

Does this project serve locations with demonstrated community support?

YES NO

If yes, include an explanation and documentation in a file titled Attachment C

Will this project serve the highest number of unserved homes, businesses, and community anchor points for the least cost?

YES NO

If yes, include an explanation and documentation in a file titled Attachment C

Does this project emphasize the highest broadband speeds?

YES NO

If yes, include an explanation and documentation in a file titled Attachment C

Will this project provide material broadband enhancements to hospitals located in rural areas as defined in Section 22-21-20, Code of Alabama 1975?

YES NO

If yes, include an explanation and documentation in a file titled Attachment C

Will this project support local libraries in this state for the purpose of assisting the libraries in offering digital literacy training pursuant to state library and archive guidelines?

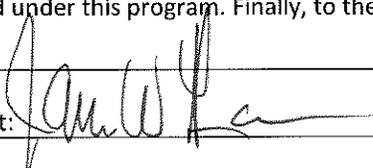
YES NO

If yes, include an explanation and documentation in a file titled Attachment C

Certifications

1. The applicant certifies that it is a non-governmental entity.
2. The applicant certifies all new customers served as a result of this project will have access to an internet connection that provides a capacity for transmission at an average speed per customer of at least 10 Mbps download and at least 1 Mbps upload.
3. The applicant certifies that all new customers served as a result of this project are not located within the boundaries of any incorporated city or town having a population in excess of 25,000 inhabitants, according to the last federal census.
4. The applicant certifies that it has the technical and managerial capabilities to complete the project within two years of the effective date of the grant agreement.

5. The applicant certifies that for any area served as a result of this project there is not at least one provider of terrestrial broadband service that is either:
 - a. offering a connection to the internet meeting the minimum service threshold; or
 - b. required, under the terms of the Federal Universal Service Fund or other federal or state grant, to provide a connection to the internet at speeds meeting the minimum service threshold within five years of the effective date of the Broadband Accessibility Act.

Certification	
<p>I the undersigned am authorized to obligate my entity and enter into agreements for my organization. I understand that the above certifications do not guarantee funding and a grant agreement will be executed prior to project funds being expended. I further understand that if the above statements cannot be verified, no grant funds will be awarded under this program. Finally, to the best of my knowledge the above certifications are true and correct.</p>	
Signature of Applicant: 	Date: 9/10/18
Title of Applicant: Vice President of Operations	

For more information regarding the Alabama Broadband Accessibility Fund, please send questions to Maureen Neighbors at broadband.fund@adeca.alabama.gov, or call (334) 242-5292 between the hours of 8:00 a.m. to 4:00 p.m., Monday through Friday.

Attachment A

Project name: Five Points Community Broadband Project

Legal name of entity: Roanoke Telephone Company, Inc.

Mailing address: 236 East Capitol St, Jackson, MS 39201

Name and title of CEO: James Garner, Vice President of Operations

Grant Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone: 601-354-9070 Email: LisaW@TEC.com

Project Description

1. Description of the Proposed Funded Service Area (PFSA) and why the project is needed:

The PFSA is a geographically contiguous area called the Five Points Community in Chambers county, AL. While this area is not inside the Five Points city limits, it is inside the Five Points Division (a County Subdivision of Chambers County). The county of Chambers, AL has a population of 26,711 inhabitants per the census bureau projection using 2010 census data and projecting thru 2016. The town of Five Points has a population of 180 and is incorporated for approximately one square mile. The Five Points Subdivision has a Z5 Census Class Code which indicates that the Five Points Division is a statistical county subdivision. The Five Points Subdivision has a total population of 2,310 per factfinder.census.gov 2016 ACS 5-year estimate data. The PFSA is located outside the city limits, but inside the Five Points Division and is in an unincorporated area of east Chambers county which is considered rural under any definition. The purpose of the Five Points Community Broadband Project is to utilize state grant funding along with our cash match of 80% to leverage Roanoke Telephone Company, Inc.'s ("RTC's") existing network infrastructure, thus, rapidly expanding broadband services into the underserved areas in the Five Points community in Chambers county, Alabama. As reflected from the ADECA broadband map, this area does not have a provider serving 10.0/1.0 service. RTC has already invested in and deployed the majority of the technology and infrastructure required to provide a full range of broadband services in the City of Roanoke in neighboring Randolph county and would like to continue that infrastructure with the Five Points Community Broadband Project in Chambers county. RTC is proposing to build approximately 16.3 miles of fiber to reach remote locations in the more rural area of the county that would be too costly to serve without the assistance of this grant funding, thus providing quality high speed internet services to approximately 389 customers, within 153 locations in approximately 3 square miles of rural Alabama who currently do not have access to broadband service as defined by the ADECA grant guidelines and map. RTC plans to build approximately 6.1 miles of distribution fiber to Five Points Community area and make Fiber to the Home (FTTH) service available to all locations within the proposed funded service area with an additional 10.2 miles of drop fiber to provide up to Gigabit speeds. Additionally, these services will be offered with the commitment of RTC to insure excellent local customer care and competitive pricing. Our focus is directed to the drop

fiber applications that literally connect the less-seen, rural areas of Alabama with the main broadband centers in the state. A detailed description of the boundaries and project design are in part 2 of this attachment.

Number of Households and Businesses Passed: The Five Points Community Broadband Project service area includes a total population of approximately 389. This area represents an estimated 153 households per the RUS mapping tool. Per RTC research all of these locations appear to be residential.

Number of Critical Community Facilities, Public Safety Entities, etc.: Per a review of the maps and a physical inspection, there do not appear to be any critical community facilities in this area, however as discussed below in the section titled Health Care Needs, it is vital for rural Americans to have access to telemedicine and online health portals.

Proposed Funded Service Area (PFSA) Needs: The inhabitants of Five Points Community located in the eastern portion of Chambers county need access to health care, government services, and educational and business opportunities, just like every person living in urban areas. Access can only be gained by using broadband services and sophisticated technologies that require high-speed connections. According to the Federal Communications Commission, 39 percent of rural Americans lack access to 25.0 Mbps/3.0 Mbps service, compared to only 4 percent of urban Americans. Specifically, in the Five Points Community, current and future generations will be left behind if they are without affordable high-speed broadband service that enables them to tap into health care and educational services, government agencies, and new business opportunities.

Economic characteristics: The Five Points Community Broadband Project is proposed for rural Chambers county, AL specifically the Five Points Division which, according to census data, has 33.9% of the population under the poverty level, significantly higher than the national average of 14.7% and the average in the state of Alabama at 18.4%. The population in Chambers county reflects an out migration of 1.1% according to census data on county to county migration, which is a five-year study (2011-2016) meaning the population is decreasing because people are leaving the area. The unemployment rate in the Five Points Division is 9.4%, with a median income of \$39,423 per household, significantly lower than the average \$44,758 in the state of Alabama. In addition, the population of disabled is 20%.

Per the 2016 census data projection, 19.8% of the population in Chambers county did not finish high school when polled about educational attainment.

Demographic Information by Division, County and State

(sourced from www.factfinder.census.gov 2016 ACS 5-year estimate data)

Demographic Statistics based on 2016 Census Data	Five Points Division in which PFSA is located	Chambers County	Alabama
Average Household Income	\$39,423	\$36,027	\$44,758
% Population under the Poverty Level	33.9%	20.3%	18.4%
Population of Disabled	20%	17.7%	16.3%
Out Migration Trend	Not available	-1.1%	-0.1%
Unemployment Data of Age 20 and Older	9.4%	7.3%	7.8%
Educational Attainment – does not complete high school	Not available	19.8%	15.2%

The PFSA desperately needs the availability of the broadband service. Access to government services and health care through telemedicine for the disabled, educational and business opportunities for the unemployed. According to the Chambers County Economic Development Authority, an educated and trained workforce is the number one key driver for companies looking to locate or expand their businesses. Internet access has become a vital component of both education and workforce readiness. Children are the workforce of tomorrow and education and technical skills are mandatory for preparing them for the job opportunities that will be available when they enter the workforce.

Internet access would provide opportunities for job hunting and for students who need internet access for homework and school projects. According to the Pew Research Center analysis from

April 20, 2015, of the Census data, the lowest-income households have the lowest home broadband subscription rates. Roughly one-third (31.4%) of households whose incomes fall below \$50,000 and with children ages 6 to 17 do not have a high-speed internet connection at home. This low-income group makes up about 40% of all families with school-age children in the United States, according to the bureau's American Community Survey. Providing opportunity and encouragement to be able to keep up with their classmates and assignments could curb the drop out statistic in Chambers county.

In addition, building broadband to the PFSA would make it more attractive to businesses to locate in the area, providing more job opportunities and providing broadband access to local farmers. Access to broadband would allow their farming businesses to be more efficient, economical and environmentally friendly. Today's farmers and ranchers are using precision agricultural techniques to make decisions that impact the amount of fertilizer a farmer needs to purchase and apply to the field, the amount of water needed to sustain the crop, and the amount and type of herbicides or pesticides the farmer may need to apply. These are only a few examples of the ways farmers use broadband connectivity to achieve optimal yield, lower environmental impact and maximize profits. Farmers rely on broadband access to manage and operate their businesses, the same as small businesses do in urban and suburban America.

Working from home would become an option and would also expand the job opportunities in this area.

Educational challenges: When used as part of a comprehensive educational strategy, technology provides access to tools, resources, data, and support systems that all increase teaching and learning opportunities. Such environments enable individualized, competency-based learning that can take place anywhere and anytime. While there is not a school located inside the PFSA, there are students living in this area. Both inadequate access to the internet and slow internet speeds inhibit schools in rural communities from taking advantage of the online components of personalized learning, as online platforms and materials are not accessible from student homes. This digital divide is known as the 'homework gap' and is defined as the gap between those with access to the internet and those without. Providing the community with broadband access to their homes is necessary for these students to not be left behind.

Health care needs: There are no public medical clinics or hospitals in the PFSA however, as documented in the letter from the Randolph County Healthcare Authority, it is vital for rural areas like the Five Points community for residents to have access to patient care through telemedicine and online portals. Hospital-based telemedicine and remote monitoring capabilities that extend access to specialty care and other services are becoming an increasingly popular option for patients and providers. The use of telemedicine and remote monitoring tools that

extend care into the home are applicable to many healthcare situations ranging from primary care to emergency care.

As more healthcare consumers cite the benefits of telemedicine, such as convenience and lower travel costs, hospitals are beginning to meet consumer demands while capitalizing on the improvements telemedicine brings to their healthcare services.

Patients can monitor their vital signs and answer symptom questions daily through a single user portal. Portals can be customized to a patient's specific disease condition and experience, and can be used by patients to alert providers about health conditions in real time.

The aim of telemedicine and patient monitoring is to improve health outcomes for chronic conditions involving cardiac disease, respiratory issues, and diabetes. These new digital healthcare initiatives also help with organizational goals such as reducing hospital admissions and keeping patients comfortable in their homes. With the high population of disabled in this community the need for online patient care can be remedied by the availability of broadband service.

2. System Design

A detailed description of the existing network: TEC has been meeting the communication needs of the rural south since 1923. Roanoke Telephone Company, Inc. (RTC) is a wholly-owned subsidiary of TEC and has provided voice service since 1951 and internet service since 1995. Currently, RTC serves voice to 2,748 customers in its certificated area and internet service to 1,313 customers in Randolph county, AL and has made broadband available to over 90% of the 160 square miles of the incumbent ILEC service area. Currently, RTC passes approximately 10,675 locations with broadband service in Randolph county in Alabama. With RTC's highly skilled and experienced customer care and technical staff of 11 employees locally located in Roanoke, AL, the company is positioned to give superior service to customers, and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network.

Standards based, RUS approved, technology is used, and the network has been constructed using RUS standard construction practices. RTC currently has 31 remote concentrators (Adtran TA5000) positioned throughout its network, which are served as fiber to the node (FTTN). Approximately 93% of the census blocks included in the serving area are utilizing the existing copper plant. Utilizing ADSL2+ and VDSL technology in the remotes, this copper plant is being bonded to provide 25.0/3.0 broadband service up to 8,000 feet of the remote concentrators. Each serving remote has been constructed with carrier grade DC power plants and batteries with at least 8 hours of backup in the event of a long-term power outage. All sites are monitored by

remote alarm systems and alarms are responded to 24X7 by on-call and network operations center (NOC) personnel. If the commercial power were to be affected for an even longer period, TEC can provide longer-term temporary power via fixed or portable generators as necessary. A detailed disaster recovery plan is on file and updated annually.

Approximately 7% of the census blocks included inside the service area are being served by a fiber to the home network design. The equipment strategy for any expansion project is to leverage existing fiber as much as possible to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through a designated LCP cabinet and distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Five Points Community Broadband Project will not require upgrades to the existing RTC network, but will be an extension of that network utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10Gbps or Point to Point 10Gb/s connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location.

A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10 Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30Gbps of peering bandwidth, with the ability to scale it higher as bandwidth usage grows. This network facilitates excellent response times across the network with minimal latency. Latency from TEC's network's edge to our Internet peering locations is typically well below 20ms.

A detailed description of the proposed network: The proposed plan is to connect to the fiber at RTC's existing Brandon Cove remote located on Chambers county road (CR) 266 with fiber. An Optical Line Terminal (OLT) will be installed in this existing Adtran TA5000 remote. From this location to the intersection of CR 266 and CR 268 is approximately .3 miles and this is the site planned for the pad mounted Local Convergence Point (LCP) cabinet. From this intersection, fiber would be constructed approximately .3 miles east on CR268 and 1.3 miles south on CR 285, then east on CR 286 for 1.1 miles and north on CR 288 for 1.1 miles and south on CR 288 for 1.1 miles. On the route down CR 288, there are additional routes east that will be built (CR 442 - .2 miles and CR 287 - .30) and an additional extension off CR 287 north on CR

443 for .4 miles. Two distributed 1:32 pole mounted splitters have been planned at the intersection of CR 285 and CR 286 and the intersection of CR 287 and CR 288. This proposed design will deploy single mode fiber optic cables constructed utilizing RUS approved construction techniques. All of the fiber will be buried and placed in existing previously disturbed public right-of-ways. To provide a more secure reliable fiber footprint, all of the buried fiber will be placed at a minimum depth of 36 inches unless other depths are required by the affected highway, railroad, municipalities or other authorities. The two methods of buried construction that will be utilized are predominately plowing with directional boring utilized when road or stream or other types of crossings are required. Directional boring will also be utilized when it is not possible to plow or boring is more feasible construction. Along the buried fiber route, flush-mounted handholes will be deployed with the proposed fiber being accessible at each location. This will allow for easy access to the network and also makes future expansions more economical and feasible.

All activity will be supervised by resident engineers and inspectors from Joseph D. Fail Engineering Company (JDFEC), a licensed engineer, a member of ACE, with over 50 years of experience with RUS projects. JDFEC has also reviewed the network diagram and system plan and approved the project.

At the completion of mainline or distribution construction, the contractor will set the LCP cabinet (pad mounted) and RTC technicians will install the OLT in the existing Brandon Cove remote. The mainline or distribution fiber build has been carefully planned to follow the county roads to cover all existing locations and two handholes have been planned every mile with slack fiber to allow for future growth. The LCP cabinet has been sized to cover the estimated two-year take rate of 97, and the cabinet is large enough to add splitter cards for future expansion.

The PFSA will be built for up to a Gigabit offering and will not be oversubscribed at all based on the minimum required offering of 25.0/3.0 per user. Standard GPON technology will have virtually no link loss. All systems will maintain a redundant failover to maintain a high state of system availability.

3. Discussion of internet speeds, service tier and pricing levels: The service will be marketed during the mainline or distribution construction and as the service is sold, local outside plant employees will bury the drop fiber and install the CPE to turn up the customers. The estimated number of establishments to be served following the mainline or distribution fiber build is estimated based on the internet take rate average in rural America, which is 63% per the study released by Pew research' "Digital gap between rural and nonrural America persists", published May 19, 2017. Per the RUS mapping tool, the establishments passed will be 153 and 63% take rate will calculate to be 97 over a two-year period. Every household within the PFSA will be offered a starting broadband service of 50.0/5.0 for \$39.95 for 12

months as the promotional rate when the system is complete and then will be moved to the retail rate of \$59.95. Higher bandwidths and promotions will also be available (see below) with no data limits:

Service Tier (no data limits)	12 Month Promotional Rate	Retail Rate
50.0/5.0	\$39.95	\$59.95
100.0/10.0	\$49.95	\$69.95
300.0/20.0	\$69.95	\$89.95
500.0/25.0	\$89.95	\$109.95

4. Technical Evaluation, Timeline and Explanation of Total Project Costs: The total infrastructure cost for the proposed Five Points Community Broadband Project is \$396,198. The infrastructure is proposed to be funded through the use of Alabama Broadband Accessibility Grant funds in the amount of \$79,239 and RTC cash reserves in the amount of \$316,959. RTC will fund continuing operating expenditures from internal working capital available funds.

Attachment A-4 is a technical evaluation of the project certified by an engineer, containing our project cost estimate, project schedule and timeline, as well as, a .shp file and ADECA map file of the proposed project.

5. Description of Applicant: TEC has been meeting the communication needs of the rural south since 1923. Roanoke Telephone Company, Inc. (RTC) is a wholly-owned subsidiary of TEC and has provided voice service since 1951 and internet service since 1995. Currently, RTC serves broadband to over 1,300 locations in Chambers county, AL and has made 10.0/1.0 service available to over 90% of the 160 square miles of the incumbent LEC service area. With RTC's highly skilled and experienced customer care and technical staff of 11 employees located in Roanoke, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network. The Five Points Community Broadband Project is an extension of the existing broadband services and outside plant connectivity to reach the unserved and underserved locations in the east central portion of Chambers county, AL that cannot feasibly be reached without grant funding or other opportunities.

Another subsidiary of TEC, National Telephone of Alabama, Inc., was awarded a Broadband Initiatives Grant by RUS in 2010. This project was completed on time and on budget and was managed by the same TEC team that will be managing this project with the addition of the local supervisors.

Management Team Experience:

Joseph D. Fail

Leading TEC and Roanoke Telephone Company, Inc. (RTC) is our President, Mr. Joseph D. Fail. Mr. Fail has been President and majority stockholder of TEC since 1990. Mr. Fail currently is President and Chairman of the Board for the majority of TEC's subsidiary companies. Mr. Fail graduated from Bay Springs High School and furthered his education at Louisiana State University by receiving a Bachelor of Science Degree in Electrical Engineering in 1961. At this time, he began his engineering career with Bay Springs Telephone Company, Inc. in Bay Springs, Mississippi. In 1968, Mr. Fail formed Joseph D. Fail Engineering Company, specializing in telecommunications engineering. In 1972, Mr. Fail formed TEC, the parent company for RTC.

Mr. Fail has a Professional Engineering License in the States of Louisiana, Mississippi, Oklahoma, and Texas. He has served as President of the Eastern Borrowers' Association (EBA), served on the Board of Directors for many years. Mr. Fail has been a Director and President of Alabama-Mississippi Independent Telephone Association. He is a member of the National Society of Professional Engineers, Mississippi Engineering Society, Association of Communication Engineers, and the Independent Telephone Pioneer Association. He is a Board Member for the Southern Baptist Convention's Guidestone Financial Resources and a Board Member at William Carey College in Hattiesburg, Mississippi. He is a member of the Bay Springs Chamber of Commerce.

Mrs. Joey F. Garner

Joey F. Garner serves as Executive Vice President at TEC. Joey has over twenty-five years' experience in the telecommunications industry and has worked with TEC and its subsidiaries, including Roanoke Telephone Company, Inc. (RTC) since 1991. She is a graduate of Vanderbilt University where she received a Bachelor of Arts in English.

Through her years of employment with TEC Joey has worked in the Commercial and Employee Benefits Departments. Joey also established TEC's marketing department in 1993. At this time, Joey worked closely with TEC's local telephone companies, including RTC, to develop an annual marketing plan and budget for each company. The marketing plan includes monthly bill inserts, newspaper advertisements, radio and television advertisements, billboards, web site, and on-site collateral. Joey has since become the Executive Vice President and leads the TEC team and works

daily with RTC's commercial, operations and billing departments to establish new product offerings and pricing structures.

Joey is a board member for a number of TEC's companies, including RTC. She was selected as Mississippi's Business Woman of the Year in 2009. Joey is a past board member of OPASTCO and of the Alabama-Mississippi Telephone Association (AMTA). She currently serves as a board member for the OmniBank.

Mr. Joseph C. Piro

Joseph C. Piro has over thirty years; experience in the telecommunications industry in the area of Finance and Administration. He has been employed by TEC since 1994. He currently serves as Vice President of Administration and Treasurer for TEC. Mr. Piro's current areas of responsibility include Accounting, Human Resources, and Information Technology.

Recently, Mr. Piro was key in the centralization of TEC's Human Resources Department and the standardization of policies and practices that involve hiring, employee retention, benefits, safety, and payroll. He also coordinated and worked closely with RTC and TEC subsidiaries in the centralization of cash management to provide increased earnings on excess cash and improved internal controls over accounts payable. Additionally, Mr. Piro led the team of TEC management that established electronic data storage for more efficient use of resources including the ability to retrieve documents through remote connections.

Mr. Piro brings years of experience with TEC companies and has great management skills that he has exemplified during his fifteen years of service with TEC. He has implementing improved management reporting timelines for financial statement presentations that greatly have benefitted all TEC companies. With his numerous responsibilities at TEC, Mr. Piro has exhibited leadership qualities that will enhance the ongoing survivability of the Five Points Community Broadband Project.

Mr. Piro currently serves on the Board of Directors for numerous TEC subsidiary companies. He graduated from Northeast Louisiana University in 1986 after earning a Bachelor of Business Administration Degree in Accounting. He is also licensed in the State of Mississippi as a Certified Public Accountant.

Mr. James W. Garner

James W. Garner is Vice President of Operations for TEC, the parent company of Roanoke Telephone Company, Inc. (RTC). James is responsible for TEC's operations department, working closely with RTC and its sister companies. He leads the operations department in every aspect, including strategic planning, budgeting, project management, construction, technology upgrades,

new service implementation and maintenance. He works daily with operations team members insure that RTC and sister companies provide quality broadband services to all customers.

In 1995 James established the dial-up Internet business for RTC and, subsequently, for the remainder of TEC's ILEC properties including RTC. This effort included developing business plans, selecting technology and vendors, developing timelines and budgets, implementation schedules and creating product offerings. The project also involved working with construction contractors and engineering consultants. As ADSL access technology emerged, James led the local management team in the introduction of broadband Internet access to RTC customers.

James played the lead role in building TEC's legacy ATM core network, which enabled RTC and the other TEC companies to provide superior broadband access. Continuing to work with TEC's operations team and local telephone companies, James directs the Ethernet project implementation and the TEC Security project. James is particularly active in special projects involving strategic fiber optic deployments to deliver Ethernet services to schools and industrial park projects within the TEC service area.

James is a graduate of Mississippi State University with a Bachelor of Science and a Masters of Science Degree in Mechanical Engineering where he focused his post-graduate work on thermal analysis and fluid dynamics. After working at Rockwell International on various NASA Space Shuttle and Department of Defense weapons projects, James began working for TEC in 1992. Currently, James serves as board member for a number of TEC's subsidiaries. He also has also served as President of the Alabama-Mississippi Telephone Association (AMTA) and as a board member for the Tennessee Telephone Association. James has also served on numerous industry committees, including the OPASTCO Technical Committee. He also been a member of the NECA Rate Development Task Force Cost Recovery Committee.

Ms. Lisa Wigington

Lisa Wigington is Director of Revenue Assurance and Regulatory Compliance for TEC, a communications company offering voice, broadband and data solutions to business and residential customers throughout the Southeast. Lisa holds a Bachelor and a Master of Professional Accountancy from Mississippi State University and worked in public accounting for the regional firm Whitaker, Lipp and Healea for four years before moving to the telecommunications industry. Lisa is a Certified Public Accountant and holds a Certification as a Project Management Professional. She has been employed with TEC for 24 years, first in the financial department and currently in operations, creating models for new products and product lines and managing the initiation, planning and execution of those projects.

In November 2005, Lisa was directed to plan and execute a billing conversion for nine of the

TEC affiliates, including Roanoke Telephone Company, Inc. (RTC). Lisa created timelines, gathered a small conversion project team and assigned tasks. The team converted over 30,000 billing records for the nine companies, including building call plans, testing and analyzing call records side by side, creating plant facilities records and CABs billing records for each of the nine companies over an eighteen-month period. When the conversion was complete, Lisa assembled a Billing Operations Support team and trained them to continue the everyday operations of the billing system and to support the companies. This process also included preparing a set of operations procedures for the monthly billing cycle.

In December 2008, Lisa was assigned the task of developing a new line of business using existing personnel and resources. A home security division was launched in three companies, including RTC. Lisa created the financial model, which included a breakeven analysis, and presented to executive management for approval. Once approved, Lisa assembled security teams at each of the companies, set up training for certifications for these members, and created all required forms for the sales agreements and installation checklists. Lisa also set up an agreement with a third-party monitoring company for the monitoring support. An incentive sales plan was then created, and the team has become very successful.

From 2008 to present, Lisa worked with the TEC Operations team, consisting of James Garner, Forrest Collier and Brent Fisher on several additional projects; the Ethernet upgrade project, IPTV project, the soft switch installation project for six telephone companies and most recently the mapping migration and upgrade for six companies. Lisa and the team have a close working relationship to the engineering consulting firm and are heavily involved in the construction projects for all of the affiliate companies, including RTC. The operations team is responsible for developing construction projects, creating a capital budget, creating and managing the timelines and action items for each project and is in constant communication with the company plant personnel, engineers and contractors to ensure execution of each project.

In 2010 Lisa wrote a Broadband Initiatives Project (BIP) application for National Telephone of Alabama, Inc. (another subsidiary of TEC), which was awarded by RUS. Lisa and the operations team successfully managed the construction and all compliance reporting of this successful BIP project and it was completed on time and within budget.

Mr. Brent Fisher

Brent Fisher joined TEC in 1999 bringing 23 years of experience in the Information Technology and Network Communication fields. He currently serves as Director of LEC Network Operations at TEC and works daily with Roanoke Telephone Company, Inc. (RTC) and its sister companies.

Brent's experience includes designing and maintaining large LAN / WAN infrastructures utilizing state of the art routers and switching equipment. Through his administration of internet service provider facilities he has garnered vast knowledge and experience of Internet Protocol switching and Network integration.

Using this experience and knowledge, Brent was instrumental in building TEC's ATM "Core" backbone. Working closely with the TEC operations group, Brent led this effort that made TEC the first ILEC to inter-work its network through a carrier's cloud. This backbone is used to transport Broadband traffic destined for other TEC holdings and traffic bound for the internet gateway. As a leader on TEC's operations team, Mr. Fisher works closely on a daily basis with each of TEC's six telephone companies, including RTC, to insure the local connectivity is working effectively.

Brent earned a Bachelor's Degree in Business from Belhaven College and holds many certifications in the Computer and Networking industry. He also holds credentials as a Project Management Professional and a Certified Data Processor.

Mr. Forrest Collier

Forrest began his career in the telecommunications industry in 1984 with Radio Engineering and Maintenance Company (REMCO) as a Communications Technician. He then worked for Western Union Telegraph Company as a Microwave Maintainer supporting networks throughout Ohio. Forrest returned to REMCO as Service Manager coordinating the technical service operations.

He served as Systems Operations Manager for Paging USA in Indianapolis, Indiana, with the responsibility for wireless networks throughout the state of Indiana.

Forrest later returned to Ram Technologies, the parent company of REMCO, as Vice President of Engineering. In this position he was responsible for paging networks in multiple states, switching centers for paging, call centers and long distance networks. In 1999 Ram Technologies sold its assets to Unity Communications of Ridgeland MS. Forrest came to Unity as Vice President of Engineering with the responsibility for all of Unity's paging networks, facilities and IT departments.

In 2002 Forrest accepted a position with Cadence Design Systems as a Project Manager. Cadence sold the Mississippi location to Motorola and then became part of Freescale Semiconductor. At Freescale, Forrest had responsibility as Analog Products Division, World Wide Program Controller with oversight for projects globally. He later accepted the position as Project Management Office Manager coordinating project management for Analog globally with a staff of 25 project managers. Freescale executed IC design projects for companies including

Sony, Samsung, Visteon, CASS Automotive, Intel and many others. The PMO team was responsible for developing budgets and timelines and managing project teams with monitoring / controlling project cost, scope and schedule. While at Freescale, Forrest received his Project Management Professional (PMP) Certification from the Project Management Institute.

In 2008 Forrest joined TEC and now serves as the Director of Operations with responsibility for Outside Plant Operations in TEC's six telephone companies, including Roanoke Telephone Company, Inc. (RTC). Forrest works with the various markets on day to day operations, plant and facilities issues and coordination of safety. He has brought his experience to TEC to enhance project management capabilities. With RTC, Forrest applies his project management experience daily. While at TEC, Forrest has driven numerous projects including the renovation of multiple offices and upgrades of central office facilities. Additionally, Forrest has implemented safety procedures at RTC and other telephone companies. Forrest works daily with the operations management team to insure directives are communicated with local managers and implemented according to the proper guidelines.

Ms. Vickie Cummings

Vickie Cummings is the Sales Manager for the TEC ILEC markets. Ms. Cummings began her career with RTC in 1987. Her career began as an Administrative Assistant to Charles May, Plant Manager in the Roanoke market. While working under the supervision of May she was promoted and transitioned to serve in multiple roles within the company. She served in billing services as well as assisting in plant and office conversions. She was a working part of two switch conversions early in her TEC career. The first conversion, and certainly the largest, was the move from an XY Switch to Digital. This conversion involved over 5500 access lines.

With some background and understanding of the Roanoke facilities and services, Ms. Cummings was offered the opportunity to serve in Marketing and Public Relations. In this role she helped to promote the company by developing materials and relationships, including customer and employee newsletters, advertisements, and awareness. She worked within the community to promote TEC through civic involvement. She worked with local Chambers of Commerce and Industrial Development. Ms. Cummings served in this position until being offered the opportunity help develop a local sales effort within the Roanoke market.

In 2012 Ms. Cummings was promoted to Supervisor of the Roanoke business office where she over saw day to day operations and managed staff. Then, in October of 2017, Ms. Cummings was promoted to her current position of ILEC Sales Manager. In this role she helps to manage and oversee the ILEC sales group in Alabama, Mississippi and Tennessee. Her group is responsible for business relationship development and the sales of TEC products and services.

She maintains her physical presence still in the Roanoke market location and helps maintain the day-to-day operations of the business office.

Ms. Cummings is an active presence in the Roanoke, Alabama community, her home. She is an active member and President-Elect of the Roanoke Rotary Club, active member of the Randolph County Chamber of Commerce, services with the local Economic Development, a member of First United Methodist Church of Roanoke, serves with Randolph County United Way, and is a graduate of Leadership Randolph County.

Mr. Michael Caypless

Michael is the Plant Supervisor for RTC and is responsible for the day to day outside plant operations and construction for the company. Mr. Caypless began his career with RTC in 2001. Michael serves his community as a volunteer fireman for the Corinth Volunteer Fire Department.

Mr. Kyle Burgess

Kyle Burgess serves as the Central Office Network Supervisor for Roanoke Telephone Company. Mr. Burgess began his career with Roanoke Telephone Company, Inc. in 1994. Mr. Burgess is an integral part of the daily operations in the Roanoke location. He is responsible for network and switch operations.

Mr. Burgess is a life-long resident of Roanoke and Randolph County. Kyle is an active member of his community and volunteers in his free time to coach girls' softball.

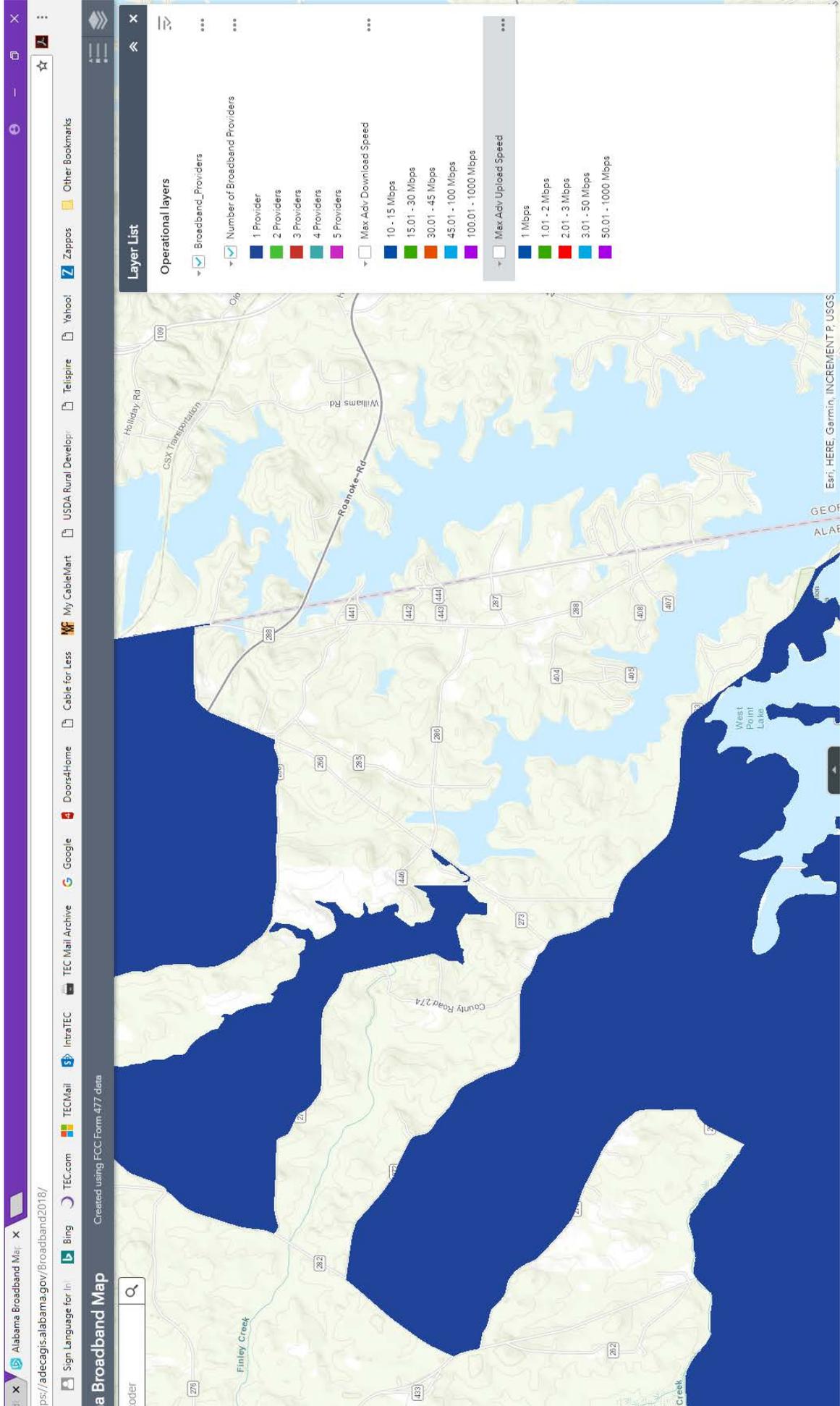
Five Points Community Broadband Project Team Track Record

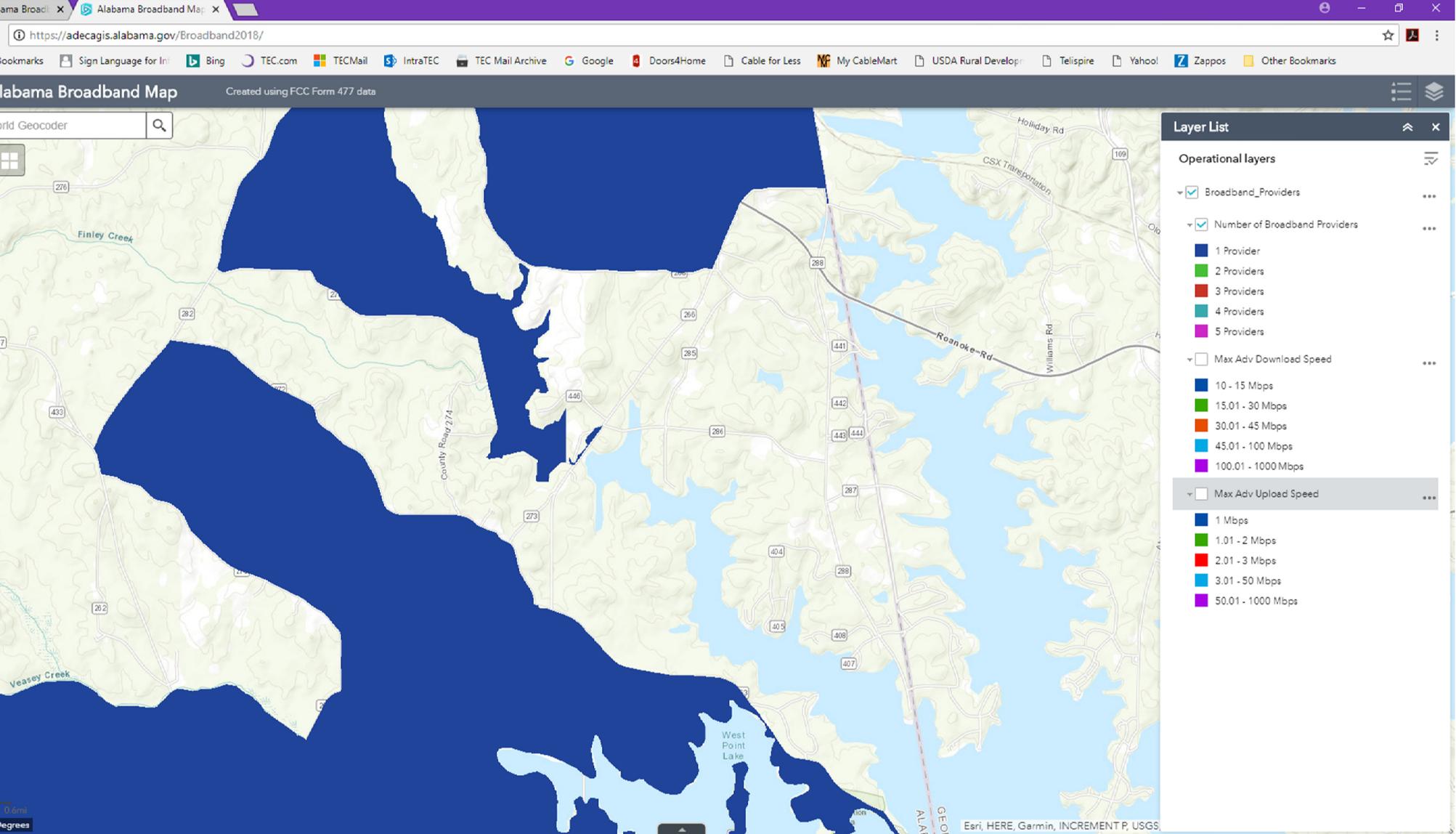
Roanoke Telephone Company, Inc. (RTC) management team has a combined total of over 200 years of experience in the telecommunications industry. The team working to secure and proceed with this project consists of Mr. Joseph Fail, Mr. Joe Piro, Mr. James Garner, Mrs. Joey Garner, Ms. Lisa Wigington, Mr. Brent Fisher, Mr. Forrest Collier, Mr. Michael Caypless, Mrs. Vickie Cummings, and Mr. Kyle Burgess, as well other experienced managers and staff. The majority of these team members average over twenty years of experience working with RTC and its sister companies. As mentioned above this is basically the same core management team that was awarded the BIP project by RUS at National Telephone of Alabama, Inc. which was successfully completed on budget and on time.

Mr. Garner is leading the effort to reach more rural customers in Chambers county. As Vice President of operations for TEC, Mr. Garner works with RTC and sister companies on a daily basis to ensure that all projects are completed and goals are fulfilled. He works closely with the

management team of Lisa Wigington, Forrest Collier and Brent Fisher to make sure the network is at full capacity to serve RTC customers. Mr. Garner, Ms. Wigington, Mr. Fisher and Mr. Collier currently meet weekly to coordinate all outside plant and central office functions at RTC. The team plans to continue this type of planning session with the direct focus on the Five Points Community Broadband Project if our application is approved.

Within the realm of the proposed funded service area, RTC plans to follow similar steps that currently are followed for new technology and product offerings. Under the leadership of Mr. Garner, the operations department introduces new technologies for RTC and sister companies. Ms. Wigington and Mrs. Garner review the offerings and suggest new product packages and pricing. Once the new products are approved by Mr. Garner, the experienced staff of Mr. Collier and local staff will assist with the implementation in Chambers county. All aspects of a new product are reviewed and discussed by the team working on this project. These aspects include cost, revenue, billing, network management, implementation, training, and marketing. Each team member has special talents that combine with others to insure every detail is covered thoroughly and diligently. This team can absolutely complete the project within two years of the effective date of the grant award.





**Roanoke Telephone Company, Inc.
Five Points Community Broadband Project
Preliminary Technical Evaluation by Certified Engineer**

System Design and Cost Estimate

A detailed description of the existing network: TEC has been meeting the communication needs of the rural south since 1923. Roanoke Telephone Company, Inc. (RTC) is a wholly-owned subsidiary of TEC and has provided voice service since 1951 and internet service since 1995. Currently, RTC serves voice to 2,748 customers in its certificated area and internet service to 1,313 customers in Randolph county, AL and has made broadband available to over 90% of the 160 square miles of the incumbent ILEC service area. Currently, RTC passes approximately 10,675 locations with broadband service in Randolph county in Alabama. With RTC's highly skilled and experienced customer care and technical staff of 11 employees locally located in Roanoke, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network.

Standards based, RUS approved, technology is used, and the network has been constructed using RUS standard construction practices. RTC currently has 31 remote concentrators (Adtran TA5000) positioned throughout its network, which are served as fiber to the node (FTTN). Approximately 93% of the census blocks included in the serving area are utilizing the existing copper plant. Utilizing ADSL2+ and VDSL technology in the remotes, this copper plant is being bonded to provide 25.0/3.0 broadband service up to 8,000 feet of the remote concentrators. Each serving remote has been constructed with carrier grade DC power plants and batteries with at least 8 hours of backup in the event of a long-term power outage. All sites are monitored by remote alarm systems and alarms are responded to 24X7 by on-call and network operations center (NOC) personnel. If the commercial power were to be affected for an even longer period, TEC can provide longer-term temporary power via fixed or portable generators as necessary. A detailed disaster recovery plan is on file and updated annually.

Approximately 7% of the census blocks included inside the service area are being served by a fiber to the home network design. The equipment strategy for any expansion project is to leverage existing fiber as much as possible to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through a designated LCP cabinet and distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Five Points Community

Broadband Project will not require upgrades to the existing network but will be an extension of that network utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10Gbps or Point to Point 10Gb/s connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location.

A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30 Gbps of peering bandwidth, with the ability to scale it higher as bandwidth usage grows. This network facilitates excellent response times across the network with minimal latency. Latency from TEC's network's edge to our Internet peering locations is typically well below 20ms.

A detailed description of the proposed network: The proposed plan is to connect to the fiber at RTC's existing Brandon Cove remote located on Chambers county road (CR) 266 with fiber. An Optical Line Terminal (OLT) will be installed in this existing Adtran TA5000 remote. From this location to the intersection of CR 266 and CR 268 is approximately .3 miles and this is the site planned for the pad mounted Local Convergence Point (LCP) cabinet.

From this intersection, fiber would be constructed approximately .3 miles east on CR268 and 1.3 miles south on CR 285, then east on CR 286 for 1.1 miles and north on CR 288 for 1.1 miles and south on CR 288 for 1.1 miles. On the route down CR 288, there are additional routes east that will be built (CR 442 - .2 miles and CR 287 - .30) and an additional extension off CR 287 north on CR 443 for .4 miles. Two distributed 1:32 pole mounted splitters have been planned at the intersection of CR 285 and CR 286 and the intersection of CR 287 and CR 288.

This proposed design will deploy single mode fiber optic cables constructed utilizing RUS approved construction techniques. All of the fiber will be buried and placed in existing previously disturbed public right-of-ways. To provide a more secure reliable fiber footprint, all of the buried fiber will be placed at a minimum depth of 36 inches unless other depths are required by the affected highway, railroad, municipalities or other authorities. The two methods of buried construction that will be utilized are predominately plowing with directional boring utilized when road or stream or other types of crossings are required. Directional boring will also be utilized when it is not possible to plow or boring is more feasible construction. Along the

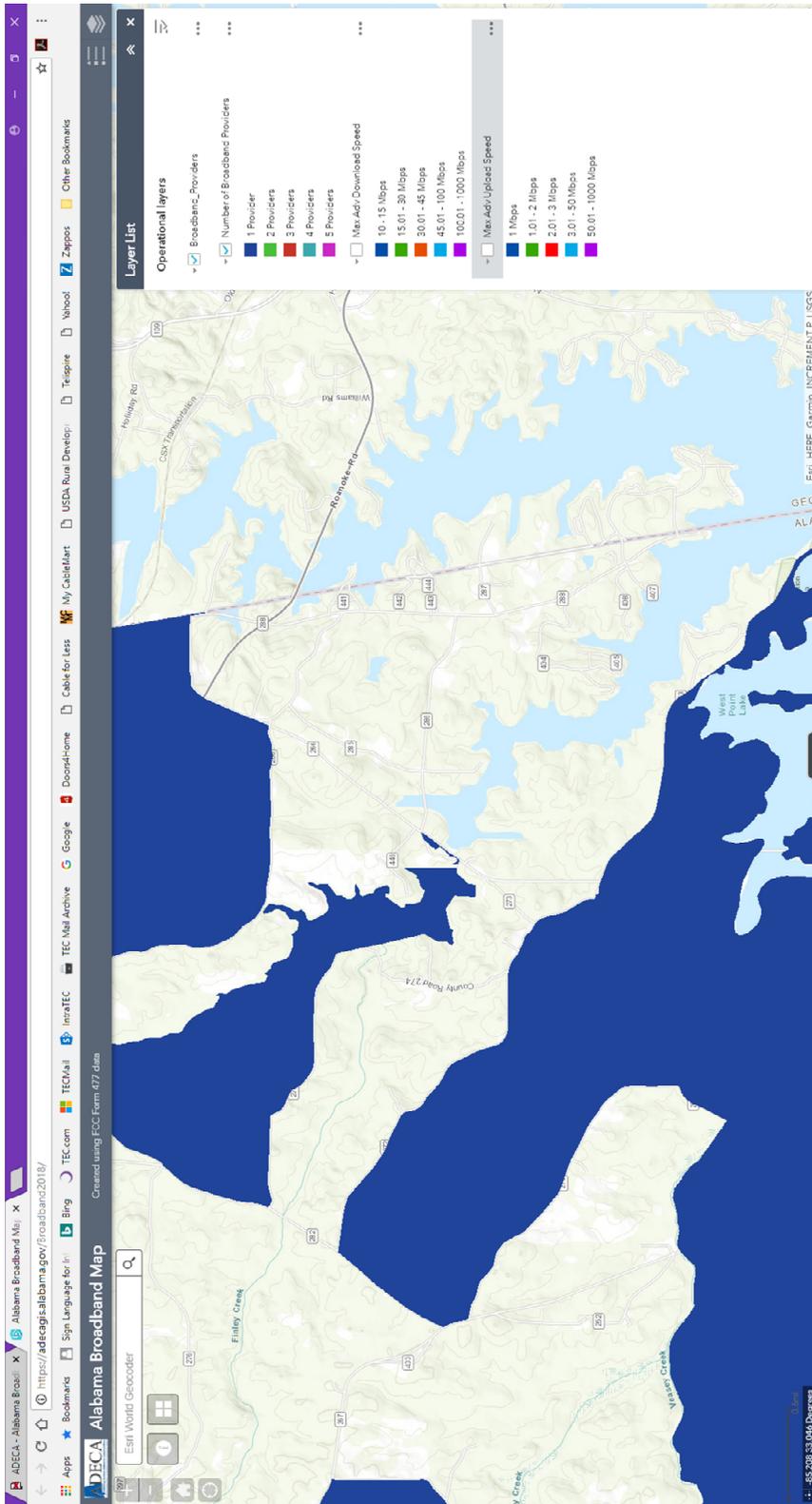
buried fiber route, flush-mounted handholes will be deployed with the proposed fiber being accessible at each location. This will allow for easy access to the network and also makes future expansions more economical and feasible.

At the completion of the mainline FTTH construction, the contractor will set the LCP cabinet (pad mounted) and RTC technicians will install the OLT in the existing Brandon Cove remote. The fiber build has been carefully planned to follow the county roads to cover all existing locations and two handholes have been planned every mile with slack fiber to allow for future growth. The LCP cabinet has been sized to cover the estimated two-year take rate of 97, and the cabinet is large enough to add splitter cards for future expansion.

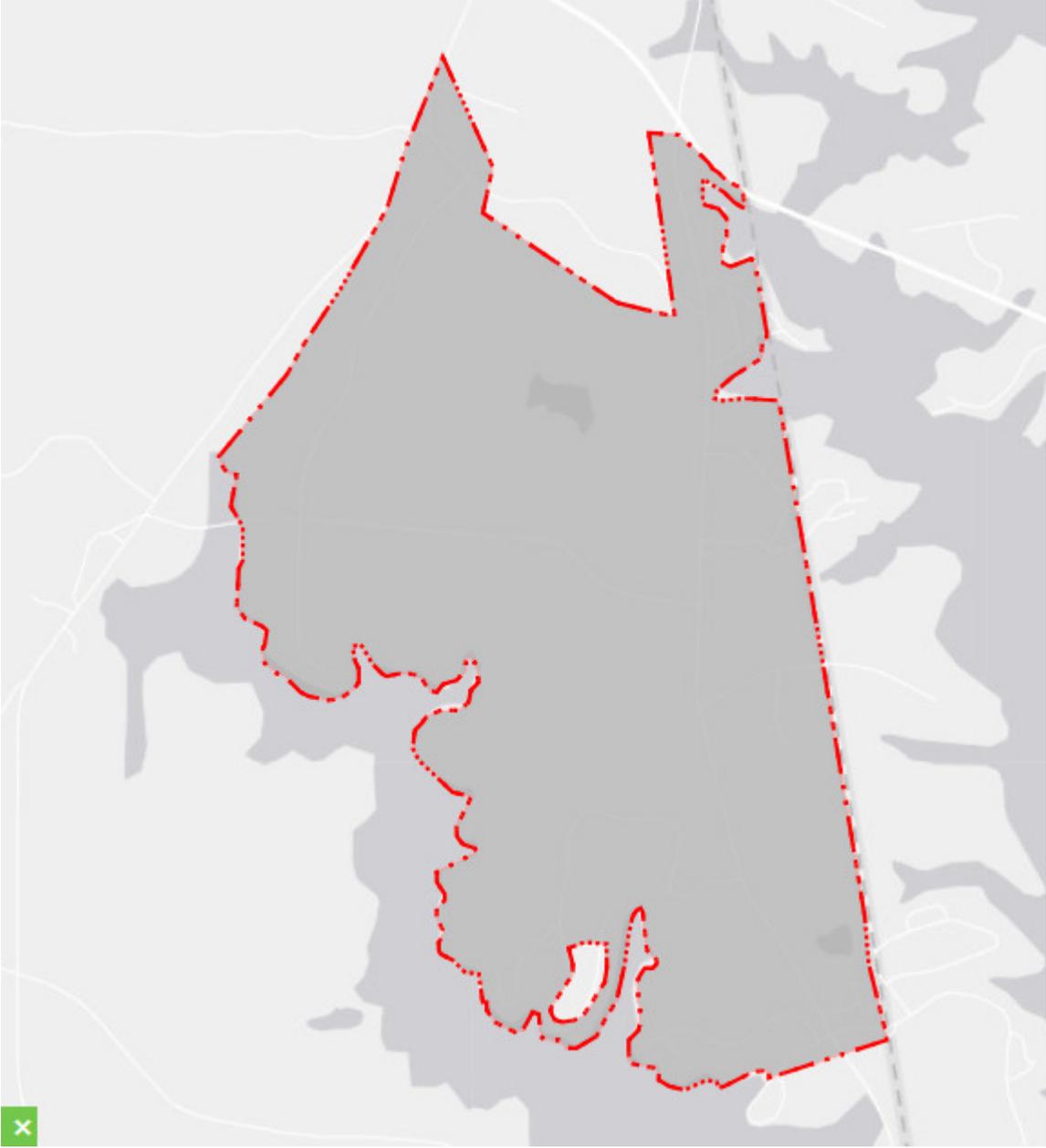
The PFSA will be built for up to a Gigabit offering and will not be oversubscribed at all based on the minimum required offering of 25.0/3.0 per user. Standard GPON technology will have virtually no link loss. All systems will maintain a redundant failover to maintain a high state of system availability.

Roanoke Telephone Company, Inc.		<u>Attachment B-1</u>				
Project Budget						
BUDGET	No. of Units	Unit cost	Total	Grant	Other Funding	Description
<u>BROADBAND SYSTEM</u>						
Electronic Equipment (FTTH, wireless, etc.) LCP cabinet	1	8000	8,000.00	1,600.00	6,400.00	Note: These items are general in nature, applicants should modify as required to describe their specific project. 288 port LCP Cabinet mounted on a concrete pad and fiber tails with connectors (includes estimate for land lease or purchase)
Electronic Equipment (FTTH, wireless, etc.) OLT for the Remote	1	5000	5,000.00	1,000.00	4,000.00	Optical Line Terminal (OLT) for Remote
Electronic Equipment (FTTH, wireless, etc.) Splitter cabinets	2	750	1,500.00	300.00	1,200.00	Pole mounted 1:32 Distributed Splitters
Outside plant (fiber, coaxial, copper, etc.) - Distribution fiber	6.1	\$32,400	197,640.00	39,528.00	158,112.00	Proposing 6.1 miles of 96 count buried fiber (unit cost includes fiber, fiber pedestals, and handhooks with slack fiber and cost of contractor for direct bury or boring as needed)
Customer premises equipment	97	\$500	48,500.00	9,700.00	38,800.00	CPE includes an Optical Network Terminal (ONT), Fiber Network Interface Device (NID) and Uninterrupted Power Source (UPS)
Outside plant (fiber, coaxial, copper, etc.) - Fiber drops	97	\$825	80,025.00	16,005.00	64,020.00	Fiber drops assumes an average of 550 feet from the road to the home to the Fiber NID and the ONT and UPS will be mounted (fiber drop and labor price)
Engineering			55,533.00	11,106.60	44,426.40	Includes staking, right-of-way permits, contractor negotiation, onsite resident engineer for project, cut sheets and testing
Total Broadband System			396,198.00	79,239.60	316,958.40	
TOTAL			396,198.00	79,239.00	316,959.00	
				20.00%	80.00%	

ADECA Broadband Map Reflecting Unserved Areas in Alabama (Five Points Area)



Proposed Project Shape File



Professional Engineer Certification

I the undersigned, certify that the proposed project will work as described in the foregoing Preliminary Technical Evaluation, and can deliver the proposed services outlined in the Application to all premises in the proposed service area(s). The project cost estimate and schedule are typical and customary for the proposed service area(s). Moreover, the proposed system can meet the proposed timeline and major project milestones and can be completed within two years.

9-11-2018

(Date)



(Certifying Engineer's Signature)

George H. Wyatt, Jr.

Name (Printed)

President & Chief Executive Officer

Title

Palmetto Engineering & Consulting

Company

Registration Number: 30328

State of Registration: AL



Project name: Five Points Community Broadband Project

Legal name of entity: Roanoke Telephone Company, Inc.

Mailing address: 236 East Capitol St, Jackson, MS 39201

Name and title of CEO: James Garner, Vice President of Operations

Grant Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone: 601-354-9070 Email: LisaW@TEC.com

Project Budget

1. Explanation of Total Project Costs: The total infrastructure cost for the proposed Five Points Community Broadband Project is \$396,198. The infrastructure is proposed to be funded through the use of funds from the Alabama Broadband Accessibility Fund in the amount of \$79,239 and RTC cash reserves in the amount of \$316,959. RTC will fund continuing operating expenditures from internal working capital available funds. An itemized schedule of eligible project expenses is attached in the file marked Attachment B-1.

2. Financial Information and Sustainability:

a. The Five Points Community Broadband Project is an upgrade and extension of RTC's existing broadband services and outside plant connectivity to reach the unserved and underserved locations in the north eastern portion of Chambers county, AL that cannot feasibly be reached without grant funding or other opportunities. RTC will fund continuing operating expenditures from internal working capital available funds and utilize economies of scale to maintain an overall company positive cash flow. A project budget and the financial assumptions used to complete a five-year projection starting with our audited 2017 financial statements is attached in Attachment B-1 and B-2. Additionally, the 2016 and 2017 audited financial statements and the five-year financial projections are available upon request.

b. RTC will provide an 80% match in cash to build the project with a 20% grant award from the Alabama Broadband Accessibility Fund, as evidenced by the letter attached. RTC and TEC Services, Inc. are both wholly owned subsidiaries of TEC. RTC and its' sister companies participate in a consolidated cash management arrangement with Regions Bank. The account is listed under the name TEC Services, Inc. however, each affiliate company has access to and can write checks directly from this account up to its' share of the cash. A letter detailing and confirming the amount available to RTC is attached in B-3 and a copy of the bank statement is available upon request.

3. Accomplishing Project Deliverables. TEC has been meeting the communication needs of the rural south since 1923. Roanoke Telephone Company, Inc. (RTC) is a wholly-owned subsidiary of TEC and has provided voice service since 1951 and internet service since 1995. Currently, RTC serves broadband to over 1,300 locations in Chambers county, AL and has made broadband available to over 90% of the 160 square miles of the incumbent ILEC service area. With RTC's highly skilled and experienced customer care and technical staff of 11 employees located in Roanoke, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office and network operations center (NOC) located in Jackson, MS for design and construction of fiber plant and maintenance of the network.

Roanoke Telephone Company, Inc. (RTC) management team has a combined total of over 200 years of experience in the telecommunications industry. The team working to secure and proceed with this project consists of Mr. Joseph Fail, Mr. Joe Piro, Mr. James Garner, Mrs. Joey Garner, Ms. Lisa Wigington, Mr. Brent Fisher, Mr. Forrest Collier, Mr. Michael Caypless, Mrs. Vickie Cummings, and Mr. Kyle Burgess, as well other experienced managers and staff. The majority of these team members average over twenty years of experience working with RTC and its sister companies. As mentioned above this is basically the same core management team that was awarded the BIP project by RUS at National Telephone of Alabama, Inc. which was successfully completed on budget and on time.

Mr. Garner is leading the effort to reach more rural customers in Chambers county. As Vice President of operations for TEC, Mr. Garner works with RTC and sister companies on a daily basis to ensure that all projects are completed and goals are fulfilled. He works closely with the management team of Lisa Wigington, Forrest Collier and Brent Fisher to make sure the network is at full capacity to serve RTC customers. Mr. Garner, Ms. Wigington, Mr. Fisher and Mr. Collier currently meet weekly to coordinate all outside plant and central office functions at RTC. The team plans to continue this type of planning session with the direct focus on the Five Points Community Broadband Project if our application is approved.

Within the realm of the proposed funded service area, RTC plans to follow similar steps that currently are followed for new technology and product offerings. Under the leadership of Mr. Garner, the operations department introduces new technologies for RTC and sister companies. Ms. Wigington and Mrs. Garner review the offerings and suggest new product packages and pricing. Once the new products are approved by Mr. Garner, the experienced staff of Mr. Collier and local staff will assist with the implementation in Chambers county. All aspects of a new product are reviewed and discussed by the team working on this project. These aspects include cost, revenue, billing, network management, implementation, training, and marketing. Each team member has special talents that combine with others to insure every detail is covered thoroughly and diligently.

TEC and Joseph D. Fail Engineering Company (JDFEC) have planned and executed hundreds of cable plant infrastructure construction projects over the years. Outside Plant (OSP) contractors will complete Rural Utilities Service (RUS) bidder qualification forms and be cleared by engineering to have experience with RUS standards of construction. All activity will be supervised by resident engineers and inspectors from Joseph D. Fail Engineering Company (JDFEC), a licensed engineer, a member of ACE, with over 50 years of experience with RUS projects. JDFEC has also reviewed the network diagram and system plan and approved the project.

At the completion of distribution construction, the contractor will set the LCP cabinet (pad mounted) and RTC technicians will install the OLT in the Brandon Cove remote. The service will be marketed during the fiber distribution construction and as the service is sold, local outside plant employees will bury the drop fiber and install the CPE to turn up the customers. The estimated number of establishments to be served following the fiber distribution build is estimated based on the internet take rate average in rural America, which is 63% per the study released by Pew research' "Digital gap between rural and nonrural America persists", published May 19, 2017. Per the RUS mapping tool, the establishments passed will be 153 and 63% take rate will calculate to be 97. Every household and business within the PFSA will be offered broadband service at the download 50 mbps and an upload of 5 mbps and above when the system is complete within the two-year timeframe from award acceptance to completion. The fiber distribution build has been carefully planned to follow the county roads to cover all existing locations and a minimum of one handhole has been planned every mile with slack fiber to allow for future growth. The LCP cabinet has been sized to cover the estimated take rate of 97, and the cabinet is large enough to add splitter cards for future expansion.

Attached is Attachment B-1 with the construction build-out schedule and project milestones on a quarterly basis. Also attached included in the file is a detailed budget of all projected expenditures related to Five Points Community Broadband Project.

4. Federal Funding. There have been no federal funds issued to RTC in this area.

Roanoke Telephone Company, Inc.

Attachment B-1

Five Points Community Project

Project Budget

BUDGET	No. of Units	Unit cost	Total	Grant	Other Funding	Description
<u>BROADBAND SYSTEM</u>						Note: These items are general in nature, applicants should modify as required to describe their specific project.
Electronic Equipment (FTTH, wireless, etc.) LCP cabinet	1	8000	8,000.00	1,600.00	6,400.00	288 port LCP Cabinet mounted on a concrete pad and fiber tails with connectors (includes estimate for land lease or purchase)
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Total Broadband System			396,198.00	79,239.60	316,958.40	
TOTAL			396,198.00	79,239.00	316,959.00	

20.00%

80.00%

**Roanoke Telephone Company, Inc.
Five Points Community Broadband Project
Financial Forecast Assumptions**

Attachment B-2

<u>Network Services Revenues:</u>	Assumption:
<u>Local Voice Service</u>	Voice service revenues are trending down historically and it is projected to continue at a 4% decline over the next five years.
<u>Broadband Data Service</u>	Broadband data service has historically been increasing and it is projected to continue this trend at 3.5%, in addition to the expected increase of customers related to the PFSA. RTC will be offering broadband data service at speeds of 50 Mbps downstream/5 Mbps upstream, at a rate of \$39.95 bundled with voice or as a standalone service for the first 12 month promotional period and then at a retail rate of \$59.95. Based on the interest from community leaders and homeowners in this community (and a research study by PEW Research Center on Rural Broadband Take Rates), the company has projected that the PFSA for the community connect project will have a 63% penetration rate by the end of year 2 of the project. RTC's current take rate is lower than this due to direct competition from a cable company within the city limits that only serves the denser portion of the service area. The cable company does not serve the area proposed for the grant funding. The company is projecting 32 new customers in year 1 and 65 new customers in year 2, and an additional 10 customers per year for years 3 and 4 from the PFSA. See calculations attached
<u>Video Service</u>	N/A
<u>Middle Mile Revenues</u>	N/A
<u>Network Access Service Revenues</u>	Network access revenues will continue to trend down at an estimated rate of 5% per year for the next 5 years. Though this is highly dependent on the rates issued by NECA, which are averaged by participation in the pool. The Universal Service Fund will remain constant over the next 5 years, with the company's participation in ACAM. The FCC revised the ACAM in 2018, retroactive to 2017, with an additional \$169,268 in 2018 and \$84,634 of funding per year for 2019 through 2027.
<u>Universal Service Fund</u>	
<u>Toll Service/Long Distance Voice</u>	Toll service and long distance will remain constant over the next 5 years per the current trend.
<u>Installation Revenues</u>	Installation revenues will remain constant over the next 5 years per the current trend.
<u>Amortized Grant Revenues</u>	
<u>Other Operating Revenues</u>	Other operating revenues will remain constant over the next 5 years per the current trend.
<u>Uncollectible Revenues</u>	Uncollectible revenues will remain constant over the next 5 years per the current trend.
Total Revenues	

EXPENSES

<u>Backhaul</u>	IP/Interconnection expenses have historically decreased as the company buys bandwidth in bulk with the other TEC affiliates, it reaches an economy of scale and bandwidth becomes cheaper, than if the company was buying it alone. Recently our transport and bandwidth have been renegotiated by the parent company and while increasing the bandwidth and the redundancy, the price was dramatically decreased. With this in mind and the fact that we have excess capacity now, we are projecting that this expense will remain constant over the projected period although we anticipate the amount of bandwidth consumed by the company will increase.
<u>IP/Interconnection</u>	
<u>Video Content If Applicable</u>	N/A
<u>Spectrum If Applicable</u>	N/A
<u>Network Maintenance/Monitoring</u>	Network Maintenance/Monitoring will remain constant, in that RTC and TEC does not anticipate hiring additional personnel and that the PFSA can be fully supported by the current employees.
<u>Utilities</u>	Utility expense will remain constant. Additional equipment will not increase utilities and community center will be donated space in a building owned by a community business.
<u>Sales/Marketing</u>	Sales/Marketing will remain constant. A portion of the current marketing budget will be directed toward the PFSA and Digital Literacy campaign.
<u>Customer Care</u>	Customer Care expense will remain constant, in that RTC and TEC does not anticipate hiring additional personnel and that the PFSA can be fully supported by the current employees.
<u>Corporate G&A</u>	Corporate G&A expense will remain constant, in that RTC and TEC does not anticipate hiring additional personnel and that the PFSA can be fully supported by the current employees.
<u>Property Tax</u>	Property tax expense will remain constant, in that the additional infrastructure will be a negligible increase in the assessment for property tax.
<u>Other Operating Expense</u>	Other Operating Expense will remain constant.
Total Expenses	
Net Operating Income	
<u>Interest Income</u>	N/A
<u>Other Non-Operating Income (Expense)</u>	Other Non-Operating Income (Expense) will remain constant. Made up of interest expense-customer deposits, gain and loss on sale of assets, prior year write-offs, lobbying, membership dues, scholarships, and charitable contributions
EBITDA	
<u>Depreciation - Community Connect Project Assets</u>	Depreciation - Five Points Community Project Assets were calculated using a Depreciation rate of 8.33% for Electronic Circuit Equipment and 4% for Outside Plant Cable, Alabama PSC approved depreciation rates
<u>Depreciation - Other Assets</u>	Depreciation schedules were run for the projected 5 years, with the current undepreciated assets, using the PSC approved depreciation rates.
<u>Amortization</u>	
<u>Interest Expense - Existing Debt</u>	
<u>Interest Expense - New Debt</u>	
<u>Income Taxes</u>	Income taxes were estimated using a 26% rate on all projected revenues.
Net Income (Loss)	

Roanoke Telephone Company, Inc.
 Five Points Community Broadband Project
 Financial Forecast Assumptions

		<u>Additions</u>					<u>Revenue</u>						
<u>Price</u>	<u>Year</u>	<u>Total Additions</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>Total Year</u>	<u>Customers from Previous Year</u>	<u>Total New Revenue</u>
39.95	2019	32	0	25	25	15	7,491	4,494	899	12,884	0	12,884	
59.95	2020	65	8	8	8	8	5,036	3,597	2,158	719	11,510	15,341	26,851
59.95	2021	10	3	3	2	2	1,888	1,349	540	180	3,957	69,782	73,739
59.95	2022	10	3	3	2	2	1,888	1,349	540	180	3,957	76,976	80,933

Roanoke Telephone Company, Inc.
Five Points Community Broadband Project
Financial Forecast Assumptions

ASSETS

<i>Current Assets</i>		Assumption:
Cash		Cash balance used in the operations of the company
Marketable Securities		N/A
Accounts Receivable		Accounts Receivable will remain constant over the next 5 years per the current trend.
Other Current Assets		Accounts Receivable will remain constant over the next 5 years per the current trend.
Total Current Assets		
<i>Non-Current Assets</i>		
Amortizable Asset - Net		N/A
Plant in Service - Community Connect Project Assets		Plant in Service - The Five Points Community Broadband Project Assets were calculated using the uniform system of accounts for the regulated Telecom Industry which require that the plant accounts be reduced by the grant funds received in the year of receipt, so only the 80% match portion of the plant was recorded. Total Plant in Service - Five Points Community Project Assets per books will be Total Project Cost \$396,198 Less Grant \$79,239 for a total of \$316,958.40. The breakdown of the cost per books is Electronic Circuit Equipment \$50,928.00 and Outside Plant Cable \$266,030.40. Engineering includes staking, right-of-way permits, contracting negotiations, onsite resident engineer for project, cut sheets and testing for LCP cabinet and middle mile buried fiber. The engineering costs were allocated to Electronic and Outside Plant based on the percentages of LCP Electronics total cost and the Outside Plant fiber distribution total cost.
Accumulated Depreciation - Community Connect Project Assets		Accumulated Depreciation - The Five Points Community Project Assets were calculated using a Depreciation rate of 8.33% for Electronic Circuit Equipment and 4% for Outside Plant Cable, Alabama PSC approved rates.
Plant in Service - Other Assets		Plant in Service - Other Assets additions and retirements were based on a 5 year projected Capital Budget.
Accumulated Depreciation - Other Assets		Accumulated Depreciation - Other Assets are based on schedules for the projected 5 year Capital Budget.
Other Non-Current Assets		Other Non-Current Assets will remain constant over the next 5 years per the current trend.
Total Non-Current Assets		
Total Assets		

LIABILITIES AND EQUITY

<i>Current Liabilities</i>		
Accounts Payable		Accounts Payable will remain constant over the next 5 years per the current trend.
Current Portion - Existing Debt		N/A
Current Portion - New Debt		N/A
Current Portion - Deferred Grant Revenue		N/A
Other Current Liabilities		Other Non-Current Assets will remain constant over the next 5 years per the current trend.
Total Current Liabilities		
<i>Non-Current Liabilities</i>		
Existing Debt		N/A
New Debt		New Debt - Company will fund the 80% match for the Five Points Community Broadband Project and all other planned capital expenditures from cash reserves and incoming revenue. There will not be additional debt.
Deferred Grant Revenue		N/A
Other Non-Current Liabilities		Other Non-Current Liabilities will remain constant over the next 5 years per the current trend.
Total Non-Current Liabilities		
Total Liabilities		
<i>Equity</i>		
Capital Stock		Capital Stock will remain constant over the next 5 years per the current trend.
Additional Paid-In Capital		N/A
Patronage Capital Credits		N/A
Retained Earnings		Retained Earnings will Increase due to Net Income assuming no Common Stock Dividends.
Total Equity		
Total Liabilities and Equity		

**Roanoke Telephone Company, Inc.
Five Points Community Broadband Project
Financial Forecast Assumptions**

			Total Assets by Year			Grant		
Grant	Part 32 Acct No.	Account Desc	2,020.00	2,021.00	2,022.00	2,020.00	2,021.00	2,022.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	8,000.00	8,000.00	8,000.00	1,600.00	1,600.00	1,600.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	5,000.00	5,000.00	5,000.00	1,000.00	1,000.00	1,000.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	1,500.00	1,500.00	1,500.00	300.00	300.00	300.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	197,640.00	197,640.00	197,640.00	39,528.00	39,528.00	39,528.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	33,286.00	48,500.00	48,500.00	8,321.50	9,700.00	9,700.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	34,296.00	80,025.00	80,025.00	6,859.00	16,005.00	16,005.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	2,160.00	2,160.00	2,160.00	432.00	432.00	432.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	53,373.00	53,373.00	53,373.00	10,674.60	10,674.60	10,674.60

		Total			Grant		
	Circuit Equipment	48,446.00	63,660.00	63,660.00	11,353.50	12,732.00	12,732.00
	Buried Cable	286,809.00	332,538.00	332,538.00	57,361.60	66,507.60	66,507.60
	Total	335,255.00	396,198.00	396,198.00	68,715.10	79,239.60	79,239.60
8.33% Depr	Circuit Equipment	2,018.00	5,303.00	5,303.00	473.00	1,061.00	1,061.00
4% Depr	Buried Cable	5,736.00	13,302.00	13,302.00	1,147.00	2,660.00	2,660.00
	Total	7,754.00	18,605.00	18,605.00	1,620.00	3,721.00	3,721.00
A/D	Circuit Equipment	2,018.00	7,321.00	12,624.00	473.00	1,534.00	2,595.00
A/D	Buried Cable	5,736.00	19,038.00	32,340.00	1,147.00	3,807.00	6,467.00
	Total	7,754.00	26,359.00	44,964.00	1,620.00	5,341.00	9,062.00

Company Funded

2,020.00	2,021.00	2,022.00			
6,400.00	6,400.00	6,400.00	8,000.00	8,000.00	8,000.00
4,000.00	4,000.00	4,000.00	5,000.00	5,000.00	5,000.00
1,200.00	1,200.00	1,200.00	1,500.00	1,500.00	1,500.00
158,112.00	158,112.00	158,112.00	197,640.00	197,640.00	197,640.00
24,964.50	38,800.00	38,800.00	33,286.00	48,500.00	48,500.00
27,437.00	64,020.00	64,020.00	34,296.00	80,025.00	80,025.00
1,728.00	1,728.00	1,728.00	2,160.00	2,160.00	2,160.00
42,698.40	42,698.40	42,698.40	53,373.00	53,373.00	53,373.00

Company Funded

37,092.50	50,928.00	50,928.00
229,447.40	266,030.40	266,030.40
266,539.90	316,958.40	316,958.40
1,545.00	4,242.00	4,242.00
4,589.00	10,641.00	10,641.00
6,134.00	14,883.00	14,883.00
1,545.00	5,787.00	10,029.00
4,589.00	15,230.00	25,871.00
6,134.00	21,017.00	35,900.00

Check Total

48,446.00	63,660.00	63,660.00
286,809.00	332,538.00	332,538.00
335,255.00	396,198.00	396,198.00
2,018.00	5,303.00	5,303.00
5,736.00	13,301.00	13,301.00
7,754.00	18,604.00	18,604.00
2,018.00	7,321.00	12,624.00
5,736.00	19,037.00	32,338.00
7,754.00	26,358.00	44,962.00

The logo for TEC (Telephone Exchange Company) features the letters "TEC" in a bold, white, sans-serif font. To the right of the letters is a stylized white crescent moon shape. The logo is set against a dark, circular background that is part of a larger graphic at the top of the page.

August 15, 2018

Alabama Broadband Accessibility Fund Grant Application
Post Office Box 5690
Montgomery, AL 36103-5690

Dear Sir or Madam:

Roanoke Telephone Company, Inc. (Roanoke) participates in a consolidated cash management arrangement with other subsidiaries of TEC. The consolidated cash management arrangement is administered by TEC Services, Inc. (TEC Services) and the underlying cash investments are in the name of TEC Services. Roanoke's share of the consolidated cash management account as of July 31, 2018 amounts to \$1,316,882 of the \$3,880,889 total balance shown on the attached bank statements. Roanoke can issue checks and other payments of up to the \$1,316,882 interest it has in the attached account without any further action being taken. Accordingly, Roanoke has sufficient cash reserves to match up to \$400,000 for the Five Points Community Broadband Project that has been submitted to ADECA for grant approval.

I am the Executive Vice President on both Roanoke and TEC Services and, therefore, have authority to authorize transactions on both companies. If you have any questions or need any additional information please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Joey F. Garner". The signature is written in a cursive, flowing style.

Joey F. Garner
Executive Vice President

Project name: Five Points Community Broadband Project

Legal name of entity: Roanoke Telephone Company, Inc.

Mailing address: 236 East Capitol St, Jackson, MS 39201

Name and title of CEO: James Garner, Vice President of Operations

Grant Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone: 601-354-9070 Email: LisaW@TEC.com

Other Program Priorities:

1. Does this project seek to leverage grant funds through private investment?

- a. YES – The Five Points Community Broadband Project is an extension of RTC’s existing broadband services and outside plant infrastructure to reach the unserved and underserved locations in the east central portion of Chambers county, AL that cannot feasibly be reached without grant funding or other opportunities. RTC will provide an 80% match in cash to build the project with a 20% grant award from the Alabama Broadband Accessibility Fund, as evidenced by the letter attached detailing and confirming the amount available to RTC in Attachment B-3 and a copy of the bank statement is available upon request.

2. Will this project be an extension of existing infrastructure?

- a. YES - TEC has been meeting the communication needs of the rural south since 1923. Roanoke Telephone Company, Inc. (RTC) is a wholly-owned subsidiary of TEC and has provided voice service since 1951 and internet service since 1995. Currently, RTC serves voice to 2,748 customers in its certificated area and internet service to 1,313 customers in Randolph county, AL and has made broadband available to over 90% of the 160 square miles of the incumbent ILEC service area. Currently, RTC passes approximately 10,675 locations with broadband service in Randolph county in Alabama. With RTC’s highly skilled and experienced customer care and technical staff of 11 employees locally located in Roanoke, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network. The equipment strategy for this expansion project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through a designated LCP cabinet and distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Five Points Community Broadband Project will not require upgrades

to the existing RTC network but will be an extension of that network and infrastructure utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10 Gbps or Point to Point 10 Gbps connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location. A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10 Gbps with streaming providers through Equinix utilizing CSpire for 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30 Gbps of peering bandwidth, with the ability to scale it higher as bandwidth usage grows. This network facilitates excellent response times across the network with minimal latency. Latency from TEC's network's edge to our Internet peering locations is typically well below 20ms.

3. Does this project serve locations with demonstrated community support?

- a. YES – The Five Points Community, as well as Chambers County and Randolph County have been tremendously supportive and showed great interest in this proposed grant project. Below is a summary matrix of the community leaders, schools, chamber of commerce, safety entities and health care organizations who graciously sent letters of support (Attachment C-1 contains copies of the letters).

Community Support

Community Facility Serving the Proposed Funded Service Area (PFSA)	Contact Person	Type of Commitment
Chambers County Development Authority	Valerie Gray, Director	Supports RTC efforts to bring fiber to Five Points Community and will participate in and support the digital literacy program planned for the library and school district.
Chambers County School District	Dr. Kelli M. Hodge, Superintendent	Supports RTC efforts to bring fiber to Five Points Community and will participate in and support the digital literacy program planned for the library and school district. Also requests internet access for students living in the area to have broadband access from home to use their school issued devices for homework
Chambers County Commission	Charlie Williams Chairman, District 1	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Chambers County Commission	Douglas Jones District 2	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Chambers County Commission	Joe Blanks District 3	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Chambers County Commission	Samuel Bradford District 4	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Chambers County Commission	David Eastridge District 5	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Chambers County Commission	Debbie Wood District 6	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Randolph County Economic Development	Bryant Whaley, Director	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.

Roanoke County Healthcare Authority	William Cayples, P.A.C, Chairman	Support Five Points Community Broadband Project and opportunity for the community to utilize telemedicine
Congress of the United States, House of Representatives	Mike Rogers, House of Representatives, 3 rd District, Alabama	Supports RTC efforts to bring fiber to Five Points Community, cites benefits to public safety entities, school district, online medical portals and classes, etc.
Over 30 home owners in the PFSA	Property owners of locations inside the proposed funded service area	Signed letters of support and confirmation there is no broadband service available
Chambers County Library & Cobb Memorial Archives	Mary Hamilton, Director	Supports RTC efforts to bring fiber to Five Points Community and will participate in and support the digital literacy program planned for the library and school district.
Annie L Awbrey Public Library	Margaret Calhoun, Director	Supports RTC efforts to bring fiber to Five Points Community and will participate in and support the digital literacy program planned for the library and school district. Will partner in and support the digital literacy program planned for the neighboring community for online safety for children and workforce readiness and economic growth for the community.

4. Will this project serve the highest number of unserved homes, businesses, and community anchor points for the least cost?

- a. YES – The Five Points Community Broadband project has been modeled based on an average per mile cost of other fiber projects constructed by TEC in this area and the project will be open to bid by qualifying OSP contractors, assuring a competitive rate per mile for construction of mainline or distribution fiber. Local outside plant employees will bury the drop fiber and install the CPE to turn up the customers.
- b. **Number of Households and Businesses Passed:** The Five Points Community Broadband Project service area includes a total population of approximately 389. This area represents an estimated 153 locations and approximately 3 square miles per the RUS broadband mapping tool located at (<https://broadbandsearch.sc.egov.usda.gov/bsa>). Per RTC research all of these locations appear to be residential.
- c. **Number of Critical Community Facilities, Public Safety Entities, etc.:** Per a review of the maps and a physical inspection, there do not appear to be any

critical community facilities in this area, however as discussed in Attachment A in the section titled Health Care Needs, it is vital for rural Americans to have access to telemedicine and online health portals.

5. Does this project emphasize the highest broadband speeds?

- a. YES – RTC will be able to serve Gigabit service to these customers. The equipment strategy for this expansion project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through a designated LCP cabinet and distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Five Points Community Broadband Project will not require upgrades to the existing RTC network but will be an extension of that network utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10 Gbps or Point to Point 10 Gbps connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location. A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10 Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30Gbps of peering bandwidth, with the ability to scale it higher as bandwidth usage grows. This network facilitates excellent response times across the network with minimal latency. Latency from TEC's network's edge to our Internet peering locations is typically well below 20ms.

6. Will this project provide material broadband enhancements to hospitals located in rural areas as defined in Section 22-21-20, Code of Alabama 1975?

- a. YES – The Department of Veterans Affairs now has a telehealth service available from veterans at home if a broadband connection is available. There are many telehealth resources that are used to deliver care to a patient. However, VA's Video on Demand has been an important resource for providers and patients.

Veterans don't need to be at a clinic to speak with their provider thanks to VA Video on Demand. Providers refer appropriate patients to participate in this program. This telehealth tool is a secure, web-enabled video service, connecting Veterans with their providers. www.va.gov VA » [Veterans Health Administration](#) »

Telehealth Revolutionizing Veterans Health Care

- b. Many patients who live in rural areas will not have to travel as far to see their doctors thanks to the University of Alabama at Birmingham which is expanding its telehealth network. Access to health care is limited in many of the state's rural counties. Death rates from cardiovascular and oncologic illnesses, and diabetes are significantly higher for rural Alabamians than for those living in urban areas. The majority of Alabama's medical specialists are located in the state's larger cities; but a large percentage of the state's population lives outside those areas, making it difficult for them to receive care. While currently patients can go to the Alabama Department of Public Health county health departments to utilize this technology for their appointments. The time is near when these appointments will be done from the residence through an online portal.
- 7. Will this project support local libraries in this state for the purpose of assisting the libraries in offering digital literacy training pursuant to state library and archive guidelines?**
- a. YES – Roanoke Telephone Company, Inc., dba: TEC has created and launched a Digital Literacy Training plan and created an online learning portal, see Attachment C-2. RTC has reached out to the local community and the county of Chambers School District, as well as the Chamber of Commerce and local libraries to discuss partnering on our digital literacy project, as evidenced in the community support letters.



Chambers County
SCHOOL DISTRICT
STRENGTH WOVEN IN

P.O. Box 408
LaFayette, AL. 36862
(334) 864-9343
www.chambersk12.org

Dr. Kelli M. Hodge
Superintendent

Board Members
William A. Martin, III, President
Mary Terry, Vice President
Jeffery Finch
Judy LaFollette
Vicki Leak
Chris Busby

July 31, 2018

To Whom It May Concern:

I am writing on behalf of the Chambers County School District to express my support of Roanoke Telephone Company, Inc., dba: TEC on its grant application to extend their fiber facilities to the Five Points Community. This is something that is a great need for the students in Chambers County. Our students in grades 9-12 have their laptops with them 24-7 throughout the year. The problem we encounter is the lack of access to the internet when they are at home. We are very excited about TEC being able to extend their fiber coverage, this will be a game changer for some of our students.

In addition, TEC has extended an offer to partner in a digital literacy program, which includes live internet safety training at the schools and local library.

I ask that you please approve the grant application that is submitted on behalf of TEC. This fiber extension is needed in our community, and most of all, it is needed by the students in our school system.

Thanks in advance for your help.

Sincerely,

Kelli M. Hodge

Dr. Kelli M. Hodge
Superintendent

Chambers County Commission



Charlie Williams, District 1
Chairman
David Eastridge, District 5
Vice Chairman



Douglas Jones District 2
Joe Blanks, District 3
Samuel Bradford, District 4
Debbie Wood, District 6

Regina Chambers, County Manager

August 27, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in our local community and has been meeting with the local government, libraries, schools, chamber of commerce, senior center and other community leaders to discuss the proposed grant application for an Alabama Broadband Accessible Grant Program in our rural area of Chambers county that does not have adequate broadband available.

Not only would this benefit our public safety entities and school districts, but access for these residents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

A handwritten signature in black ink that reads "Charlie P. Williams".

Charlie Williams
Chairman, District 1

Chambers County Commission



Charlie Williams, District 1
Chairman
David Eastridge, District 5
Vice Chairman



Douglas Jones District 2
Joe Blanks, District 3
Samuel Bradford, District 4
Debbie Wood, District 6

Regina Chambers, County Manager

August 27, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in our local community and has been meeting with the local government, libraries, schools, chamber of commerce, senior center and other community leaders to discuss the proposed grant application for an Alabama Broadband Accessible Grant Program in our rural area of Chambers county that does not have adequate broadband available.

Not only would this benefit our public safety entities and school districts, but access for these residents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas Jones".

Douglas Jones
District 2

Chambers County Commission



Charlie Williams, District 1
Chairman
David Eastridge, District 5
Vice Chairman



Douglas Jones District 2
Joe Blanks, District 3
Samuel Bradford, District 4
Debbie Wood, District 6

Regina Chambers, County Manager

August 27, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

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Not only would this benefit our public safety entities and school districts, but access for these residents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

A handwritten signature in black ink that reads "Joe Blanks".

Joe Blanks
District 3

Chambers County Commission



Charlie Williams, District 1
Chairman
David Eastridge, District 5
Vice Chairman



Douglas Jones District 2
Joe Blanks, District 3
Samuel Bradford, District 4
Debbie Wood, District 6

Regina Chambers, County Manager

August 27, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

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Not only would this benefit our public safety entities and school districts, but access for these residents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

A handwritten signature in black ink that reads "Sam Bradford".

Samuel Bradford
District 4

Chambers County Commission



Charlie Williams, District 1
Chairman
David Eastridge, District 5
Vice Chairman



Douglas Jones District 2
Joe Blanks, District 3
Samuel Bradford, District 4
Debbie Wood, District 6

Regina Chambers, County Manager

August 27, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

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Not only would this benefit our public safety entities and school districts, but access for these residents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

A handwritten signature in black ink that reads "David Eastridge".

David Eastridge
District 5

Chambers County Commission



Charlie Williams, District 1
Chairman
David Eastridge, District 5
Vice Chairman



Douglas Jones District 2
Joe Blanks, District 3
Samuel Bradford, District 4
Debbie Wood, District 6

Regina Chambers, County Manager

August 27, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

To Whom It May Concern:

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Not only would this benefit our public safety entities and school districts, but access for these residents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

A handwritten signature in blue ink that reads "Debbie Wood".

Debbie Wood
District 6



August 10, 2018

To Whom It May Concern:

On behalf of the Randolph County Economic Authority, I fully support Roanoke Telephone Company, Inc. receiving the Community Connect grant to extend broadband service to our rural community. This project would be of great benefit to our community as broadband service would improve the quality of life and increase economic opportunities for our citizens and businesses. The addition of extended broadband will help not only help our rural areas, but ALL of Randolph County because as you help one area you help with all areas.

An educated and trained workforce is the number one key driver for companies looking to locate or expand their businesses. Internet access has become a vital component of both education and workforce readiness. Children are the workforce of tomorrow, education and technical skills are extremely important for preparing them for job opportunities that will be available when they enter the workforce. Young adults in our community need internet access to apply for jobs and to participate in online educational programs, so having broadband service available at home and at their community centers would greatly improve their potential for a successful future.

I wholeheartedly support efforts to bring this new service to Randolph County, and I encourage you to strongly consider Roanoke Telephone Company for this funding.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Bryant Whaley'.

Bryant Whaley

RANDOLPH COUNTY HEALTH CARE AUTHORITY

Attachment C-1 Community Support Letters

P. O. Box 1125

Roanoke, Alabama 36274

28 April 2018

To whom it may concern,

Having practiced medicine in Randolph County for almost 40 years I have witnessed the evolution of telemedicine firsthand. This has not only been utilized in the hospital and clinic settings but also in the home care environment for the transmission of important medical data. Patients can monitor vital signs and address symptoms through single user portals that can be customized to a patient's specific disease. This can allow the patient to alert providers of health conditions in real time. Unfortunately not all areas of our community have adequate internet/phone services that allows them access to the quality of medical care that all people deserve.

In rural Alabama, we are medically underserved and continue to have severe difficulty in recruiting qualified medical personnel especially specialist. Telemedicine is allowing patients to have access to specialist from the clinic, hospital and emergency setting that otherwise might not be obtainable due to either time or travel constraints. The ability for rapid interpretation of data such as xrays, ekg or even remote cardiac auscultation can significantly reduce morbidity and mortality. Other specialist, such as dermatology, utilize telemedicine to offer services at remote locations allowing patients care that they might otherwise not obtain.

The aim of telemedicine and patient monitoring is to improve patient health outcome for both acute and chronic disease including cardiac, respiratory, diabetes and dermatology. As technology evolves there are many avenues yet unexplored. Digital healthcare initiatives help organizational goals reducing hospital admissions allowing patients to be more comfortable in the home environment.



William Cayple P.A.-C

Chairman, Randolph County Health Care Authority

Vice Chairman, Tanner Medical Center East Alabama

MIKE ROGERS

3RD DISTRICT, ALABAMA

2184 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0103
PHONE: (202) 225-3261
FAX: (202) 226-8485

www.mikerogers.house.gov



Congress of the United States
House of Representatives
Washington, DC 20515-0103

Attachment C-Community Support Letters
ARMED SERVICES COMMITTEE
STRATEGIC FORCES SUBCOMMITTEE
CHAIRMAN
READINESS SUBCOMMITTEE
AGRICULTURE COMMITTEE
HOMELAND SECURITY COMMITTEE

August 24, 2018

Mr. Kenneth Boswell
Director
Alabama Department of Economic and Community Affairs
P.O. Box 5690
Montgomery, AL 36103-5690

Dear Mr. Boswell:

I enthusiastically support the Roanoke Telephone Company. Roanoke Telephone Company, Inc. is an active participant in our local community and has been meeting with the local government, libraries, schools, chamber of commerce, senior center and other community leaders to discuss the proposed grant application for an Alabama Broadband Accessible Grant Program in our rural area of Chambers County that does not have adequate broadband available.

The Alabama Broadband Accessible Grant Program will benefit the public safety entities and school districts. The Alabama Broadband Accessible Grant Program will provide access to Chambers County constituents from their homes for online medical portals, online classes, working from home or starting a new business in this area becomes a reality.

I respectfully request that you give the Roanoke Telephone Company your most thoughtful and serious consideration. The Roanoke Telephone Company will provide broadband service for Chambers County through this grant application. I would appreciate your acknowledging receipt of this letter with a response to Alvin Lewis in my Opelika District Office.

Thank you for your time and attention to this matter. I look forward to hearing from you.

Sincerely,

Mike Rogers
Member of Congress

MR: al

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

William H. NORRED

Name Printed

3085 Co Rd 288

Address

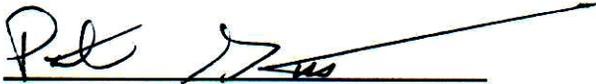
July 27, 2018

To Whom It May Concern:

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

PAT GASTON

Name Printed

2503 County Rd 288

Address

Five Point, AL

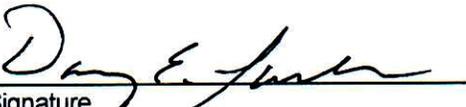
July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Danny E. Lovelace
Name Printed

3045 Co Rd. ~~2005~~ 288
Address

July 27, 2018

To Whom It May Concern:

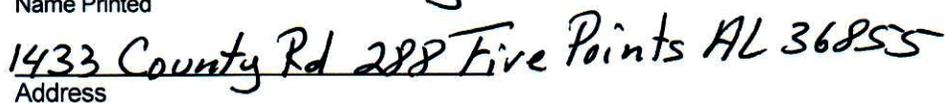
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Sincerely,


Signature


Name Printed


Address

July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Violet Kimbrel
Name Printed 1369 Co. Rd 288
Five Pts, AL
Address

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

William Farrar
Signature

Jaye Chumney

William Farrar
Name Printed

115. Co. Rd 288
Address

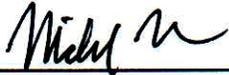
July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

Michael Nanna

Name Printed

1390 County Rd 286 Five Points AL 36855

Address

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

Mike's Cycle Shop Inc.

Name Printed

1400 County Rd 286

Address

Five Points AL 36855

July 27, 2018

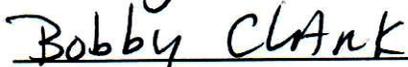
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Sincerely,


Signature


Name Printed:


Address

July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Michael Cooper

Signature

Michael Cooper

Name Printed

1212C.R 286

Address

July 27, 2018

To Whom It May Concern:

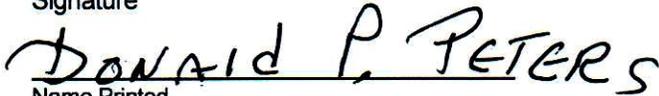
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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature



Name Printed



Address

July 27, 2018

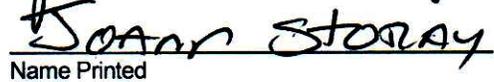
To Whom It May Concern:

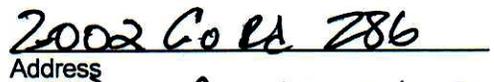
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Sincerely,


Signature


Name Printed


Address



July 27, 2018

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Sincerely,

Francis Reddish
Signature

Francis Reddish
Name Printed

Five Points Al. - 1229 County Rd 285 Lot B.
Address

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

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Sincerely,


Signature

John D. Murray
Name Printed

1514 COLL 281 Five Points AL 36855
Address

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

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Sincerely,

Diane B. NOLES

Signature

DIANE B NOLES

Name Printed

1322 CO. R.D 288 Five po: nts AL 36855

Address

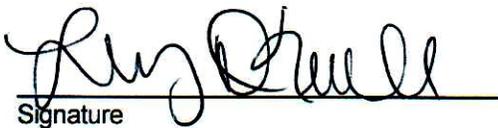
July 27, 2018

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Sincerely,


Signature

Lacey Keeble
Name Printed

1334 County Road 288
Address Five Points AL 36855

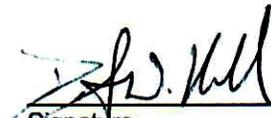
July 27, 2018

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Sincerely,



Signature

David W. Keeble

Name Printed

1334 Canty rd 288 SW

Address Five Points AL-

July 27, 2018

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Sincerely,

Sherry A Keel
Signature

Sherry A Keel
Name Printed

290 S. Stateline Rd. Five Points, AL 36855
Address

July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Mike Wilson

Signature

Mike Wilson

Name Printed

1035 County Line Rd

Address

Five Point Ald

July 27, 2018

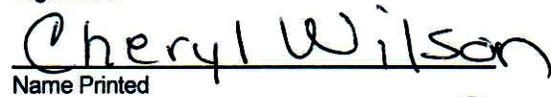
To Whom It May Concern:

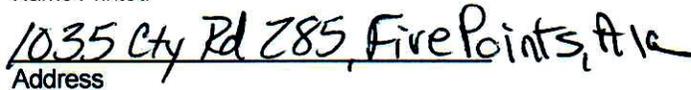
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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature


Name Printed


Address

July 27, 2018

To Whom It May Concern:

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

Chris McDaniel

Name Printed

1118 Co. Rd 285 Five points AL 36955

Address

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

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Sincerely,


Signature


Name Printed


Address

July 27, 2018

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Sincerely,



Signature

Sedry Albertsen

Name Printed

651 Lot 5 Sharman Rd.

Address

Five Points, AL 36855

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

William Lewis

Name Printed

651 STRAZMAN RD Lot 6

Address

Five Points AL 36955

July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Harvey J. Boone
Name Printed

2395 Co. Rd 288 Five Points, VA
Address 36855

July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

Arlen Welborn

Name Printed

2424 Country Rd 288

Address
Five Pt A1

July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



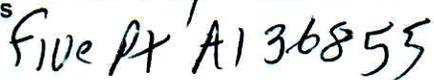
Signature



Name Printed



Address



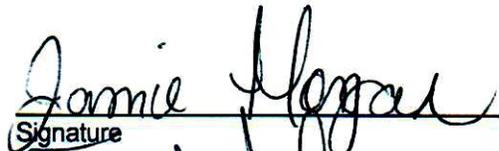
July 27, 2018

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I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Jamie Morgan
Name Printed

2000 County Road 288
Address
Fivepoints, RI 36855

July 27, 2018

To Whom It May Concern:

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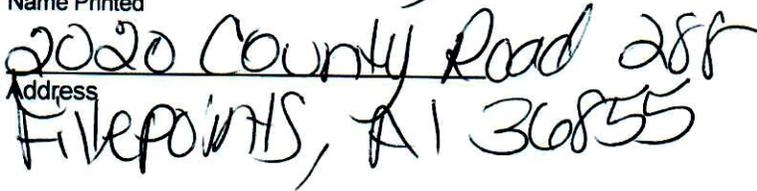
Sincerely,



Signature



Name Printed



Address

July 27, 2018

To Whom It May Concern:

Roanoke Telephone Company, Inc. is an active participant in the local community in Randolph and Chambers counties and has been meeting with the members of the local communities, like me, to discuss the proposed Five Points Community Project and the opportunity to have fiber and broadband service available to my home.

I live in the Five Points Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Howard E Carver Sr.
Name Printed

Lot #7 5 points Alb
Address



Chambers County Library
& COBB MEMORIAL ARCHIVES

STRENGTH WOVEN IN

CHAMBERS COUNTY LIBRARY

H. Grady Bradshaw Library

3419 20th Avenue
Valley, AL 36854
(334)768-2161

Cobb Memorial Archives

3419 20th Avenue
Valley, AL 36854
(334) 768-2050

LaFayette Pilot Public Library

198 1st Street SE
LaFayette, AL 36862
(334) 864-0012

September 11, 2018

Alabama Department of Economic
and Community Affairs
Post Office Box 5690
Montgomery, Alabama 36103-5690

To Whom It May Concern:

As a community partner, the Roanoke Telephone Company, Inc. has met with local officials in governments, schools and libraries. During these meetings, the grant application for an Alabama Broadband Accessible Grant for the rural area of Chambers County has been discussed.

The library provides online access to a number of resources for students including Homework Alabama, standardized testing resources, the Alabama Virtual Library and many other important electronic research tools. Having reliable, high-speed Internet is critical for students and adults to take advantage of these and many other resources.

We fully support this effort and are thrilled at the prospect of broadband service for our area.

Sincerely,

Mary H. Hamilton, MLIS
Director

Chambers County Library & Cobb Memorial Archives

ANNIE L. AWBREY PUBLIC LIBRARY

736 COLLEGE STREET
ROANOKE, AL 36274
(334) 863-2632

September 7, 2018

To whom it may concern:

Annie L. Awbrey Public Library has joined with Roanoke Telephone Company as a partner, and is making a fundamental commitment by currently offering a Digital Literacy Program. Through the continuous improvement of connecting our rural community, we have been able to offer beginner, intermediate, and tablet classes. This library has been offering online GED training, which would not be possible without TEC's broadband services.

We believe that an organizational partnership will help us enhance our community's digital literacy for future generations. In partnership with Roanoke Telephone Company (TEC), we will provide the following courses:

- Internet Safety for Kids (K-2, Grades 3-5)
- Tweens and Teens
- Training presentation for Parents, Grandparents and the Community
- Internet 101
- Job Hunting with the Internet

In addition to these presentations, other topics are under development including the following: Social Networking 101, Digital Photography, and Microsoft Word. We understand that our commitment to measure, track, and improve the digital literacy of our rural community is supported by the resources and tools offered through Roanoke Telephone Company, including broadband connectivity and fiber optic expansion.

We would also like to show our support for the Five Points project, which we understand will help provide local training and education in the Five Points area.

Sincerely,



Margaret Calhoun, Director
Annie L. Awbrey Public Library



Attachment C-2 TEC Roadmap to Improve Digital Literacy

In an effort to provide resources to our communities to bridge the gap in the digital divide, TEC is launching a digital literacy plan. The plan will cover a series of steps that will help promote digital literacy in all age groups and will implement an assortment of training classes and workshops to close the gap. TEC realizes that the future brings more and more technological changes and to thrive in such times, one must be digitally literate. There is technology in every aspect of the professional world now whether it is applying for jobs or everyday job tasks. There will be a focus on internet literacy training to help prepare users entering the workforce and anyone wanting to improve their individual efficiency. Another very important topic in digital literacy is internet privacy. It is important to make our communities aware of the dangers of using the internet without a proper knowledge of what we are sharing. TEC's goal is to educate people of all ages on the endless possibilities of the internet.

Collaboration will play a key role in the success of the implementation of TEC's digital literacy plan. To execute, TEC must partner with community organizations. A list of suggested partners and contacts in each community is below:

- Superintendent from each school district
- Director of the local libraries
- Director of the local chamber of commerce
- Director of community centers, learning centers and senior centers
- Low income housing facilities

Part one of the plan is TEC's implementation of an internet safety program. Courses will be presented for different age groups in the schools of our communities. The courses will be taught by a member of the community sponsored by TEC and will cover internet safety for kids and adults. Students can gain a knowledge of the dangers of the internet and what can be done to stay safe and remain vigilant. The course for parents and other adult family members will also be available at the local library, community centers, learning centers and senior centers. Two identical CDs with these powerpoint presentations have been sent to each company, one for the company and one to share with the local person recruited to partner and teach the courses in the classrooms. A list of these courses is below:

- NetSmartz Kindergarten – 2nd grade
- NetSmartz 3rd grade – 5th grade
- NetSmartz Tweens
- NetSmartz Teens
- NetSmartz Parents

Part two of the plan is to place brochures in the local TEC office and in the local library on internet safety. These brochures are provided by the Federal Trade Commission and are listed below:

- Heads Up: Stop Think Connect
- Net Cetera: Chatting with Kids About Being Online
- Living Life Online

Part three of the plan is to provide a portal for classes to be offered to each community. Shortcut icons to access this website, <http://www.driveyourlearning.org/co/tec.html> will be added to all public accessible computers in the libraries, community centers, learning centers for the disabled and senior centers in our serving areas. Course categories consist of the titles below and more will be added:

- Internet and Computer Basics
 - Introduction to E-Mail
 - Introduction to the Internet
 - Evaluating Web Pages
 - Internet Safety
 - Microsoft Word 2010: Unit 1
 - Microsoft Word 2010: Unit 2
 - Computer Basics
 - Mouse Tutorial
 - Windows 8
 - Creating an Email account: Gmail
 - Starting on the Computer
 - DigitalLearn-Intro to Email
 - Using the Internet
 - Windows10
- Job Skills
 - Cover Letters
 - Networking Basics
 - Interviewing 101
 - Job Applications
 - Business Planning 101
 - Guide to Starting a Business
 - Small Business Cybersecurity
 - Resume Writing
- Social Media
 - Getting Started with Pinterest
 - Instagram Basics
 - Facebook 101
 - Etsy 101
 - LinkedIn Basics
- LinkedIn for Job Seekers
- Life Skills
 - Money Basics
 - Guide to Buying a Car
 - Guide to Buying a Home
 - Essentials of Nutrition
 - Guide to Starting a Business
 - Taxes 101
 - Business Planning 101
 - U.S. Citizenship Exam Prep
 - Credit 101
- General Education
 - SAT Math Preparations
 - The GED Test Tutorial
 - Selling on EBay
 - GMAT – Test Prep
 - Documentation (DAP skills)
- Basic Programming
 - Programming Fundamentals
 - Get Your Business Online
 - Introduction to HTML
 - Introduction to Ruby
 - JavaScript
 - jQuery
 - Introduction to CSS
 - PHP Basics
 - GESMV – Job Success