

## **Request for Proposals**

### **Seeking High Speed Internet/Broadband Services**

**LTBS-RFP-040119 rev1.3**

**Proposal Submission Deadline: June 17, 2019**

**Proposal Submittal and Supporting Attachments to be made online:**

**[www.littletbroadband.org/rfp\\_submittal](http://www.littletbroadband.org/rfp_submittal)**

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**REVISION HISTORY**

| Revision | Date       | Description  |
|----------|------------|--|
| 1.0      | 03/22/2019 | Initial release for review   |
| 1.1      | 04/01/2019 | Reduced performance requirement of fiber backhaul to 10Gbps/40Gbps. Pushed back submission deadline to the beginning of June, and relaxed overall Vendor Selection Schedule. Updated document link to latest revision.         |
| 1.2      | 04/26/19   | Changed primary contact. Added references to NCIT. Updated proposed Scaly Mountain PoP to Highlands. Expanded definition of LTBS selection committee and process. Added Pop definition to glossary. Updated RFP download link. |
| 1.3      | 05/06/19   | Added acknowledgements. Updates to section 1.1. Revised dates in section 1.4. Updated all internal document links. Release to publication for vendor response submittals.  |

**ACKNOWLEDGEMENTS**

Little T Broadband would like to thank Tommy Jenkins of the Macon County Economic Development Commission, the Macon County Broadband Committee, Keith Conover of the North Carolina IT Broadband Division, and the Fontana Library Broadband Initiative, for their help, support, and guidance through this process.

## 1. INTRODUCTION

Little T Broadband Services, Inc., is requesting proposals from all interested providers of High-Speed Internet/Broadband (hereafter “Internet”) services to deploy and operate an affordable, reliable, high-speed Internet solution for the residents, businesses, and government constituents of the Otto community in Western North Carolina.

### 1.1. BACKGROUND AND VISION

Otto - also known as Smithbridge Township - is one of nineteen rural communities forming Macon County in the mountainous region of Western North Carolina. Macon County’s population is around 36,000 and the Otto community is home to roughly 3,500 people and small businesses. The rugged terrain and low population density of the area have made it economically unattractive for the legacy telecommunication companies to provide consistent cellular service to the area, and internet service ranges from none to poor.

The residential population demographics of the Otto community are diverse, containing both younger residents with children as well as a sizable senior/retired population. For all members of the community, reliable communication and internet services are critical for education, medical care, emergency services, community development and general public safety.

Little T Broadband Services, Inc is a 501(c)(3) enterprise formed to facilitate the development of broadband internet (defined as a minimum of 25Mbps download and 3Mbps upload) access for the residents of the Otto Community. It is the mission of this enterprise to serve the Otto community by facilitating the development, deployment, and operation of a scalable (expandable and extensible) broadband network. Little T Broadband Services is working to create an open solution and has sought guidance from Keith Conover with the North Carolina Broadband Infrastructure Office, a Division of the State IT department. The network ultimately installed in Otto is intended to help serve as a “lighthouse” model for other communities and counties in Western North Carolina.

Little T Broadband Services, Inc will accomplish these goals through the formation of partnerships, development and management of grants, and securing subsidized capital loans for the infrastructure. We recognize that subscriber fees will need to be subsidized via grants, loans and other means and methods on an ongoing basis until such time as the population grows sufficiently enough and/or the cost of technology and operations is more affordable.

### 1.2. TERMINOLOGY

Little T Broadband Services, Inc. hereinafter. will be referred to as “LTBS”, and the Otto, NC community will hereinafter be referred to as “Otto”.

The term “offeror” shall refer to providers submitting proposals in response to this Request for Proposals (RFP).

The term “Contractor” or “Provider” is also used to describe the successful offeror(s) in the context of providing services under a contract resulting from this RFP.

The term, “Expandable” means the ability to increase the physical footprint of the network as needed or as opportunity becomes available.

The term, “Extensible” is the ability to add-on new or advanced technology as it becomes available or affordable.

The term, “Service Points” indicates the location of an end-user whether residence, business or other entity.

The term “Subscriber” refers to the end user customer that is receiving service. The subscriber base will include both residential and business customers.

The term “DS” refers to downstream data flow from the network to the subscriber. The term “US” refers to the upstream data flow from the subscriber to the network.

The term “Initial Service” shall refer to delivery of Internet services to the first subscriber.

The term “PoP” shall refer to Point of Presence. This is a connection point between the LTBS network and neighboring network through which internet traffic may be passed.

**1.3. PROPOSAL SUBMITTALS**

An electronic copy of this document may be downloaded from the following URL:

[www.littletbroadband.org/public\\_docs/LTBS-RFP-040119.pdf](http://www.littletbroadband.org/public_docs/LTBS-RFP-040119.pdf)

Each proposal received in response to this RFP will be evaluated on the criteria described herein. All proposal documents must be clearly marked “PROPOSAL – High-Speed Internet Service”, and must include all elements described in the PROPOSAL CONTENT AND FORMAT REQUIREMENTS section of this RFP.

Questions regarding the RFP structure or content, or any aspects of the environment within which any proposed solution would operate must be submitted via email to the following address:

[rfp\\_inquiries@littletbroadband.org](mailto:rfp_inquiries@littletbroadband.org)

Verbal discussions may be initiated once the questions or comments are received in writing. Any answers or other information that is provided in our response to questions and/or comments may be shared with with other bidders. A Non-Disclosure Agreement (NDA) will be accepted only where there is indicated application of distinctly proprietary information. The nature of that information - but not the content - would have to be described in advance of any request for an NDA. All NDAs must be of mutual interest and protection.

The proposal submittal and any supporting attachments must be made online using the following URL:

[www.littletbroadband.org/index.php/rfps/rfp-submittal](http://www.littletbroadband.org/index.php/rfps/rfp-submittal)

LTBS will not be responsible for proposals delivered to a person, location, or URL other than that specified herein. It is the responsibility of the offeror to promptly report any difficulty in the online submission process to LTBS.

Access to LTBS data for the identification of demand and assets is available by request.

Any amendment or addendum to this RFP is valid only if issued in writing by LTBS.

**1.4. VENDOR SELECTION SCHEDULE**

|                                       |            |
|---------------------------------------|------------|
| Begin RFP Peer Review                 | 03/25/2019 |
| Publish RFP                           | 05/06/2019 |
| Intent to Bid Response Deadline       | 05/20/2019 |
| Proposal Submission Deadline          | 06/17/2019 |
| Vendor Selection                      | 07/29/2019 |
| Contract Approval (tentative)         | 08/26/2019 |
| Initial Services to Begin (tentative) | 04/06/2020 |

## 2. DESIGN AND SERVICE CONSIDERATIONS

1. Little T Broadband Services, Inc (LTBS) seeks an Internet solution that will serve residents, business and government entities in Otto (see Figure 1). LTBS wishes to obtain access to “Advanced Telecommunication Capability” as requested by Congress for all Americans, and recently redefined by the FCC in the following report: [FCC 15-10: 2015 BROADBAND PROGRESS REPORT AND NOTICE OF INQUIRY ON IMMEDIATE ACTION TO ACCELERATE DEPLOYMENT, Released February 4, 2015](#). In this report, the FCC states: ‘With these factors in mind, we find that, having “advanced telecommunications capability” requires access to actual download speeds of at least 25 Mbps and actual upload speeds of at least 3 Mbps (25 Mbps/3 Mbps).’ This Internet service will be provided to improve the safety and well being of the Otto residents, to help provide improved emergency response by aiding county public service/safety personnel, and to help encourage general economic development.
2. LTBS is seeking an enterprise to install a broadband network infrastructure to connect and serve the currently underserved rural areas of Otto, with potential for future expansion into other underserved areas of Macon County, NC. This RFP is, first, to provide service to the Tessentee Service Area of Otto, (Figure 1) which will be the ‘pilot’ for how the balance of the Otto Community will be built-out.
3. Initial research by LTBS indicates that the Tessentee area residents and businesses may be best served by using a hybrid Fiber-to- the-Neighborhood (FTTN) architecture, with Fixed Wireless delivery for the last mile for most service points. Though LTBS is open to other architectural approaches and proposals, the hybrid fiber to fixed wireless architecture promises to be the most cost effective.
4. Service for Macon County public safety will be required through the support of secure WiFi access at strategic locations within the service areas. Discussions regarding more detailed requirements are ongoing with Macon County..
5. Existing aerial fiber trunks running along distribution poles owned by Haywood Electric Member Cooperative (HEMC) will be used via a partnership currently in formation with HEMC and LTBS (Figure 2). Expansion into the other Otto service areas and beyond will prompt a different set of fiber trunk requirements as these areas are not serviced by HEMC.
6. Point of Presence (PoP) connections to two or more neighboring fiber networks will be required for reliability. Proximity opportunities exist for connection with Balsam West, North Georgia Networks, and/or Highlands (Figure 2).
7. LTBS will provide a GIS database containing service area delineation, existing (HEMC) fiber infrastructure, and proposed fiber extensions and PoP locations onrequest and execution of an NDA.
8. Based on the HEMC meter count in the Tessentee Service Area and a conservative take-rate, the anticipated number of installations is within a range of 450 to 650, mixed residence and business..
9. Proposed solutions are expected to meet a mean uptime of ninety-five percent (95%) or better, acts of God notwithstanding. Appropriate Service Level Agreements (SLAs) will be required to this effect..
10. Proposed solutions are expected to provide high-speed, low-latency service capable of carrying general Internet traffic, multimedia, real-time streaming, VoIP, and video conferencing.
11. The selected entity is expected to provide technical service support representation local to Macon County on a full-time basis.
12. The Provider will be required to market their offerings to customers through an LTBS-specific marketing plan.
13. Back office services - e.g.; billing, new subscriber onboarding, and help desk - are solicited as part of any infrastructure build-out proposal or as a separate response to this RFP.



- 14. Public and private sector grants will be utilized for initial capital investment funding and ongoing subsidization of services. Investment by offerors is encouraged and will be considered as part of the selection criteria. Support in developing grant applications and/or capital loan (government or privately subsidized) will be considered as part of the selection criteria.

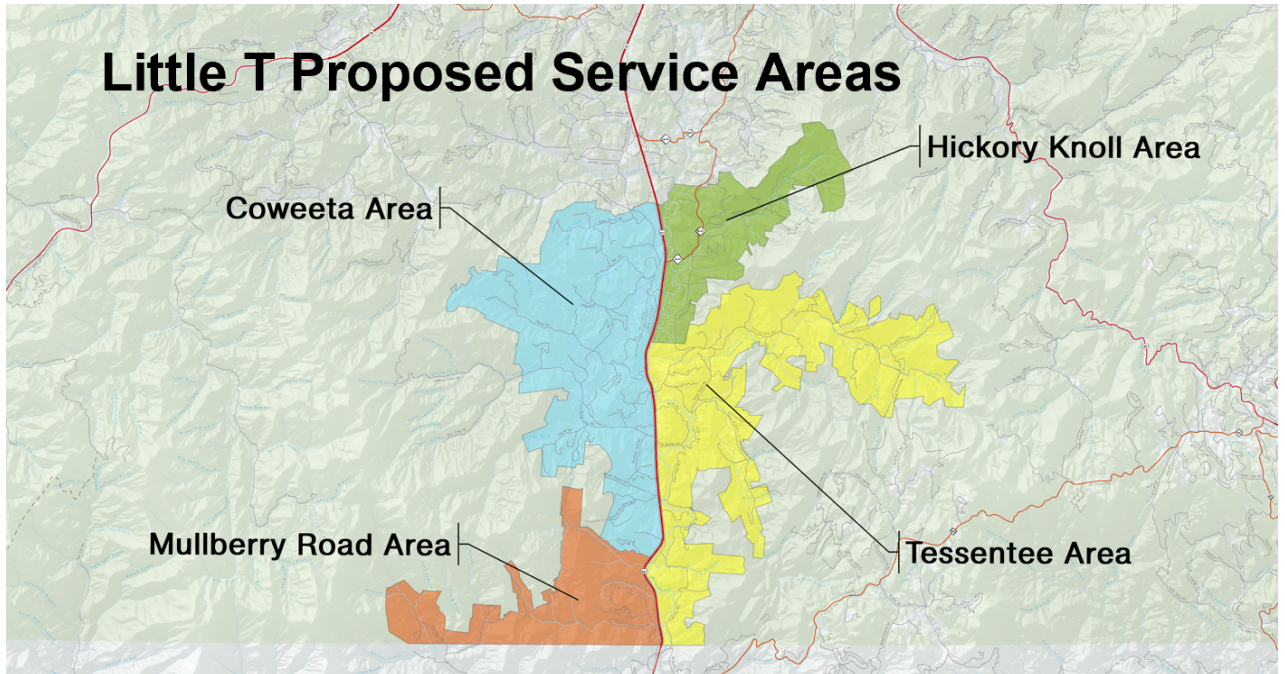


Figure 1: Otto, NC, Community with Proposed Service Areas

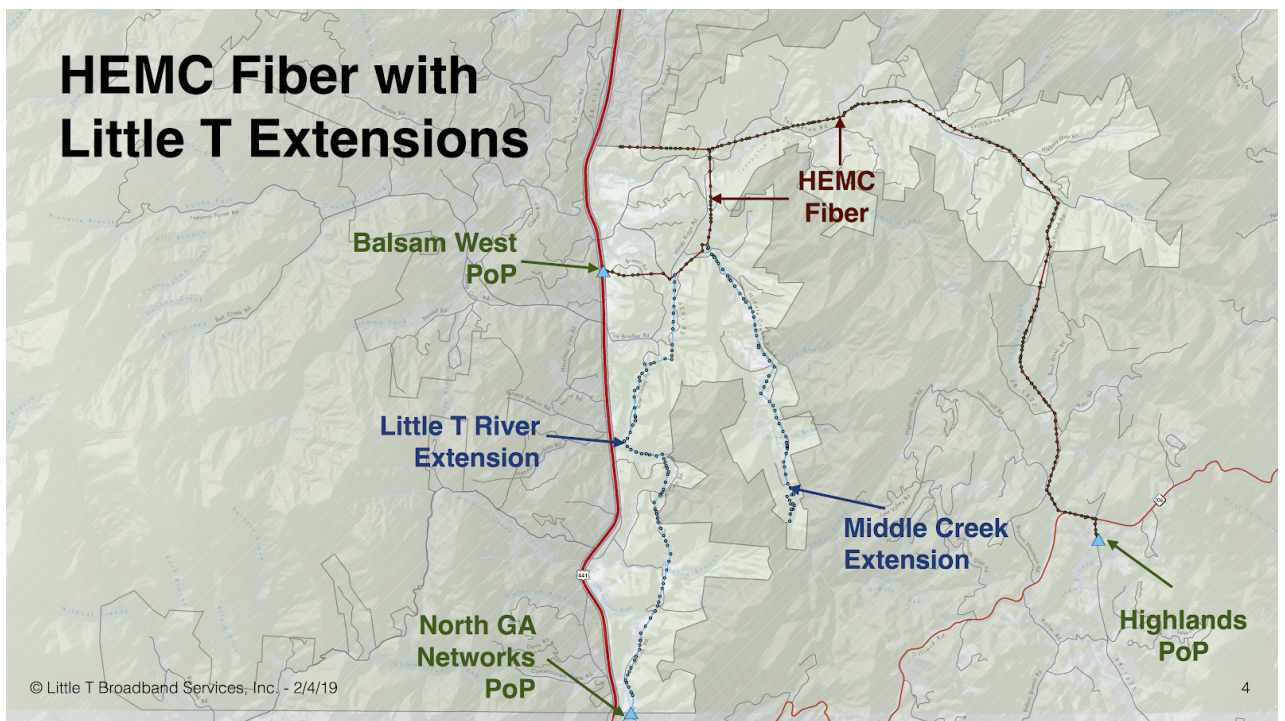


Figure 2: Tessentee Service Area (Pilot) with Existing and Proposed Fiber Lines and Potential PoPs

### 3. REQUIREMENTS

The following subsections outline the requirements for the network and services to be offered. The following terminology will be used to qualify requirements:

- **MAY** .... The specified requirement is optional.
- **SHOULD** .... The specified requirement is optional but highly recommended.
- **MUST** .... The specified requirement is not optional and must be met.

#### 1. Scope of Services

- a. Provide turnkey Internet access.
- b. Provide local technology and sales support.
- c. Provide pricing for business internet access along with time-to-market for implementation to business areas.
- d. Operate and maintain fiber infrastructure as required.
- e. Operate and maintain fixed wireless infrastructure as required.
- f. Provide ongoing network bandwidth usage data to LTBS
- g. Provide limited network monitoring capability for LTBS

#### 2. Detailed Description of Services Required

- a. Residential network
  - i. High-speed internet access for residential subscribers
  - ii. Initial residential offers **SHOULD** be made available within three (3) months of equipment becoming active.
  - iii. Wireless subscriber equipment installation **MUST** be approved by LTBS. Installation **MUST** minimize required roof area.
- b. Business network
  - i. Business-class internet access for business subscribers.
  - ii. Initial business offers **SHOULD** be made available within three (3) months of equipment becoming active.
  - iii. Wireless subscriber equipment installation **SHOULD** be on the roof and set back from the roof edge so that any dish or antenna is not visible from the streets. Installation **MUST** minimize required roof area, and **MUST** be approved by LTBS.
- c. Government Network (Macon County Public Safety)
  - i. Secure WiFi access points **SHOULD** be provided at strategic locations within service area
  - ii. Locations to be determined by Macon County Public Safety
- d. Network Operations / Service Level Agreements
  - i. Network Operations Center (NOC) **SHOULD** be located in or near Otto, NC.
  - ii. Wireless backhaul **MAY** be used as needed to HEMC poles or proposed towers
  - iii. Response to reported subscriber problems **SHOULD** be less than one (1) hour and field service response **SHOULD** be less than four (4) hours.



3. Network Performance Requirements
  - a. Delivered Network Speed
    - i. Residential - **MUST** be a minimum advertised data rate of 25Mbps DS x 3Mbps US
    - ii. Business - **MUST** be a minimum advertised data rate of 50Mbps, and **SHOULD** be a minimum of 100Mbps
    - iii. Government - **MUST** be a minimum advertised data rate of 25Mbps DS x 3Mbps US within a ¼ mile of WiFi access points
    - iv. Multiple speed tiers with different price points **MAY** be offered for both residential and business services.
    - v. The minimum subscriber data rate **MUST** be no less than 80% of the advertised rate, due to network congestion or other causes.
  - b. Delivered Network Symmetry
    - i. Residential - no symmetry requirements
    - ii. Business - DS and US rates **SHOULD** be symmetrical
  - c. Delivered Network Link Latency
    - i. Residential - **MUST** be 65ms or less, **SHOULD** be 50ms or less
    - ii. Business - **MUST** be 50ms or less
  - d. Reliability
    - i. Residential - Up time **SHOULD** be 95%
    - ii. Business - Up time **SHOULD** be 95%
    - iii. Government - Up time **SHOULD** be 95%
  - e. Redundancy - Network **MUST** have a minimum of two PoP connections.
  - f. Infrastructure Performance
    - i. Subscriber - Equipment used **MUST** be capable of 200Mbps or greater to allow for performance upgrades and/or higher speed tier offerings.
    - ii. Fixed wireless access points - Equipment **MUST** be capable of 400Mbps or greater to allow for performance upgrades and/or higher speed tier offerings.
    - iii. WiFi access points - Equipment **MUST** be capable of 200Mbps or greater
    - iv. Fiber or wireless backhaul - **MUST** be capable of 10Gbps or greater, and **SHOULD** be 40Gbps or greater

#### 4. GENERAL CONTRACTUAL CONDITIONS AND RESPONSIBILITIES

1. **Prime Responsibility:** The selected provider will be required to assume full responsibility for all services and activities offered in its proposal(s), whether or not provided directly. Further, LTBS will consider the selected Contractor(s) to be the sole point of contact regarding contractual matters, including payment of any and all charges resulting from the contract.
2. **Assurance:** Any contract awarded under this RFP must be carried out in full compliance with all laws of the State of North Carolina. LTBS prohibits discrimination in employment or in the provision of services because of race, color, religion, religious creed, sex, age, marital status, ancestry, national origin, political affiliation, physical disability or medical condition. This clause does not require the hiring of unqualified persons.
3. **Proposal Consideration:** In determining and evaluating the proposals, costs will not necessarily be the sole factor. Additional factors will be considered including the experience of those who will be providing services under the contract, the quality, equality, efficiency, utility, suitability of the services offered, the reputation of applicants, among other relevant factors.
4. **LTBS Rights:** LTBS reserves the right to
  - a. Reject any and all proposals
  - b. Negotiate specific terms, conditions, compensation, and provisions on any contracts that may arise from this solicitation
  - c. Waive any informalities or irregularities in the proposals
  - d. Accept the proposal(s) that appear(s) to be in the best interest of LTBS and the community.
  - e. Request clarification of any submitted information
  - f. Not enter into any agreement
  - g. Not select any applicant
  - h. Amend or cancel this process at any time
  - i. Interview applicants prior to award and request additional information during the interview
  - j. Negotiate a multi-year contract or a contract with an option to extend the duration
  - k. Issue similar RFPs in the future
5. **Insurance:** Prior to commencement of services, the Contractor must provide evidence of the following insurance coverages in amounts satisfactory to LTBS: Worker's Compensation, Commercial General Liability (naming LTBS as additional insured), Comprehensive Business or Commercial Automobile Liability for Owned Automobiles and Non-owned /Hired Automobiles. The Contractor will be required to maintain the required coverages, at its sole cost and expense, throughout the entire term and any subsequent renewal terms of the contract. The amounts of coverage may be dictated by grants and loans received by LTBS.

## 5. PROPOSAL CONTENT AND FORMAT REQUIREMENTS

The proposal submittal and any supporting attachments MUST be made online using the following URL:

[www.littlebroadband.org/index.php/rfps/rfp-submittal](http://www.littlebroadband.org/index.php/rfps/rfp-submittal)

LTBS will not be responsible for proposals delivered to a person, location, or URL other than that specified herein. It is the responsibility of the offeror to promptly report any difficulty in the online submission process to LTBS.

Proposals shall be delivered no later than the date and time listed in the CONTRACT AWARD SCHEDULE and shall contain at a minimum the following items:

### 5.1. Cover Sheet ([APPENDIX A. COVER SHEET](#))

1. Provide the full legal name of the Provider who will execute the contract. Provide specific information concerning the agency, including: the agency's legal name, type of entity, and Federal Tax ID #.
2. The cover sheet must be signed by an owner, corporate officer, or agent authorized by the Provider.

### 5.2. Network Architecture, Design, and Implementation – 40 points

1. Complete section [APPENDIX B. SPECIFICATIONS](#)
  - a. Record 'N/A' in the data section of the form for any portion of the scope of service that you are NOT including in your proposal.
2. Provide a detailed description of the network solution that you are providing.
  - a. Provide equipment specifications in adequate detail to document the performance claims reported in [APPENDIX B. SPECIFICATIONS](#).
  - b. Provide the electrical requirements for the proposed system.
  - c. Provide installation sketches or drawings showing what the vertical asset installations will look like and what connections you are proposing.
  - d. Describe any benefits that your proposed system may provide that exceed specifications or enhance performance in ways that are not otherwise documented in your proposal.
3. Provide details on residential access
  - a. Provide maps detailing when each underserved or unserved area will have access to Internet.
4. Provide details on business access
  - a. Including maps detailing when business areas (generally the US Hwy 441 corridor) will have access to Internet.
5. Complete section [APPENDIX D. PRICING](#)
  - a. Record 'N/A' in the data section of the form for any portion of the scope of service that you are NOT including in your proposal.

### 5.3. Organization Information – 20 points

1. Background and Experience. Provide at least three references that substantiate your organization's experience in providing wireless solutions.
2. Provide a description of all available equipment and installation warranties provided in your proposed system(s). Provide names and qualifications of key employees assigned to this work.

### 5.4. Proposed Costs – 40 points

In addition to the subscriber pricing provided in [APPENDIX D. PRICING](#), provide any additional costs required by LTBS to construct the infrastructure and a timeline for implementation. Also provide the amount of any capital investment to be offered.

## 6. SELECTION PROCEDURES

LTBS will form a selection committee which includes one or more operating members of the LTBS organization and five members of the Otto community. This committee will be responsible for evaluating proposals and ultimately selecting primary contractor or service provider.

Proposals will be evaluated on the criteria outlined in the PROPOSAL CONTENT AND FORMAT REQUIREMENTS section, with a maximum possible score of 100 points.

After an initial review and evaluation of each of the proposals, the offerors submitting the most highly rated proposals may be invited for interviews prior to final selection, to further elaborate on their proposals. LTBS reserves the right to award a contract without holding interviews, in the event the written proposals provide a clear preference on the basis of the criteria described.

The Contractor(s) selected for this project will be required to accept LTBS Business Relationship Agreement (BRA) and to comply with insurance standards as deemed acceptable to the LTBS Risk Manager. No agreement with LTBS is in effect until both parties have signed the BRA.

## 7. INQUIRIES

Please direct all inquiries regarding the RFP, the proposal process, and proposal submissions via email to the following address:

[rfp\\_inquiries@littletbroadband.org](mailto:rfp_inquiries@littletbroadband.org)

**8. SUBMITTAL FORMS**

The following appendices are to be used as the structure for all proposal submittals. Vendors are free to include collateral documentation as needed along with the submittal elements below.

**8.1. APPENDIX A. COVER SHEET**

|   |  |
|---|--|
| <b>Name of Person, Business or Organization:</b>  |  |
| <b>Type of Entity:</b> (e.g. Sole-Proprietorship, Partnership, Corp., Non-Profit, Pubic Agency) |  |
| <b>Federal Tax ID Number:</b>   |  |
| <b>Contact Person – Name</b>  |  |
| <b>Contact Person – Address</b>   |  |
| <b>Contact Person – Phone Number (s)</b>  |  |
| <b>Contact Person – email address</b>   |  |

By signing this Cover Sheet I hereby attest: that I have read and understood all the terms listed in the RFP; have read and understood all terms listed in this proposal; that I am authorized to bind the listed entity into this agreement; and that should this proposal be accepted, I am authorized and able to secure the resources required to deliver against all terms listed within the RFP as published by LTBS, North Carolina, including any amendments or addenda thereto except as explicitly noted or revised in my submitted proposal.

I understand that the services described herein are subject to Prevailing Wage requirements.

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Printed Name of Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Title of Authorized Representative

**8.2. APPENDIX B. SPECIFICATIONS**

| FEATURE  | SPECIFICATION or (N/A) |
|--|------------------------|
| <b>Primary Network/Trunk</b>   |                        |
| Network Architecture   |                        |
| Rated Reliability  |                        |
| Maximum/Minimum Data Rate<br>(Max possible, min guaranteed)                        |                        |
| Maximum/Minimum Bandwidth<br>(Max possible, min guaranteed)                        |                        |
| Point of Presence Locations and Expected Bandwidth                                 |                        |
| Network Operations Capability and Location   |                        |
| Anticipated Electrical Power Requirements  |                        |
|  |                        |
| <b>Subscriber Connections</b>  |                        |
| Last Mile Network Architecture   |                        |
| Rated Reliability  |                        |
| Maximum/Minimum Data Rate<br>(Max possible, min guaranteed)                        |                        |
| Guaranteed Maximum Link-Induced Latency  |                        |
| Subscriber Connection Distance Limitations   |                        |
| Roof Space Required<br>(per site for fixed wireless transceiver)                   |                        |
| Wall Space Required<br>(per site for fixed wireless transceiver)                   |                        |
| Anticipated Electrical Requirements for Exterior Equipment                         |                        |
| Requirements for New Vertical Structures<br>(Not part of HEMC pole infrastructure) |                        |
|  |                        |
| <b>Public Safety WiFi</b>  |                        |
| WiFi Network Architecture  |                        |
| Maximum/Minimum Data Rate<br>(Max possible, min guaranteed)                        |                        |
| Guaranteed Maximum Link-Induced Latency  |                        |
| Connection Distance Limitations  |                        |
|  |                        |

**8.3. APPENDIX C. SERVICE MAP**

| <b>SERVICE MAP</b>  |   |
|---|---|
| Provide a map identifying location and type of proposed vertical assets, with designation of areas that will be likely to be connected from each. |   |
| <b>Vertical Asset Location</b>  | GPS coordinates   |
| <b>Vertical Asset Type</b>  | Existing Pole/Tower and owner<br>New Pole/Tower and Right of Way requirements |
| <b>Coverage Areas for Vertical Asset</b>  | High Likelihood<br>Likely<br>Less Likely                                      |

**8.4. APPENDIX D. PRICING**

The Otto Service Area lies within Macon County, Western North Carolina / Southern Appalachia. This is highlighted to underscore the requirement for affordable pricing at the subscriber level which may not meet the provider’s requirement for profitability. The working definition for “affordable” is the price for internet access commensurate with that paid by subscribers in the higher population areas of Asheville Metro and Atlanta Metro. As such, the difference between what true costs (i.e.; the rate per subscriber per service band required by the provider to be profitable) are and what user pricing (as benchmarked by Asheville Metro and Atlanta Metro) are will be subsidized by continuing grants. As the demographics change and the population grows and the cost of technology comes down, this need will subside sometime in the future.

| <b>PRICING LISTS</b>  |                                    |
|---|------------------------------------|
| Provide a complete list of products to be offered and associated pricing for each:                  | Residential Business<br>Government |
| <b>Residential Subscriber – Standard Price(s)</b>   | \$                                 |
| <b>Residential Subscriber – Promotional Price(s)</b><br>(Include length of promotional period.)     | \$                                 |
| <b>Business Subscriber – Standard Price(s)</b>  | \$                                 |
| <b>Business Subscriber – Promotional Price(s)</b><br>(Include length of promotional period.)        | \$                                 |
| <b>Government (Public Safety WiFi) – Price(s)</b>   | \$                                 |
| <b>Projected gap between offered pricing and actual operating costs that must be filled by LTBS</b> | \$                                 |