



**Amendment Request for Qualifications for Broadband Planning Consulting and Legal Services**

**RFQ No. 2021-MBI-03**

**Massachusetts Technology Collaborative  
75 North Drive  
Westborough, MA 01581-3340  
<http://www.masstech.org>**

|  |                                |
|--|--------------------------------|
| <b>Procurement Team Leader:</b>                    | <b>Cornell Robinson</b>        |
| <b>RFQ Issued:</b>                                 | <b>May 3, 2021</b>             |
| <b>Questions Due <b>UPDATED</b>:</b>               | <b>May 26, 2021</b>            |
| <b>Answers to Questions Posted <b>UPDATED</b>:</b> | <b>June 2, 2021</b>            |
| <b>Responses Due <b>UPDATED</b>:</b>               | <b>June 16, 2020 by 3:00PM</b> |

**This Amendment 1 updates the 1) Questions Due date, 2) Answers to Questions Posted date, and 3) Responses Due date.**

## **1. INTRODUCTION**

### **1.1 Overview**

Massachusetts Technology Collaborative (“Mass Tech Collaborative” or “MassTech”), on behalf of the Massachusetts Broadband Institute (“MBI”) is issuing this Request for Qualifications for Broadband Planning Consulting and Legal Services (RFQ No.2021-MBI-03) (the “RFQ”) to solicit responses from qualified consultants, contractors and legal firms (“Respondents”) with experience in advising owners of communications networks in one or more of the service categories listed in Section 2 of this RFQ. Respondents will be competing against each other for selection to be qualified to provide the services set forth herein (the “Services”). The submissions of all Respondents shall be compared and evaluated pursuant to the evaluation criteria set forth in this RFQ, and one or more Respondents may be prequalified under each category of services. MBI intends to assign specific tasks to selected Respondents that will support a comprehensive planning process that MBI is undertaking to determine the future direction of the MassBroadband 123 Network (“Network”), The ultimate goal of the planning process is to develop and implement an action plan involving procurement(s) that will position the Network to generate significant public benefits over a long term time horizon.

Mass Tech Collaborative will be the contracting entity on behalf of MBI for the purposes of this RFQ, and (except where the specific context warrants otherwise), MBI and Mass Tech Collaborative are collectively referred to as Mass Tech Collaborative or MassTech. Mass Tech Collaborative will enter into a Services Agreement and Statement of Work with selected Respondents containing certain standard provisions (the “Agreement”), located [HERE](#).

### **1.2 Mass Tech Collaborative and MBI**

Mass Tech Collaborative is an independent public instrumentality of the Commonwealth of Massachusetts chartered by the Commonwealth to serve as a catalyst for growing its innovation economy. Mass Tech Collaborative brings together leaders from industry, academia, and government to advance technology-focused solutions that lead to economic growth, job creation, and public benefits in Massachusetts. Mass Tech Collaborative has five primary divisions: the Innovation Institute at the MassTech Collaborative, the Massachusetts Broadband Institute, the Massachusetts e-Health Institute, the MassCyberCenter, and the Center for Advanced Manufacturing. For additional information about Mass Tech Collaborative and its programs and initiatives, please visit our website at [www.masstech.org](http://www.masstech.org).

MBI is the central broadband program for the Commonwealth. MBI was created in Chapter 231 of the Acts of 2008, An Act Establishing and Funding the Massachusetts Broadband Institute (the “Broadband Act”). The primary mission of MBI is to extend affordable, robust, high-speed Internet access to all homes, businesses, schools, libraries, medical facilities, government offices and other public places across Massachusetts, with a focus on the hard-to-serve areas of western and central Massachusetts. MBI also owns and operates, through a contracted Network Operator, a fiber-optic cable middle mile broadband network (the “Network”). For more information about MBI and its programs and activities generally, please visit the web site at [www.massbroadband.org](http://www.massbroadband.org).

### **1.3 Profile of the MassBroadband 123 Network**

#### **1.3.1 Description of the Network, Service Area and Demographics**

The Network is a 1,200 mile fiber-optic cable, carrier grade, middle mile broadband network that connects 123 communities in western and north central Massachusetts to the Internet. The Network was constructed in 2013 and 2014 and was funded with a combination of state funds and a federal Broadband Technology

Opportunities Program (“BTOP”) grant. The Network’s service territory encompasses more than one-third of the geographic area of Massachusetts.

The service area, including the Network route, is depicted in Figure 1 below. The Network is generally comprised of a main loop throughout western Massachusetts with smaller loops into key parts of the service area. An additional Network route runs along Route 2 to Ayer, where the Network connects to third-party leased fiber through to metro Boston. The Network also utilizes third-party leased fiber along I-90 to create a further link to the Boston metropolitan area. The Network service area is located in a predominantly rural region. At the time that the Network went live in April of 2014, there were numerous towns in the Network footprint that either had substantial gaps in access to broadband service that meets FCC standards or were completely unserved with no incumbent broadband provider. The Commonwealth of Massachusetts, through MBI and the Executive Office of Housing and Economic Development has provided grants to expand broadband access in 44 unserved and 9 underserved towns in the region. The Network service area contains over one million residents, 380,000 households, 34,000 businesses, 2,500 community anchor institutions (“CAIs”), and 3,429 square miles.

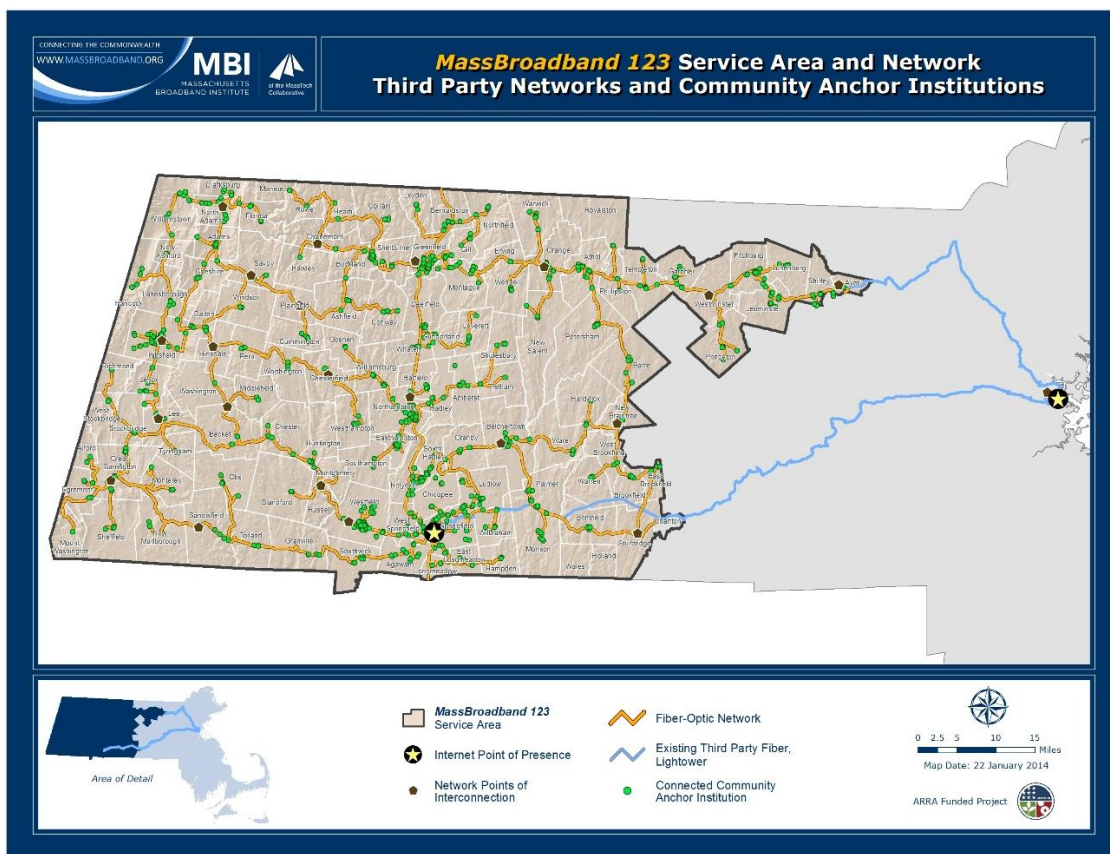


Figure 1: MassBroadband123 Network and Service Area

The Network directly connects with approximately 1,108 CAIs of the more than 2,500 CAIs in the service area, which include federal, state and local government buildings; schools and universities; libraries; hospitals and healthcare facilities; public safety facilities; and wireless communications towers. Public safety CAIs include police and fire stations, as well as e911 public safety answering points (“PSAPs”) and Emergency Operations Centers. Not all CAIs are taking service on the Network. In addition to CAIs the Network also connects to customers such as small businesses, CAIs and businesses may have purchased a single circuit, multiple circuits or share circuit with others. CAIs making use of the Network purchase

services from retail ISPs, who in turn purchase the underlying connections on a wholesale basis from the Network Operator.

### 1.3.2 Network Characteristics

The Network has the following general characteristics:

- 952 miles of fiber construction
- 231 miles of leased fiber enables path diverse transport to a second Internet connection site in Boston
- Fiber passes within 3 miles of at least 98% of all households, businesses and CAIs in the service area
- High strand counts (almost 60% of the fiber cables boast 72 or more strands; major backbone segments have at least 288 strands; and there are 512 strands leading into the Internet Point of Presence in Springfield)
- Slack loops placed an average of every 0.6 miles
- 27 Points of Interconnection (“POIs”) or Network nodes are located in hardened carrier-grade facilities distributed geographically throughout the service area
- Approximately 50% of the 1,108 CAIs that were initially connected to the Network are taking service. There are many CAIs and businesses that are within close proximity to the network (e.g. 1 – 2 miles) which are capable of taking service with the construction of a small extension. And there are other CAIs that are located within 10 miles of the Network
- More than 115 extensions have been built since the initial completion of the network
- 97% of fiber was installed in the communications space on more than 32,000 existing utility poles
- 2% of fiber was installed in existing conduit
- 1% of fiber was installed on new poles or in new conduit
- One Federal Street in Springfield is the primary, carrier-neutral hotel for western Massachusetts and serves as a Network gateway site
- 3 Internet Points of Presence facilities (i.e. Boston, MA; Cambridge, MA; and Springfield, MA)
- Network is run on an open access basis (as required under the terms of the federal grant)

## 2. SERVICES REQUIRED

### 2.1 Overview

Respondents to this RFQ may submit responses to one or more of the categories described herein. **Responding firms should clearly indicate the category or categories for which they wish to be considered for selection.**

The Services described below reflect the anticipated needs of MBI as it undertakes a planning process to evaluate options and implement procurement(s) for the future disposition of the Network. The 10 year agreement with the current network operator expires in August of 2023. MBI may choose, in the sole exercise of its discretion, to qualify all, some, or none of the Respondents. In addition, prequalification of a Respondent pursuant to this RFQ does not guarantee that the MBI will award any work orders for

Services to any selected Respondent. It is MBI's current expectation that work orders for specific tasks will be negotiated and awarded from time to time to qualified Respondents.

## **2.2 Business and Technical Consulting Services**

To support the MBI's middle mile network efforts, the MBI is looking for consultants to assist by:

- Providing advice and assistance with tasks related to all aspects of business modeling for middle mile networks, value chain segmentation, and pricing at every juncture between pure internet access and the offering of retail services;
- Providing assistance with matters related to operation of complex middle mile broadband networks, to include trends and best practices;
- Providing technical, business and financial analysis of BTOP networks in other states, and carrier grade networks in the New England region
- Budgeting, forecasting, and modeling capital and operational expenses, and potential revenue generated from the Network;
- Advising MBI on potential frameworks, deal structures and risk allocation mechanisms for the operation of the Network; and
- Analyzing opportunities to enhance and improve customer development and aggregation strategies.

## **2.3. Product and Pricing Information, Market Research, and Financial Analysis**

The MBI is seeking objective, fact-based information, research and financial analysis to inform and shape MBI's strategy by:

- Conducting a detailed market analysis that models customer demand in terms of bandwidth requirements and potential revenue generation;
- Conducting specific economic research and analyses to test, validate, and provide insights into existing market conditions in urban, suburban and rural areas which relate to broadband deployment in the Network service area, including market potential for existing and emerging technologies (e.g. 100G services, 5Gbackhaul);
- Providing a detailed financial valuation of MBI's Network;
- Providing other targeted financial modeling, analysis, and presentations as required;

## **2.4. Procurement Development Guidance and Support**

A critical component of the MBI's success will be the development of well-thought-out requests for information, qualifications, and proposals and solicitations (collectively, the "Procurement Documents"). Consultant services may be required to assist in the development of the Procurement Documents, the implementation of procurements and the evaluation of responses thereto.

Services required may include but are not limited to:

- Advising and assisting with the drafting of Procurement Documents relating to the future disposition of the Network, including development of the technical and financial elements of Procurement Documents, including Requests for Information, Requests for Qualifications and Requests for Proposals;

- Assist in identifying potential respondents to specific procurement(s) to be released by MBI; assist in identifying opportunities to promote awareness of procurement(s) to potential respondents such as trade publication advertisements;
- Supporting the implementation of procurement(s) by assisting with the planning attending and bidders conferences, responding to bidder's questions; drafting addenda to Procurement Documents;
- Analyzing and evaluating responses to Procurement Documents (including analysis and evaluation of costs outlined in proposals and of future economic impact (costs, revenues, etc.) of proposed solutions); and
- Providing support services to assist the MBI through the negotiation of a contract(s) with the successful bidder(s).

## **2.5. Legal Support**

In addition to the Procurement Development Guidance in Section 2.4, MBI will need assistance with structuring and drafting contractual agreements related to the Network. This may include the following services:

- Contract/lease/license development and negotiation for: maintenance and operation or sale of telecommunications networks, communications related assets, including, but not limited to, overall deal structure and financial and operational terms.
- General telecommunications law expertise at the state and federal level – especially regarding BTOP-funded open access networks.

## **2.6. Fiber Management System and Network Documentation Consulting**

MBI's Network is currently documented as multiple CADD files, custom mapping interfaces and databases that are being maintained by the current Network Operator. MBI also has a GIS dataset that documented the Network as constructed, but it is not currently actively maintained. MBI does not have a fiber management system. However, the current Network Operator has a provisioning management system that it uses.

Respondents will support MBI by:

- Providing advice and recommendations relative to best practices used to maintain network documentation in a manner that will best support MBI's Network (e.g. streamlining network documentation, implementing a fiber management system, etc.).

## **2.7. Network Platform Upgrade Consulting**

MBI's Network is approaching the end of its first decade of operation and network devices and equipment on the Network are likewise approaching end of support and end of life.

Respondents will support MBI by providing advice to MBI and the current Network Operator to support determinations and associated capital investments in the Network for the migration to a new Network platform.

## **2.8. Other Services**

In addition to the services specified above, MBI may choose to task pre-qualified firms with additional services related to the development, administration, and evaluation of current or future broadband programs as such needs arise and to support MassTech/MBI in its engagement with and outreach to local community members, elected officials, policymakers, and all other stakeholders..

## 2.9. Variations on Consulting Services Specified Above

Respondents that have unique expertise in areas related in some relevant capacity to any of the categories set forth above are encouraged to submit responses. Additionally, Respondents are encouraged to propose such other Specialized Consulting Services that they believe would be of interest to the MBI. Such responses should include an explanation of how and why such services would be useful to the MBI.

## 2.10. Deliverables

Respondents will be required to produce deliverables as specified by MBI in a scope of work statement. The types of deliverables that MBI require, include but are not limited to:

- Content for presentations with regard to the Network, which will often involve translating complicated economic and technical subject matter into easily understandable and effective materials;
- High-quality print and electronic materials in a deadline-driven environment; and
- Framework documents, reports, and findings intended for a diverse audience of participants and stakeholders.

## 3 APPLICATION PROCESS

### 3.1 Application and Submission Instructions

Respondents are cautioned to read this RFQ carefully and to conform to its requirements. Failure to comply with the requirements of this RFQ may serve as grounds for rejection of an Application.

- a. All Applications must be submitted electronically, in Microsoft Word or Adobe Acrobat format to [proposals@masstech.org](mailto:proposals@masstech.org) (please include the RFQ number in the subject heading).
- b. Required Submissions- All Applications must include the items listed below:
  - Application Cover Sheet (Attachment A)
  - Executive Summary: Respondents should provide a summary of their organization, the categories for which they seeks qualification and their proposed approach for working with the Mass Tech Collaborative.
  - Statement of Firm Qualifications: All responses must include a statement of qualifications, experience and description of the Respondent firm and its history.
  - Past Performances: The response should specifically indicate the firm's current and historical expertise in providing the Services by category as identified in the RFQ. Please site specific projects that demonstrate the Respondents expertise.
  - Staff Qualifications: All responses must include resumes or bios of each individual who will be providing the Services. All Respondents must identify the individual(s) who will have primary responsibility for contact and communications with the Mass Tech Collaborative and the person who is authorized to negotiate and contractually-bind Respondent.
  - References: All responses must include references from at least 3 clients of the Respondent who have utilized the firm on matters of similar size, scope and complexity to the Services set forth in this RFQ for which the Respondent seeks

qualification. The references must include a contact person, address, email and a phone number.

- **Billing Rates and Structure**: the Mass Tech Collaborative anticipates establishing a set rate schedule with the selected Respondents for the period ending June 30, 2023. In anticipation of this process, Respondents are required to include the following information in their response. Respondents must use the Budget Form in Attachment C for this purpose.
    - A schedule of hourly rates to be charged by personnel identified in the qualification statement above and rate categories for additional personnel that may work on specific assignments.
    - List additional fees, overhead charges, or reimbursable expenses, if any. As a general policy, the Mass Tech Collaborative does not pay mark-ups on reimbursables or out-of-pocket expenses. The Mass Tech Collaborative also does not pay for word processing, overtime or meals. For travel costs, the Mass Tech Collaborative pays the IRS rate per mile.
  - **Authorized Application Signature and Acceptance Form (Attachment B). By executing the Authorized Respondent's Signature and Acceptance Form and submitting a response to this RFQ, Respondents certify that they (1) are in compliance with the terms, conditions and specifications contained in this RFQ, (2) acknowledge and understand the procedures for handling materials submitted to the Mass Tech Collaborative as set forth in subsection d. below, (3) agree to be bound by those procedures, and (4) agree that the Mass Tech Collaborative shall not be liable under any circumstances for the disclosure of any materials submitted to the Mass Tech Collaborative pursuant to this RFQ or upon the Respondent's selection.**
  - Exceptions to the *Services Agreement and Statement of Work*, located at **HERE**, if any.
- c. Any and all responses, Applications, data, materials, information and documentation submitted to Mass Tech Collaborative in response to this RFQ shall become Mass Tech Collaborative's property and shall be subject to public disclosure. As a public entity, the Mass Tech Collaborative is subject to the Massachusetts Public Records Law (set forth at Massachusetts General Laws Chapter 66). There are very limited and narrow exceptions to disclosure under the Public Records Law. If a Respondent wishes to have the Mass Tech Collaborative treat certain information or documentation as confidential, the Respondent must submit a written request to the Mass Tech Collaborative's General Counsel's office no later than 5:00 p.m. fourteen (14) business days prior to the required date of Application submission set forth in Section 3.2 below. The request must precisely identify the information and/or documentation that is the subject of the request and provide a detailed explanation supporting the application of the statutory exemption(s) from the public records cited by the Respondent. The General Counsel will issue a written determination within ten (10) business days of receipt of the written request. If the General Counsel approves the request, the Respondent shall clearly label the relevant information and/or documentation as "**CONFIDENTIAL**" in the Application and **shall only include the confidential material in the hard copy of the Application**. Any statements in an Application reserving any confidentiality or privacy rights that is inconsistent with these requirements and procedures will be disregarded.

### 3.2 Application Timeframe

The application process will proceed according to the following schedule. The target dates are



subject to change. Therefore, Respondents are encouraged to check Mass Tech Collaborative’s website frequently for updates to the schedule.

| <b>Task</b>                                    | <b>Date:</b>             |
|--|--------------------------|
| RFQ Released                                   | May 3, 2021              |
| Questions Due <b>UPDATED</b>                   | May 26, 2021 @ 5 PM EST  |
| Question and Answer File Posted <b>UPDATED</b> | June 2, 2021 @ 5 PM EST  |
| Applications Due <b>UPDATED</b>                | June 16, 2021 @ 3 PM EST |

**3.3 Questions**

Questions regarding this RFQ must be submitted by electronic mail to [proposals@masstech.org](mailto:proposals@masstech.org) with the following Subject Line: “Questions – RFQ No. 2021-MBI-03”). All questions must be received by 5:00 p.m. EST on May 26, 2021. Responses to all questions received will be posted on or before 5:00 p.m. on June 2, 2021 to Mass Tech Collaborative and Comm-Buys website(s).

**4 EVALUATION PROCESS AND CRITERIA**

**4.1 Process**

The Mass Tech Collaborative shall evaluate each Application that is properly submitted. As part of the selection process, Mass Tech Collaborative may invite finalists to answer questions regarding their Application in person or in writing. In its sole discretion, Mass Tech Collaborative may also choose to enter into a negotiation period with one or more finalist Respondent(s) and then ask the Respondent(s) to submit a best and final offer.

**4.2 Criteria**

Selection of a Respondent to provide the Services sought herein may be based on criteria that include but are not limited to:

- Demonstrated capacity, facilities and organizational structure to perform the type of services sought in this RFQ.
- Qualifications and experience of the Respondent and the primary personnel identified to provide the services in each applicable category.
- Record of experience in providing similar services to other clients.
- Demonstrated knowledge of the categories identified in Section 2 of this RFQ for which Respondent seeks selection.
- Reasonableness of the Offered Rates and billing structure, including a stated willingness (and preferably a commitment) to offer additional discounts, flat fees, blended rates, fee caps, substantial use of associates and other forms of competitive pricing during a Mini-Bid or List Selection.
- Lack of debarment status by either the state or federal government is also required.

The order of these factors does not generally denote relative importance. The goal of this RFQ is to select and enter into an Agreement with the Respondents that will provide the best value for the Services to achieve MassTech Collaborative’s goals. Mass Tech Collaborative reserves the right to consider such other relevant factors as it deems appropriate in order to obtain the “best value”.

## 5.0 GENERAL CONDITIONS

### 5.1 General Information

- a) If an Application fails to meet any material terms, conditions, requirements or procedures, it may be deemed unresponsive and disqualified. The Mass Tech Collaborative reserves the right to waive omissions or irregularities that it determines to be not material.
- b) This RFQ, as may be amended from time to time by Mass Tech Collaborative, does not commit Mass Tech Collaborative to select any firm(s), award any contracts for services pursuant to this RFQ, or pay any costs incurred in responding to this RFQ. Mass Tech Collaborative reserves the right, in its sole discretion, to withdraw the RFQ, to engage in preliminary discussions with prospective Respondents, to accept or reject any or all Applications received, to request supplemental or clarifying information, to negotiate with any or all qualified Respondents, and to request modifications to Applications in accordance with negotiations, all to the same extent as if this were a Request for Information.
- c) On matters related solely to this RFQ that arise prior to an award decision by the Mass Tech Collaborative, Respondents shall limit communications with the Mass Tech Collaborative to the Procurement Team Leader and such other individuals as the Mass Tech Collaborative may designate from time to time. No other Mass Tech Collaborative employee or representative is authorized to provide any information or respond to any questions or inquiries concerning this RFQ. Respondents may contact the Procurement Team Leader for this RFQ in the event this RFQ is incomplete.
- d) The Mass Tech Collaborative may provide reasonable accommodations, including the provision of materials in an alternative format, for Respondents with disabilities or other hardships. Respondents requiring accommodations shall submit requests in writing, with supporting documentation justifying the accommodations, to the Procurement Team Leader. The Mass Tech Collaborative reserves the right to grant or reject any request for accommodations.
- e) Respondent's Application shall be treated by the Mass Tech Collaborative as an accurate statement of Respondent's capabilities and experience. Should any statement asserted by Respondent prove to be inaccurate or inconsistent with the foregoing, such inaccuracy or inconsistency shall constitute sufficient cause for Mass Tech Collaborative in its sole discretion to reject the Application and/or terminate of any resulting Agreement.
- f) Costs that are not specifically identified in the Respondent's response and/or not specifically accepted by Mass Tech Collaborative as part of the Agreement will not be compensated under any contract awarded pursuant to this RFQ.
- g) Mass Tech Collaborative's prior approval is required for any subcontracted services under any Agreement entered into as a result of this RFQ. The selected Respondent will take all appropriate steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible. The selected Respondent is responsible for the satisfactory performance and adequate oversight of its subcontractors. Subcontractors are required to meet the same requirements and are held to the same reimbursable cost standards as the selected Respondent.
- h) Submitted responses must be valid in all respects for a minimum period of sixty (60) days after the deadline for submission.
- i) Mass Tech Collaborative reserves the right to amend the Agreement at any time prior to execution. Respondents should review the Agreement as they are required to specify any

exceptions to the Agreement and to make any suggested counterproposal in their Application. A failure to specify exceptions and/or counterproposals will be deemed an acceptance of the Agreement's general terms and conditions, and no subsequent negotiation of such provisions shall be permitted.

## **5.2 Posting of Modifications/Addenda to RFQ**

This RFQ has been distributed electronically using the Mass Tech Collaborative and COMMBUYS websites. If the Mass Tech Collaborative determines that it is necessary to revise any part of this RFQ, or if additional data is necessary to clarify any of its provisions, an addendum will be posted to the websites. It is the responsibility of each potential Respondent to check the Mass Tech Collaborative, MBI and COMMBUYS websites for any addenda or modifications to the RFQ. The Mass Tech Collaborative accepts no liability and will provide no accommodation to Respondents who submit a response based on an out-of-date RFQ.

**Attachment A**  
**Application Cover Sheet**

|   |           |                                     |          |
|---|-----------|-------------------------------------|----------|
| Name of Respondent  |           |                                     |          |
| Mailing Address   | City/Town | State                               | Zip Code |
| Telephone   | Fax       | Web Address                         |          |
| Primary Contact for Clarification   |           | Primary Contact E-mail Address      |          |
| Authorized Signatory  |           | Authorized Signatory E-mail Address |          |
| Legal Status/Jurisdiction (e.g., a Massachusetts Corporation, LLC, LLP, etc.) |           | Respondents DUNS No.                |          |

**Attachment B**  
**Massachusetts Technology Collaborative**  
**Authorized Respondent's Signature and Acceptance Form**

The undersigned is a duly authorized representative of the Respondent listed below. The Respondent has read and understands the RFQ requirements. The Respondent acknowledges that all of the terms and conditions of the RFQ are mandatory, and that Respondent's response is compliant with such requirements.

The Respondent understands that, if selected by the Mass Tech Collaborative, the Respondent and the Mass Tech Collaborative will execute an Agreement specifying the mutual requirements of participation. The undersigned has either (*please check one*):

- specified exceptions and counter-proposals to the terms and conditions of the Agreement; or
- agrees to the terms and conditions set forth therein;

The undersigned acknowledges and agrees that the failure to submit exceptions and counter-proposals with this response shall be deemed a waiver, and the Agreement shall not be subject to further negotiation.

Respondent agrees that the entire response will remain valid for sixty (60) days from receipt by the Mass Tech Collaborative.

I certify that Respondent is in compliance with all corporate filing requirements and State tax laws.

I further certify that the statements made in this response to the RFQ, including all attachments and exhibits, are true and correct to the best of my knowledge.

Respondent: \_\_\_\_\_  
(Printed Name of Respondent)

By: \_\_\_\_\_  
(Signature of Authorized Representative)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment C**  
**Budget Template**

SEE EXCEL SPREADSHEET