

GRANT APPLICATION COVER SHEET

Crocker Communications Application to Massachusetts Technology Collaborative for Last Mile Grants to Provide Broadband Service to Un-served Towns in Western MA
RFP No. 2017-MBI-02

RESPONDENT INFORMATION

Primary Respondent – Organization:	Crocker Communications, Inc.
DUNS Number: 008967109	Respondent Taxpayer ID# and jurisdiction (e.g., “a Massachusetts corporation”) 04-3381593 a Massachusetts corporation
Mailing Street Address: 101 Munson Street	Total Funding Requested: \$18,330,000
State: MA	City/ Town: Greenfield
Website: http://www.crocker.com	Zip Code: 01301
Brief Summary of Project: Bringing broadband service to un-served towns in Western Massachusetts	
Point of Contact Information	
Respondent’s Designated Representative: Authorized to commit organization; notified upon decision of grant award	
Name: Matthew Crocker	Title: President
Organization: If different from Respondent	Phone: 413-746-2760
Email Address: matthew@corp.crocker.com	Fax:
Mailing Street Address: If different from Respondent	City/ Town: If different from Respondent
State: If different from Respondent	State: Zip +4 Code: If different from Respondent
Respondent’s Project Manager: Contact over course of project	
Name: Matthew Crocker	Title: President
Organization: Crocker Communications	Phone: 413-746-2760
Email Address: matthew@corp.crocker.com	Fax:
Mailing Street Address: 101 Munson Street	City/ Town: Greenfield
State: MA	State: Zip +4 Code: 01301

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AUTHORIZED RESPONDENT'S SIGNATURE AND ACCEPTANCE FORM**RFP for Last Mile Grants to Provide Broadband Service to Unserved Towns in Western Massachusetts**

The undersigned is a duly authorized representative of the Respondent listed below. The Respondent has read and understands the requirements of this RFP.

The Respondent specifically acknowledges the application of the procedures regarding submission of sensitive information as set forth in this RFP and specifically agrees that it shall be bound by those procedures. The Respondent understands that all materials submitted as part of the grant application are subject to disclosure under the Massachusetts Public Records Law unless an exemption applies as determined in writing by the Mass Tech Collaborative's General Counsel. Respondent acknowledges that the statutory exemptions from the Massachusetts public records law are very limited and agrees that Mass Tech Collaborative shall not be liable under any circumstances for any disclosure of materials submitted to in connection with this RFP that is required by law.

Respondent acknowledges and agrees that the Mass Tech Collaborative has no obligation, and retains the sole discretion to fund or choose not to fund the application set forth herein, and that Mass Tech Collaborative's receipt of a grant application does not imply any promise of funding at any time.

The Respondent understands that, if selected by the Mass Tech Collaborative, the Respondent and the Mass Tech Collaborative will negotiate a written agreement specifying the terms of the grant funding and the respective rights and obligations of each party.

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

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

Respondent: Matthew Crocker
(Printed Name of Respondent)

By: _____
(Signature of Authorized Respondent)

Name: Matthew Crocker
Title: President
Date: January 11, 2017



OFFICER'S CERTIFICATE

The following questions must be answered by the Respondent.

1. Is your organization in compliance with all of its obligations under all bank lending and other credit (e.g., equipment leases) arrangements and has it been in compliance with these requirements during the past 12 months?

YES

2. During the past 5 years has your organization filed for bankruptcy or has any Principal (more than 5% stockholder or other type of ownership) or officer been an officer or Principal of another firm that filed for or been the subject of any bankruptcy or insolvency proceeding?

NO

3. Has your organization complied with all of its obligations to federal, state and local taxing authorities over the past three years?

YES

4. Has your organization been a named party (either voluntarily or involuntarily) in any legal proceedings, administrative proceedings or arbitrations initiated by a local, state or federal governmental body within the past 5 years that resulted in your organization being sanctioned or ordered to pay fines or penalties in excess of \$10,000?

NO

5. Has your organization or any officer or Principal been convicted in any criminal proceeding (other than minor traffic and other non-felony offenses) during the past 7 years or currently the subject of any similar criminal proceeding?

NO

6. Are your organization's financial statements audited? and,

NO. As a privately held company we have not needed to audit financials. We can in the future if required.

7. If so, have you received a "going concern" opinion from such audit firm during the past three years?

N/A

8. Are more than 25% of your revenues derived from any single customer?

NO

9. Did your organization have positive net income in each of the three most recent fiscal years?

YES

10. Do your organization's tangible current assets (current assets less goodwill) exceed its current liabilities?"

YES

11. Has your organization been terminated or failed to complete work within the past 5 years on a project funded in whole or in part with public funds (local, state or federal).

NO

12. Certify your organization has internal accounting controls as required by Massachusetts General Laws Chapter 30, Section 39R(c).

YES

If you have answered 'Yes' to questions 2, 7 or 8 please explain.



If you answered 'Yes' to questions 4 or 5 please provide appropriate details. If you answered 'Yes' to question 11 please provide appropriate details. If you have answered 'No' to questions 1, 3, 6, 9, 10, or 12 please explain. Attach additional sheets if necessary. See question 6 above.

CERTIFICATION

The undersigned, Matthew Crocker, President, hereby certifies that
(Name and Title)

I am a duly authorized representative of Crocker Communications, Inc.
(Organization Name)

and that all of the foregoing answers and all statements contained in any explanation are complete, true and correct. Providing false or misleading information or failure to provide all required information will be considered grounds for disqualification. I attest to the accuracy of all information contained in this application and verify that the information submitted is in fact complete, accurate and true.

Signed and sworn under the penalties of perjury

Dated at: _____
(Location)

This 11th day of January, 2017.

By: _____
(Signature)

Name: Matthew Crocker

Title/Position: President



GRANT PROPOSAL FORM

Following is each town that Crocker proposes to serve and the corresponding requested grant amount to fulfill the scope of work outlined in this proposal.

Municipality	Proposed Grant Funding (Does Not Exceed MBI Grant Allocation)	Proposed Grant Funding (Exceeds MBI Grant Allocation)	Proposed Level of Residential Coverage*
ASHFIELD	770,000		70%
BECKET	1,290,000		70%
BLANDFORD	560,000		70%
CHARLEMONT	530,000		70%
CHESTERFIELD	500,000		70%
COLRAIN	690,000		70%
CUMMINGTON	450,000		70%
EGREMONT	660,000		70%
FLORIDA	350,000		70%
GOSHEN	450,000		70%
HANCOCK	480,000		70%
HAWLEY	250,000		70%
HEATH	440,000		70%
LEYDEN	370,000		70%
MIDDLEFIELD	310,000		70%
MONROE	130,000		70%
MONTEREY	680,000		70%
MONTGOMERY	300,000		70%
NEW ASHFORD	150,000		70%
NEW BRAINTREE	380,000		70%
NEW MARLBOROUGH	920,000		70%
NEW SALEM	400,000		70%
PERU	380,000		70%
PETERSHAM	460,000		70%
PLAINFIELD	350,000		70%
PRINCETON	910,000		70%
ROWE	220,000		70%
ROYALSTON	610,000		70%
SANDISFIELD	620,000		70%
SAVOY	350,000		70%
SHUTESBURY	510,000		70%
TOLLAND	430,000		70%
TYRINGHAM	260,000		70%
WARWICK	450,000		70%
WASHINGTON	270,000		70%
WENDELL	410,000		70%
WINDSOR	450,000		70%
WORTHINGTON	590,000		70%

* 96% coverage per town can be achieved with additional investment from MBI or subscriber financing. Note: Assumes Alford and Otis are not covered under RFP 2017-MBI-02 as they have received funding.



GRANT APPLICATION NARRATIVE

Crocker Communications Application to Massachusetts Technology Collaborative for Last Mile Grants to Provide Broadband Service to Un-served Towns in Western MA
RFP No. 2017-MBI-02

EXECUTIVE SUMMARY

Crocker Communications has a 50-year track record of providing responsive communications' solutions for residents and businesses in western Massachusetts. Crocker has operated as an Internet Service Provider (ISP) since 1994 and as a Competitive Local Exchange Carrier (CLEC) since 2001. We have deep roots in the region and have forged strong relationships within many of the 40 un-served communities. From the inception of the MBI Broadband 123 Network through its completion in 2014, Crocker served as a vocal proponent of the project. To date, we have provided more services over the middle mile than any of our competitors (large or small). As we well know, until The Last Mile is a reality in Western Massachusetts, these un-served communities have a distinct disadvantage in terms of their access to information, online commerce, even the values of their homes.

Yet, we are all aware of the inherent challenges in fulfilling this RFP:

1. 40 communities, each with distinctive character
2. The sheer size of the region
3. The absence of any population density

If this were easy, it would already be well underway. Few towns have the capacity to own and operate a broadband network. We are fortunate to have firsthand experience with a true success story. Crocker serves as the sole ISP and telephone service provider over Leverett's groundbreaking Fiber-to-the Home (FTTH) Network. We also serve as the de facto system operator. Much has been written about Leverett's success, much of it due to strong, committed community leaders and a take rate of 83%, an achievement for which Crocker can take some of the credit.

Crocker applauds MBI's change in policy to remove municipalities from the burden of ownership of broadband assets. One downside of this change may result in large telecoms proposing to build networks in only a few of the 40 communities where, for them, it is financially lucrative. We happen to believe access to broadband is on a par with electricity and water, and should be available to all communities in a state recognized for its innovation and technological prowess. Our proposal provides an opportunity for all communities to have equal access. Our solution is predicated on a premise that every homeowner understands: there are certain home improvements that significantly increase the value of one's residence. Broadband is one of those improvements. Each homeowner would need to decide if broadband is worth investing in. There's a compelling case to be made that it is. A recent study indicates a \$6,000 increase in value once broadband is available (2015 study commissioned by Fiber to the Home Council Americas).

Alone, Crocker Communications does not meet all of the eligibility criteria listed in the RFP. Partnered with Fujitsu Network Communications, we serve as an extremely credible and reliable resource to fulfill the broadband dream for western Massachusetts' residents. Fujitsu brings world-class capability to FTTP/Wireless infrastructure projects. With decades of experience, proven processes and program management resources backed by a \$40B a year Information and Communication Technology company, Fujitsu is the ideal partner to design and build out the network.

- Fujitsu has recently executed similar projects in other regions.
- The company has a strong balance sheet, adding credibility to project financing.
- The company has an experienced team with extensive knowledge critical to designing, engineering and building a successful broadband network.



The Fujitsu project team, in concert with Crocker Communications, would provide a complete turnkey approach to the project during the design-build phase. Fujitsu would maximize the value of the network by reducing project risks and uncertainty for the infrastructure by making the MBI initiative a priority project. Together, Fujitsu and Crocker would also leverage local resources. As the design-build contractor, we have vast experience using and developing the capabilities of local subcontractors. Fujitsu commits to using local resources, implementing internships and involving local community members throughout the build process.

Key Services provided by Fujitsu include:

- Design and engineering
- Construction
- Installation
- Turn-up and test services
- Logistics management

Throughout the project, Fujitsu's project management team experts would be on the ground, working closely with Crocker to make sure projects, people, resources and priorities are aligned, resulting in the most efficient and cost-effective program implementation possible.

Crocker's partnership with Fujitsu was the result of a call from Fujitsu looking for an ISP in the region. Fujitsu had learned about Crocker through media coverage of the Leverett project and was impressed with Crocker's key role in the success of Leverett Net. Matthew Crocker took advantage of the opportunity and presented the elements of this proposal to Fujitsu. The company was intrigued with the positioning of broadband as a home improvement item and impressed with Crocker's track record as an ISP. Crocker is pleased to have engaged the services of Fujitsu in this endeavor.

With Fujitsu's participation, Crocker Communications' role would play to its strengths:

- We are entrepreneurs and innovators.
- We have deep knowledge of the 38 communities and have established many trusted relationships with members of the select boards and broadband committees.
- We can replicate our success marketing broadband in Leverett (take rate: 83%) in each community.
- We are western Massachusetts' largest provider of ISP services and experienced system operators.
- We are deeply committed to bringing an opportunity that most of us take for granted to the residents of 38 un-served communities.

Specifically, set role would be:

- Overall contracting, management and accountability for Fujitsu's work
- Network owner/operator
- Marketing and customer acquisition
- Installation and referrals at customer premises
- Internet and voice service providers, among a host of value-add services
- Network management
- Ongoing customer service and support
- Billing and collections



In closing, Crocker proposes an innovative and feasible approach to completing the last mile for western Massachusetts' communities. Choosing Crocker provides benefits beyond finally achieving broadband connection for the 38 un-served communities. The Commonwealth is deeply committed to hiring local companies. Beyond hiring Crocker, a company with longevity, the requisite experience and deep relationships in the region, the Commonwealth would be assured of extending economic opportunity to other local businesses and tradespeople. Our proposal is backed by Fujitsu, a \$40B, best in class designer and builder of broadband infrastructure. Fujitsu was recently named to Fortune Magazine's 2016 List of "World's Most Admired Companies"—its fourth consecutive appearance. Our plan assures that neither The Commonwealth, nor any of the individual towns would bear any burden of ownership for the network. Crocker Communications is prepared to assume ownership and to maintain the network for at least the next 15 years. We have provided examples of relevant work as well as Letters of Endorsement, beginning on page 23.



COMPANY HISTORY

Today's Crocker Communications began as a regional answering service in 1963, at the time, few women dared dream of owning a business. But Regis Crocker and her mother made an investment in themselves and launched what would grow to be the largest family owned communications firm in western Massachusetts.

Now in its third generation, the company attributes its success to adherence to the strong values of its founders and its willingness to invest in and master advances in technology. Admittedly small, the company employs 50 people. Throughout its history, Crocker has never shied away from challenge and always finds creative ways to serve the region. Over the years, Crocker has partnered with many best-in-class providers and equipment and ancillary services to provide large-scale solutions.

The company's entrance into the Internet age was initiated at a family dinner in 1992. Matthew Crocker launched the company's Internet business from a Northampton sales office in 1994. He was the sole employee for six months. With his 10 modems and the as-yet little known Linux operating system, he was one of three ISPs in the Pioneer Valley. Over the next decade, Crocker would become the region's largest ISP thanks to its willingness to continually invest in technology and the company's dedicated 24 X 7 X 365 day a year customer service.

In 2014, Crocker was the earliest adopter of the MBI 123 Middle Mile fiber network and first to establish a network-to-network interface with MBI. Crocker lit the first customer on the network and currently maintains nearly 300 lit CAI's and a dozen fiber lateral build customers.

Also in 2014, Crocker was chosen by the Town of Leverett to serve as the sole provider of ISP and telephone services over the town's groundbreaking Fiber-to-the-Home (FTTH) Network. Crocker also serves as the de factor system operator. Crocker is proud to have played a role in bringing fiber to Leverett and looks forward to do the same for the remaining un-served communities.

THROUGHOUT THE YEARS

1963

Crocker Communications began as a regional answering service.

1994

Crocker formed an Internet Division, providing access to the Internet as well as network consulting and installation services.

1999

Crocker built its own datacenter at 1 Federal Street in Springfield MA.

2001

Crocker became a registered Competitive Local Exchange Carrier.

2006

Crocker began to offer voice and hosted phone services.

2014

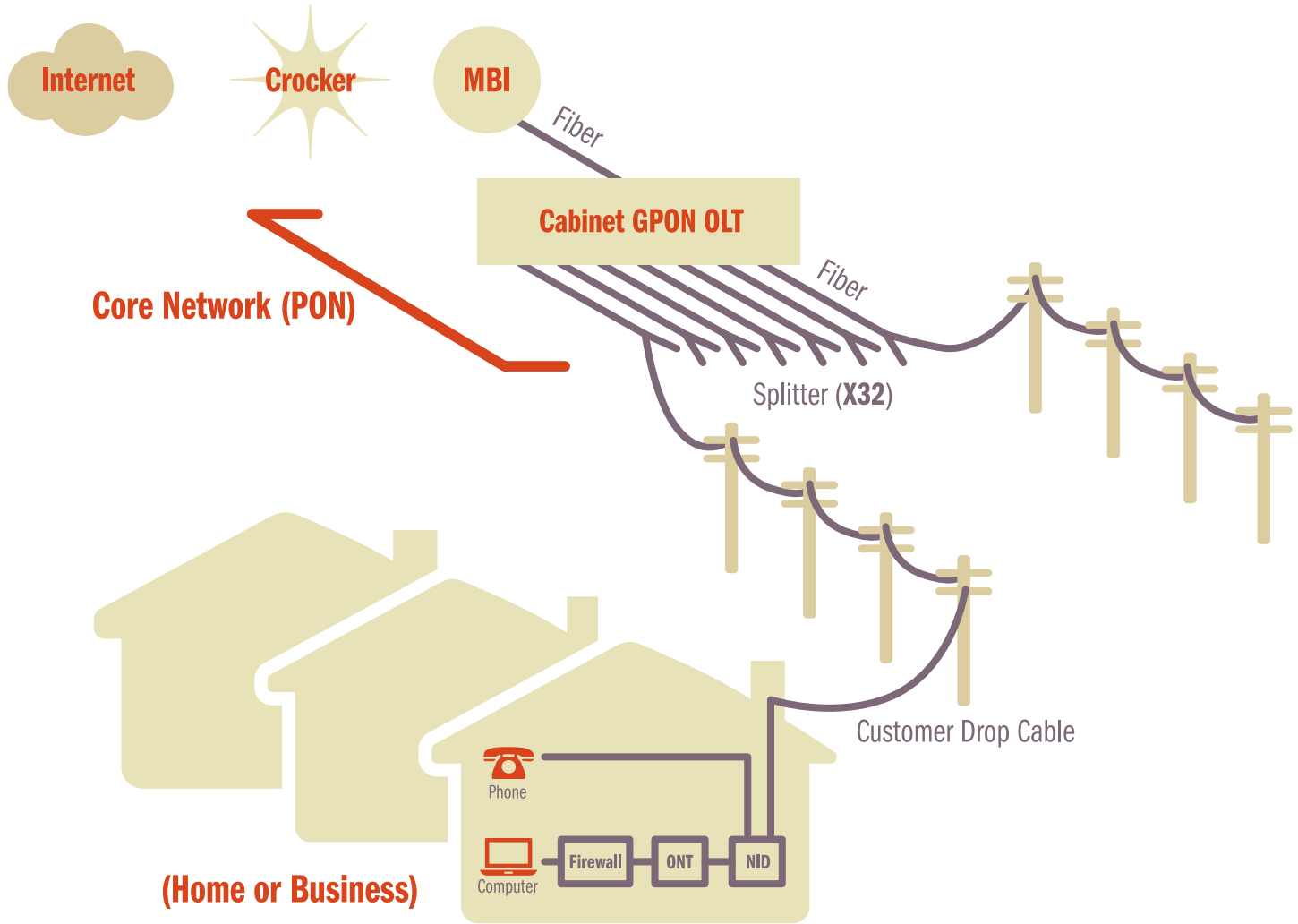
Crocker was chosen by the Town of Leverett as the sole provider of high-speed Internet and phone service over their groundbreaking Fiber-to-the-Home (FTTH) Network.

2015

In April, Leverett FTTH Network began going live. In August, Leverett FTTH was fully installed.



TECHNICAL PROPOSAL



1. High Level Technical Description

Technology to be deployed

Crocker Communications, in partnership with Fujitsu, proposes to design, construct, install and deploy a Fiber To The Home (FTTH) network in the un-served towns in the region. Fiber from homes would be connected through Multi-Service-Terminals (MSTs) and splitters in the distribution network. Splitters would be connected back to a centralized equipment cabinet per town. Smaller towns may share equipment with neighboring towns. Equipment will utilize the latest Gigabit Passive Optical Network (GPON) equipment. Equipment would be connected to our existing MBI infrastructure using current MassBroadband123 Ethernet products. The network would serve both residential and commercial Internet and voice customers.

Maximum bandwidth capacity

GPON equipment provides for 2.5gbps download per Passive Optical Network (PON). Each PON would be split among 32 customers. Local aggregation equipment would be connected with a minimum of 1gbps to the MassBroadband123 Network. With this network design maximum bandwidth allowed per customer is 1gbps.

Design considerations related to long-term sustainability and network reliability, redundancy, security and future expansion

The equipment used defines FTTH network capacity. Current residential equipment (GPON) is capable of 2.5gbps shared on the PON. Next Generation Passive Optical Network (NGPON) is capable of 10gbps.

The FTTH network would be scalable with consumer demand with an expected 30-year lifespan of the fiber. Fiber counts would anticipate current and future customers. Fiber splitters would be loaded to 80% capacity to allow for future expansion of the customer base.

Active components on the network would be equipped with redundant controller cards and battery systems to allow for at least 5 hours of operation after power loss. All aggregation cabinets would have connection options for generators. The design would provide a number of mobile generators ready to be deployed to maintain service during extended power outages.

The aggregation cabinets would be connected to the MB123 network with redundant, diverse path links wherever available. The existing Crocker Communications network is already fully redundant with the MB123 network. Crocker maintains routers in each of the MB123 Springfield and Greenfield regional gateway, as well as the Global Gateway at 1 Summer St in Boston. Existing Crocker network infrastructure is capable of supporting the bandwidth requirements of the proposed network.

Crocker intends to utilize the MB123 Middle Mile, both for diverse connections to town head ends as well as to provide redundant north and south route transport to 1 Summer St in Boston, where we peer with content providers such as Microsoft, Apple, Netflix, Google, and Amazon. Roughly 50% of our traffic traverses our direct peer connections. Crocker currently maintains 10Gbps Network to Network Interfaces (NNIs) to the MBI 123 network in the Springfield and Greenfield Regional Gateways as well as at the Global Gateway at 1 Summer St in Boston. Our current infrastructure can easily scale to 100+ gbps with minimal interface card expense.

Crocker currently employs best Industry practices for network security, intrusion detection and mitigation, and Denial of Service (DoS) attack response. Crocker recently completed a total router network upgrade to Terabit per second Juniper MX480 3D Universal Edge routers, and we continually groom our network for improved performance, efficiency, and security.

2. Approach to Network upgrades over time

From the outset, Crocker would deploy its GPON network with a built-in 20% growth capacity, by enabling an average maximum of 24 subscribers per 32-port splitter. The Crocker business plan calls for a technology refresh every seven (7) years, at which time current technology standards would be evaluated and the latest GPON implemented as appropriate.

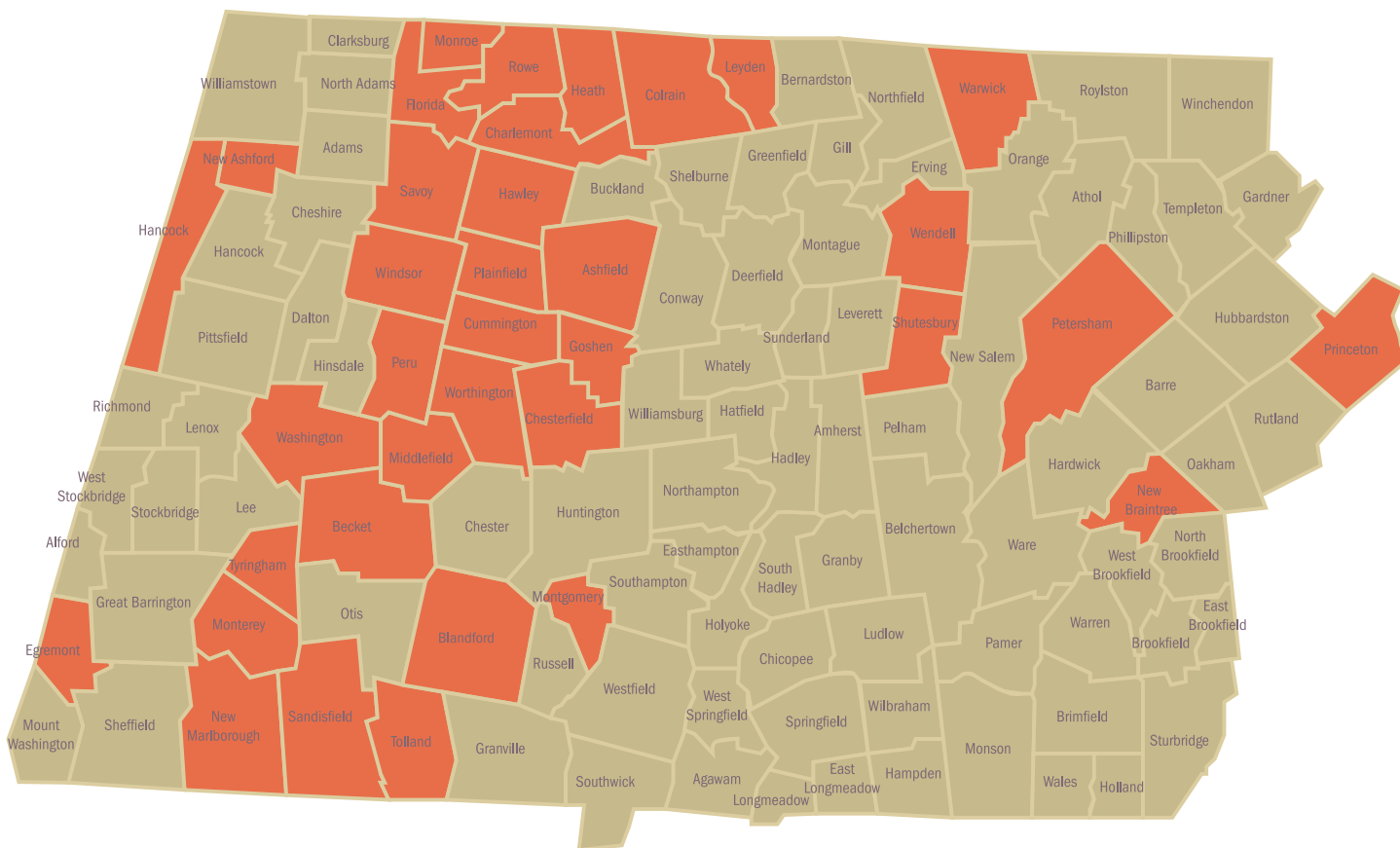
3. Crocker's Plans to utilize the MassBroadband 123 network.

Crocker's plans include use of the MB123 Network wherever feasible. Leveraging dark fiber leases and alienation of network spurs have the potential to significantly reduce costs. We would explore all such avenues during the design and engineering phase of the project. Crocker's in-depth knowledge of the local communities and the middle mile network is of great benefit here.



PROPOSED COVERAGE

Crocker proposes to pass 70% of the homes in each of the town indicated in orange based on a 50% pre-subscription take rate in the town. Crocker can expand coverage to 96% of each town with additional investment from MBI or subscriber financing.



Crocker will start the make ready process upon achieving 50% pre-subscription in each town. Crocker proposes to include premises located on private roads and ways. Additional installation charges may apply on a case-by-case basis.

Crocker would require municipal cooperation and support, such as:

1. Space for a pad-mounted, environmentally secure equipment cabinet in each town, ideally adjacent to an existing MBI CAI.
2. A town-wide electrical permit for work performed at subscriber premises, and access to public rights of way as required to complete construction.
3. Access to existing generator capacity at head-end CAI location is a plus but not required.

Rights of Way Access

Crocker would approach the appropriate authority in each Town to initiate the process to secure necessary rights of way and other rights of access immediately upon completion of the Detailed Design and Engineering for that Town.

BROADBAND SERVICE OFFERINGS AND PRICES

Subscriber Installation Fee

Crocker Communications' model uses a one-time subscriber installation fee to meet the shortfall cost of network construction. This fee is dependent on the percentage of passed homes. Based on the currently available data, we believe the per-subscriber shortfall would be under \$2,000 for 70% passed, and \$3,000 for 96% passed. We have arranged with several local and national consumer credit companies to facilitate the origination of consumer micro loans for this installation. We have received positive responses from several area banks & credit unions. They will be prepared to originate the consumer loans needed to fund the subscriber-financed portion of the construction. Based on the subscribers' credit ratings, the additional monthly recurring costs would be as low as \$20-50/month. We would streamline the loan application process and integrate it with our online subscription system.

Services and Fees

Crocker Communications proposes a single Tier, Fiber Broadband, unlimited Internet usage of \$85/month all-inclusive. Full featured phone service with unlimited local and LD calling, would be an additional \$15/month.

Residential subscribers would be offered a 36-month price stability plan. Crocker would pursue any available state or federal grants enabling discounted services for low income or elderly subscribers.

Rates Within Existing Territory

Following are rates for Leverett, MA:

- Broadband Internet, Unlimited Usage: \$24.95/month
- Broadband Internet and Phone: \$39.95/month

Phone Service includes unlimited Local and LD Calling (48 States, Canada and Puerto Rico) and full feature set.

Please note that in Leverett, Crocker Communications does not own or operate the network. We provide Internet and Telephone services only. In addition to the rates above subscribers pay for the construction through their real estate tax and \$54/month for MLP operating expenses.

Triple Play Services

Video programming is migrating to an Over The Top (OTT) model. Crocker intends to fully support OTT video programming on the network. Crocker will engineer the network to optimize OTT content providers through appropriate peering agreements.

Value Enhancements

We do not have plans to offer free baseline or wifi service as that would erode the potential subscriber base.

Cable Television Licenses

Not Applicable.

Business/Institutional Customers

Businesses in the currently un-served towns would be able to subscribe for services on the network. Small businesses would be able to purchase services similar to our residential offering. Larger businesses would be served on an individual case basis. Crocker offers a full suite of business/institutional services such as Hosted PBX services, Managed Routers and Firewalls, Network and Structured Cable design and Installation, and off-site Colocation services.



OPERATIONAL STRUCTURE AND CAPACITY

Following is the planned approach, infrastructure and resources to design, construct, test, market, deploy, service and manage a FTTH network to currently un-served towns in Western Massachusetts.

Network Design, Engineering and Construction

Crocker plans to utilize the deep experience and expertise of its partner, Fujitsu Network Communications (FNC), to perform network design and engineering as well as Owners Project Manager (OPM). Fujitsu brings deep network design and consulting experience to the project and is very familiar with the region.

Network Design and Engineering

Step One: Network Conceptual Design and Engineering

The Fujitsu and Crocker working team would complete a comprehensive desktop review of all materials and schedule collaborative working sessions to further understand, provide feedback and confirm MBI's design requirements.

Following the desktop review, the team would conduct site surveys to identify, note and document site specific issues that could impact the design criteria for the project. The site surveys would provide sufficient information on the following items to complete the Conceptual Design:

- Preliminary design of backbone and spur segments that connect MBI institutions
- Make-ready requirements for pole attachments
- Site and electronic equipment layout
- Confirm fiber lengths and electronic equipment quantities
- Develop System Schematic/Block diagrams, showing route and optical distances
- Develop Link Loss Calculation budgets

The site surveys would also allow the engineers to identify issues that could potentially impact safety, regulatory requirements and/or constructability at each particular segment or location.

Step Two: Detailed Design

The detailed network design is a critical phase during which team members would develop innovative strategies and approaches to optimize lifecycle costs. Key civil, electrical, optical transport and outside plant / fiber professionals from the team would identify items critical for equipment specification and deployment, including optical specifications, regeneration requirements, optical loss budgets and fiber selection, among others. Key items to be determined during the detailed design phase include:

- Detailed Design of the backbone and spur segments that connect all MBI institutions
- Final Site Development, Equipment Layouts
- Electronic Equipment Design
- Splicing Locations and Details
- Make-Ready Engineering for pole attachments
- Final Optical Loss Budget Calculations
- Fiber cable test and certification plans
- Overall system testing review and certification report



Outside Plant Construction

A highly experienced construction team would be responsible for all aspects of the outside plant construction process, including engagement and training of approved local subcontractors, and driving schedule while maintaining the highest standards of safety, quality and productivity. Beyond physical construction techniques, every effort will be made to simplify design such as utilizing approved local resources with strong local intelligence and identifying optimum methods of placement and routing, minimizing splice locations as appropriate, and effectively reducing project costs.

The Construction Coordinator would perform on-site inspection of the installation crews, focusing on safety, quality of the installation and conformance to the contract documents and industry standards. The inspection data would be consolidated into observation reports, with an established process to notify the specific contractor, the project team and in the event that acceptable process is breached or such inspection reveals non-conforming work. These reports would be tracked and retained by the PM.

A detailed test plan would be developed for acceptance and certification of the fiber optic system as required in the design specifications. The purpose of the forms is to identify any points of failure in the fiber cable prior to equipment being added to the ring. A pre-fiber test would be completed prior to installation of the cable to identify any manufacturer or transportation related damages. A second test demonstrates the validity of the individual fibers following installation, splicing and termination. This test confirms that the fiber is active and verifies that the dB loss remains within the acceptable range for network equipment and MBI's requirements. The testing process is a critical phase of the network's rollout, ensuring that the fiber rings function as designed and that equipment would not be unnecessarily damaged or degraded by low or high levels of light.

Installation

Fujitsu Network Communication's (FNC) electronic construction team would be responsible for all aspects of the equipment installation at each identified location, including coordination with departmental staff and the outside plant construction teams. FNC would maintain the highest installation quality and productivity standards, while minimizing disruption to the services at each existing location. FNC would install all equipment in the specified space; it would then connect power, fiber, antenna feeds and other connections at each node segment and perform acceptance procedures.

The construction at each location would be closely choreographed between the various leads and the construction teams to ensure they meet the requirements and needs of the applicable location. Site access would be arranged prior to the outside plant contractor closing off the relevant node or segment, ensuring the network integrator completes a walkthrough and site survey to determine the site's physical status.

The findings would be compiled into a detailed report, which would form the baseline from which engineers would derive the network element and installation specification for each specific site. The specifications would summarize the technical reference for the projects, including work items, installer notes and a list of relevant materials and drawings. FNC would install all network elements in compliance with the installation specifications and any MBI specific requirements, for example installation into existing relay racks, backboards or other preferred equipment mounting methods.

The PM Construction Network Coordinator / Inspector would perform on-site inspection of the installation teams ensuring safety, quality of the installation, and conformance to the contract documents and industry standards are achieved. Observation reports on safety, quality and productivity would be implemented, including a process for notification to the contractor and immediately upon any observance of non-conforming work. These reports would be tracked and reported by the PM.

Turn-up & Test Services

The testing process is comprised of three key phases, providing certainty that reliable, high speed service would be available once the connection has been certified.



Phase 1: Commissioning

Fujitsu commissions a node or a network through a series of steps that would be tailored around MBI's specific requirements. The following activities all fall under Commissioning nodes:

- Turn-up – the preliminary actions, checks and test performed on a system prior to powering it up and loading the software
- Node Level Test – a series of actions and tests to confirm the node is operational and ready to be provisioned for traffic
- Network Level Test – a series of actions and tests to integrate multiple nodes into a network and confirm the network's performance

Phase 2: Node Turn-up and Test

FNC Network Integration Engineers would perform the following test elements at the node level:

- Check installation including primary and secondary power and ground. Check voltage levels. Check all cable connections as appropriate.
- Unpack and check common cards, clean optical interfaces and position in appropriate slots.
- Sequence up the power and initiate the software load.
- Confirm operation of common equipment and enter basic element provisioning.
- Slot and provision service interfaces cards as defined for the node. Install and clean small form factor modules as required.
- Perform loop back testing on all populated slots.
- Verify, connect to, and communicate with the network operations center and confirm alarm reporting if facilities exist.

Phase 3: Network Acceptance Testing

FNC engineers would perform Bit Error Rate, switching, channel, throughput and latency tests by using specific test & measurement tools, as well as executing temporary circuit provisioning (e.g. cross-connects, software loopbacks, etc.) to enable end-to-end testing across the network.

All test results would be provided to the PM. After testing and acceptance of the systems, design drawings would be updated to as-built documentation and then returned to the PM.

Customer Service

Crocker has been assisting residential subscribers through its Client Support department for over 22 years. We are well aware of the requirements inherent in providing outstanding residential customer support. From its beginnings in dial-up service, through DSL, to today's LeverettNet service, our staff is expertly trained to work with all the major consumer routers, firewalls, and web browsers. Equally as important, Crocker client support specialists are well versed in the techniques required to successfully deal with a largely non-technical user base. Supporting our customers, regardless of their technical savvy, is a given. We believe it's the human being on the customer service desk that makes service great.

Crocker provides 24 x 7 x 365 one-call, toll-free telephone and online customer service to receive and respond to subscriber service-related inquiries, notifications of outage and requests for maintenance up to and including the customer's router or firewall. Employees who are trained in customer telephone support and resolution of network equipment problems answer all subscriber calls. Crocker employs Zendesk, an industry leading ticketing system. This system allows clients to directly request service and provides Crocker Client Support with an efficient means to manage, track and, if necessary, escalate trouble reporting and resolution.

Crocker manages its phone service for optimal performance, quality and reliability. Our Voice over IP algorithm operates at 100Kbps, assuring crystal clear voice quality. Our Broadworks Broadsoft voice switch is the industry leader for reliability and feature richness, and



can be easily expanded to support hundreds of thousands of users. All Crocker Telephone services are provided via in-house systems with in-house 24 x 7 x 365 customer support. Crocker Client Support manages the entire number porting process, enabling a seamless transition from the incumbent carrier to Crocker Phone service.

Crocker currently provides 7 x 24 x 365 Client Support in Leverett, MA. As towns are added, Crocker would expand its support staff, bringing employment opportunities to Western Massachusetts. Crocker anticipates adding as many as 20 additional support technicians. The management team and procedures are in place and our hiring process is streamlined through HR partner ADP TotalSource.

Subscriber Billing

Crocker has been issuing invoices to commercial, institutional and residential customers for over 20 years. Our recently upgraded billing system can easily handle the increased number of subscribers, and can accommodate a variety of payment methods including personal check, credit card (one time or on file for MasterCard, Visa, Discover and AMEX), direct withdrawal (if provided with the necessary information), and ACH directly.

Subscriber marketing and acquisition

Immediately upon award of a town, Crocker would initiate education and presales, including online signup applications. One of the lessons learned in Leverett is the importance of engaging key townspeople to help build enthusiasm and drive the pre-subscription take rate. We employed early signup discount incentives, set up pre-subscription tables at the town transfer station, town meetings, and town fairs. We distributed signage, encouraging pre-subscription along well traveled routes in town. We sent out pre-subscription mailings with pre-addressed and stamped return envelopes to all town residents. We would implement all of these proven methods, as well as host seminars and provide online education and signup, for each of the towns awarded. Crocker has been in direct communication with a majority of the unserved towns for the past several years. We would be able to ramp up the sales process quickly after an award.

Installing customer premises equipment

Crocker's successful process and management of installing equipment at customer premises in Leverett would be employed here. In Leverett, we provided in-home installation services through Crocker's Electrical and Networking Division while also providing referrals to local electricians. We provided installation mock-up models at the town hall and offered schematics and written instructions for inside wiring. Approximately one third of subscribers used Crocker installation services, about one third used a local electrician we referred, and about one third used their own resources.

Operating and Maintaining the Network

Crocker would combine its own resources within its Client Support team and its Electrical and Networking Division with trusted partners to operate and maintain the network.

Crocker has the monitoring tools and hands on-experience with FTTH equipment to operate a GPON network of the scope proposed. We have a trouble ticket creation and management system in place today that would track troubles and assure timely dispatch of required resources. We intend to perform daily incidental maintenance and repairs with our own resources, which include in-house fiber splice technicians and equipment and bucket trucks.

For maintenance and repair on a larger scale, we would depend on our partner Massachusetts-based Phoenix Communications for multiple bucket trucks on retainer with guaranteed response times throughout the region. Crocker would have all the necessary extended warranty arrangements in place with equipment manufacturers to assure a quick response to equipment issues and the timely input of updates. Crocker already maintains a 7 x 24 x 365 call center and has sufficient IPv4 & IPv6 address space to easily accommodate all subscribers added to our network through this RFP.



ASSURANCE OF LONG-TERM SERVICE

Crocker Communications has been operating as a communications company in Western Massachusetts for over 50 years, and has been an Internet Service Provider in this region for over 20 years. Our roots are deep in the region. We would commit to maintaining the network for a minimum of 20 years. Crocker anticipates that we would work together to put in writing details and commitments to provide assurance of the long-term integrity and operation of the FTTH network asset.

PROJECT SCHEDULE

Planning and Design

Education & Pre-Sales: Upon award of the grant, Crocker would commence several geographically dispersed educational sessions to inform towns on the Crocker model for the network. This would give opportunity for residents to ask questions and start the presubscription process.	Months 0 to 9
Conceptual Design: This would include a desktop review using engineering software estimating tools; results provide estimated BOM and cable footages.	Months 0 to 6
Detailed Design: Most, if not all, design would be aerial cable. Timeline is dependent upon make-ready work (approvals, physical work, etc.).	Months 6 to 12

Make Ready

Achieve funding goals: After a town achieves 50% committed subscription rates, we would execute the micro loan agreements for all subscribers in the town. Crocker would escrow the funds for use in the make ready and construction phases.	Months 10 to 11
Make Ready: After funding has been secured for the town, we would apply for pole attachment licenses on the designed route with the appropriate utilities. We would work closely with the Commonwealth and the utilities to achieve make ready completion as quickly as possible.	Months 12 to 24

Outside Plant Construction

Core network construction: As sections of pole attachment/make ready are completed, we would begin installation of the core network and distribution fiber. The timeline dependences are on winter weather and traffic control.	Months 20 to 44
Equipment installation: As core network construction is reaching completion, we would schedule the installation of the node cabinet/OLT in the town. Ideally this node would be installed near an existing MB123 CAI location. Once installed, we would order an appropriately sized circuit from MB123 to provide backhaul of the network to the Crocker routers.	Months 40 to 42



Network Turn-Up and Provisioning of Service, Deployment, Customer Acquisition and Onboarding

Fujitsu tune up and test services: Includes commissioning, node tune up and test and network acceptance testing.	Months 40 to 44
Customer acquisition would start in phase 1 and would be ongoing throughout the construction process.	Months 0 to 36
Onboarding of new customers: Once the node cabinet and electronics are operational, we intend to install customer connections as network assets are completed and tested. The goal is to get customers active and billable as quickly as possible. In Leverett, we on boarded customers over a 3-month period as fiber terminations to each home were completed.	Months 40 to 48
Installation of drop cable: Crocker would install and terminate a drop cable to the subscribers' houses. The passive fiber termination would be installed near the existing Verizon Network Interface Device (NID). The drop cable would be installed consistent with the current home access methods.	Months 40 to 48
<p>Installation of consumer electronics: Consumer electronics would be installed in 1 of 3 ways</p> <ol style="list-style-type: none"> 1. Crocker would contract with installation companies to install the electronics in the subscribers' homes. Subscriber would need to be home when the installers are in the area to allow for installation. 2. Crocker would train local electricians and communications technicians on correct installation procedures. Subscribers would contact the local electricians to schedule an installation directly. 3. Crocker would have homeowner self-installation kits a subscriber could pick up or have shipped from our office. Subscribers would need to install the equipment and go through a self-guided registration process through our online billing interface. 	Months 40 to 48

PROPOSED GRANT AMOUNT

Crocker proposes to serve any and all Towns eligible for grants. As a result, Crocker requests 100% of all funds allocated for each Town awarded.

Any increase in grant allocation amounts would be used to increase coverage and/or reduce the amount of subscriber contribution to the cost of the build as described in Broadband Service Offerings and Pricing.

EXPERIENCE AND REFERENCES

MBI Middle Mile and CAI's

Crocker Communications was the earliest adaptor of the MBI 123 Middle Mile fiber network. Crocker was the first Service Provider to establish a Network to Network Interface (NNI) with MBI, and we currently maintain 10Gigabit NNIs in the Springfield and Greenfield Regional Gateways as well as the Boston Global Gateway. We lit the first customer on the network and we currently maintain nearly 300 lit CAI's and a dozen fiber lateral build customers. Please contact Dave Charbonneau, Technical Director: Charbonneau@masstech.org

CW MARS – Library Consortium

Crocker has built and operates a regional network connecting over 90 Libraries in Western MA, largely utilizing the MBI 123 Network. Please contact CW MARS Executive Director Timothy Spindler at: tspindler@cwmars.org



Leverett Municipal Light Plant

Crocker is the first ISP for the successful Leverett Broadband Project. Crocker was responsible for all early marketing and pre-subscription sales, achieving a 75% take rate 6 months before the first premises was lit. Current take rate approaches 90%, with about 60% also subscribing to Crocker phone services. In Leverett, Crocker is responsible for all subscriber support, initial trouble diagnosis, trouble ticket creation, tracking and reporting, and network operator dispatch. Crocker currently enjoys a positive customer satisfaction rating of over 94%, as measured by customer service post-engagement surveys. Contact Town Administrator Margie McGinnis at: townadministrator@leverett.ma.us

School Districts

Pittsfield Public Schools: Crocker built a new Gigabit network for the District which has been in operation since July 2016. The build included all new Juniper routers and a combination of MBI 123 Middle Mile fiber with Verizon fiber assets for schools not connected to MBI 123. The Pittsfield Public Schools network serves the Information needs of 5609 students and 1326 faculty and staff. Please contact Randy McLeod, Technology Director for Pittsfield Public Schools: rmcleod@pittsfield.net.

Chicopee Public Schools

Crocker built a new Gigabit network for Chicopee Public Schools utilizing fiber assets from MBI, Five College Network, and the City of Chicopee. The network has been in operation since July, 2014. Crocker also provides a high-end managed Firewall for the District. The Chicopee Public Schools network supports the Information needs of 7,712 students and 1572 faculty and staff. Please contact Rose Blais, Assistant Superintendant Technology/ Telecommunications Services: rblais@chicopeeps.org.



FINANCIAL RESOURCES

Crocker Communications Inc Crocker Telecommunications LLC Combined Condensed Income Statement

	2016	2015	2014	2013
Revenues	\$ 7,430,390	\$ 6,867,245	\$ 6,479,605	\$ 5,772,882
Cost of Revenues	\$ 2,672,288	\$ 2,632,472	\$ 2,491,753	\$ 2,215,337
Gross Profit	\$ 4,758,102	\$ 4,234,773	\$ 3,987,852	\$ 3,557,545
Operating Expenses	\$ 4,700,451	\$ 3,728,250	\$ 3,707,054	\$ 3,395,791
Net Income	\$ 57,651	\$ 506,503	\$ 280,798	\$ 161,754

Crocker Communications Inc Crocker Telecommunications LLC Combined Condensed Balance Sheet

	2016	2015	2014	2013
ASSETS				
Current Assets				
Cash	\$ 198,622	\$ 117,906	\$ 95,633	\$ 78,499
Other Current Assets	\$ 1,257,365	\$ 1,041,268	\$ 1,014,129	\$ 901,428
Total Current Assets	\$ 1,455,987	\$ 1,159,174	\$ 1,109,762	\$ 979,927
Property and Equipment (Net)	\$ 634,462	\$ 472,753	\$ 324,730	\$ 329,551
Other Assets	\$ 47,003	\$ 628,279	\$ 73,054	\$ 24,579
Total Assets	\$ 2,137,452	\$ 2,260,206	\$ 1,507,546	\$ 1,334,057
LIABILITIES AND EQUITY				
Current Liabilities	\$ 1,228,696	\$ 1,820,880	\$ 1,453,419	\$ 1,169,172
Long Term Liabilities	\$ 1,377,449	\$ 623,450	\$ 543,380	\$ 807,856
Total Liabilities	\$ 2,606,145	\$ 2,444,330	\$ 1,996,799	\$ 1,977,028
Shareholders Equity	\$ (468,693)	\$ (184,124)	\$ (489,253)	\$ (642,971)
TOTAL LIABILITIES and EQUITY	\$ 2,137,452	\$ 2,260,206	\$ 1,507,456	\$ 1,334,057

Crocker Communications Inc Crocker Telecommunications LLC Combined Condensed Statement of Cash Flow

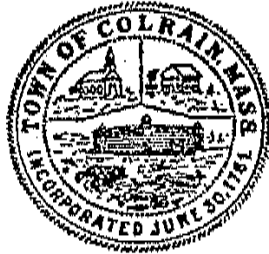
	2016	2015	2014	2013
OPERATING ACTIVITIES				
Net Income	\$ 57,651	\$ 506,503	\$ 280,798	\$ 161,755
Adjustments to Net Cash				
Operating Activities	\$ 547,753	\$ (210,530)	\$ 331,239	\$ (143,428)
Investing Activities	\$ (535,137)	\$ 350,728	\$ 54,497	\$ 290,128
Financing Activities	\$ 68,100	\$ (117,926)	\$ (368,866)	\$ (155,594)
Net cash increase (decrease) for period	\$ 80,716	\$ 22,272	\$ 16,870	\$ (8,894)
Cash at beginning of period	\$ 117,906	\$ 95,633	\$ 78,764	\$ 87,658
Cash at end of period	\$ 198,622	\$ 117,906	\$ 95,633	\$ 78,764

A word about Fujitsu's financial strength

Fujitsu Network Communications, a \$40B a year Information and Communication Technology company, would be contracted to design and build the network.



ATTACHMENT A



TOWN WHERE A U.S. FLAG WAS FIRST
RAISED OVER A PUBLIC SCHOOL. MAY, 1812

Town of Colrain
55 Main Road
Colrain, MA 01340
Tel 413-624-6306
Fax 413-624-8852
EMAIL: bos@colrain-ma.gov

December 21, 2016

Mr. Peter Larkin, Special Advisor to the Secretary of Housing and Economic Development

Dear Mr. Larkin:

The Town of Colrain has reviewed the planned response to the MBI-Private Sector Provider RFP of Crocker Communication and urge you to give it serious consideration. We find it worthy of this consideration for the following reasons:

- Crocker seeks to serve any and all towns, regardless of size and location. They do not “cherry pick.”
- Crocker recognizes that not all towns can comfortably borrow for their portion of the Last Mile build, and that even those that can are interested in an option that doesn’t require it.
- Crocker brings unique attributes to the Last Mile solution: Crocker is locally owned and operated, they have extensive experience with both Internet and Telephone service provisioning, they played an integral role in the start-up and success of the Leverett Last Mile project, and they understand the needs and challenges of our region and its towns as perhaps no other vendor can.
- Our town is interested in any solution that reduces our Capital and/or Operating obligation. Crocker’s solution seeks to accomplish both.
- At the end of the day, it’s our subscribers that will sustain the Last Mile network. Crocker’s solution recognizes that and pushes more of the cost of building the network on to those that will most benefit from it by subscribing.

Thank you in advance for your consideration.



ATTACHMENT A

Town of Colrain
55 Main Road
Colrain, MA 01340
Tel 413-624-6306
Fax 413-624-8852
EMAIL: bos@colrain-ma.gov

Sincerely,

Colrain Board of Selectmen

Jack Cavolick, Chairman

Eileen Sauvageau

Jack Cavolick



ATTACHMENT B

TOWN OF HEATH

MASSACHUSETTS



BOARD OF SELECTMEN

January 3, 2017

Peter J. Larkin
Special Advisor EOHED & MBI Board Chair
MBI
75 North Drive
Westborough, MA 01581

Re: Crocker Communications RFP Response

Dear Mr. Larkin:


The Selectboard of the Town of Heath has received an overview of the Crocker proposal and finds it worth your consideration.

Though we have yet to discuss this planned proposal and its faults or benefits, we support the right for Crocker Communications to submit a proposal under the provisions of the RFP. Their proposal contains some interesting solutions for providing broadband to our town and has the potential to significantly reduce the town's financial risk while promising to deliver the Broadband we desperately need.

We feel that excluding Crocker Communications based on various restrictions in the RFP denies us the opportunity to explore broader and more creative ideas that towns can only get from smaller communications companies and also presents the possibility of working with a local company.

We urge you to allow Crocker Communications and any other similar sized communications companies to submit proposals under an edited version of the Private Sector RFP. We ask that MBI and the Governor's office give it serious consideration as well.

Sincerely,
HEATH BOARD OF SELECTMEN


Sheila M. Litchfield
Chairman


Brian DeVriese

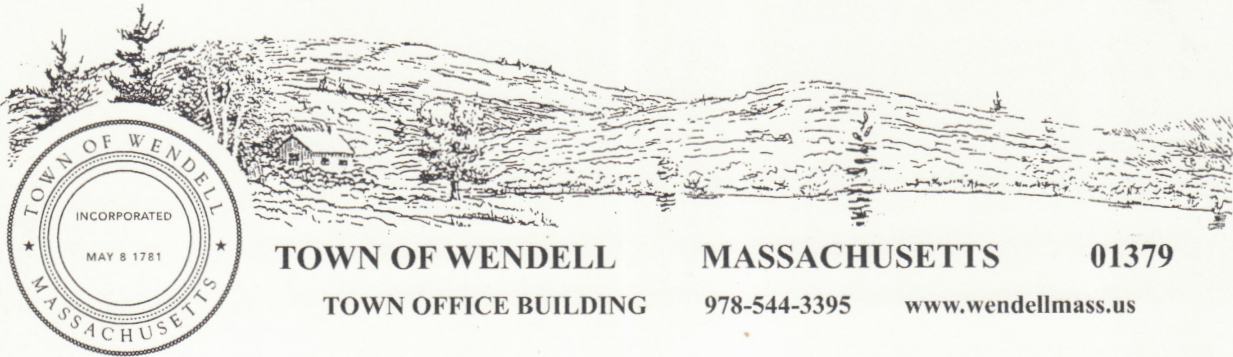

Robyn Provost-Carlson

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<http://www.townofheath.org> • bos@townofheath.org



ATTACHMENT C



January 3, 2017

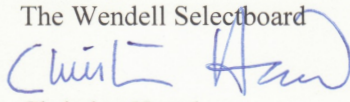
Peter Larkin
Executive Office of Housing and Economic Development
One Ashburton Place, Room 2101
Boston, MA 02108

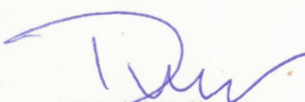
Dear Mr. Larkin,

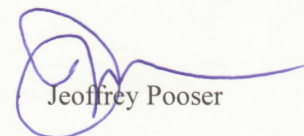
We are writing in support of Crocker Communication's response to the Massachusetts Broadband Institute's Request for Proposals. While there is no perfect solution, their proposal does provide alternatives to some of the more problematic issues facing Wendell where broadband is concerned. We are pleased that Crocker intends to serve any and all towns, regardless of size and location. The town would not be required to borrow money or to pay for bond counsel and annual audits, saving the town a considerable amount of money. The proposed monthly cost to subscribers seems reasonable, and while we are worried that subscribers will have to pay a substantial sum to connect, we feel this trade-off puts the burden on those who will actually use the network rather than forcing those who are not interested in broadband to pay for it with their tax dollars. Finally, we recognize Crocker as a local leader with extensive experience in providing both internet and phone service. As demonstrated by their role in the successful broadband installation in Leverett, it is clear Crocker has a firm grasp on the unique challenges facing our region and the expertise to overcome them.

Wendell welcomes any solution to bring high speed internet to our town that will serve our residents while limiting our capital outlay. Crocker's proposal addresses both of these concerns in a detailed and well thought out manner. We sincerely hope MBI will give it their careful consideration.

Sincerely,
The Wendell Selectboard


Christine Heard


Daniel Keller


Jeffrey Pooser

cc: Governor Charles Baker
Bill Stathis, Crocker Communications

The Town of Wendell is an equal opportunity provider and employer.

ATTACHMENT D

TOWN OF HAWLEY
MASSACHUSETTS 01339

TOWN OFFICE:
8 PUDDING HOLLOW ROAD
TELEPHONE: 413-339-5518
FAX: 413-339-4959

December 27, 2016

Mr. William Stathis
Director of Communications
Crocker Communications
101 Munson Street
Greenfield, MA 01301

Sent via email to: bstathis@corp.crocker.com

Dear Mr. Stathis:

Crocker Communications' approach to our ongoing Internet problem in the Hilltowns seems very creative, and we are cautiously optimistic about its applicability to many towns with a modicum of population density. For a Town like Hawley, though, it would only work if we were able to meet the minimums, and our survey data tends to say we will not meet them any time soon.

We are therefore in a position where, while we heartily endorse your plan for many Towns, our feeling is that to put all of Hawley's hopes in that one basket might be a mistake. We would love to see some hard marketing and demographic data that would allay our fears and prove us wrong, and perhaps you can meet with us at some time in the future to provide that kind of information.

With that and other possible forms of cooperation in mind, we wish you and Crocker Communications the best with your game-changing plan, and look forward to further future discourse.

Best Wishes for the New Year,

 John Sears
 Robert MacLean
 Hussain Hamdan

Town of Hawley Board of Selectmen

Copy: Peter Larkin, Special Advisor to the Massachusetts Secretary of Housing and Economic Development

ATTACHMENT E

**TOWN OF CUMMINGTON**

33 Main Street
P.O. Box 128
Cummington, MA 01026
tel. (413) 634-5354 • (413) 634-5568 fax

December 31, 2016

Mr. William Stathis
Director of Communications
Crocker Communications
101 Munson St.
Greenfield, MA 01301

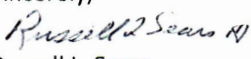
Dear Mr. Stathis:

The Cummington Board of Selectmen wishes to provide their support and encouragement to Crocker Communications for their creativity in fully understanding and appreciating the unique needs of our community as they respond to the MBI RFP. We are committed to a fiber solution and are pleased that Crocker Communications is also committed pending their selection by MBI and the Town of Cummington.


The Selectboard also applauds a solution which will not require bonding. However, as expressed by our Broadband Committee in recent discussions with you, we are concerned over the \$3000-\$5000 take rate each household must bear and the method by which it is paid. Our feeling is that at present the majority our residents will be unable to afford such fees. Consequently, it is going to make it difficult for Crocker and the town to achieve together any minimum subscription rate to begin the much anticipated construction. With our goal to connect fiber to 96 per cent our homes, we expect that as his process continues, Crocker Communications and our MBI Committee will achieve an equitable solution that we can all live with.

Therefore, we are pleased to support your proposal to the MBI. Thank you for you for your commitment, not only to us, but all the other 40 plus underserved towns in Western Massachusetts. Should you be selected by the MBI we will look forward to working with you to achieve the best possible outcome.

Sincerely,


Russell L. Sears
Chairman,
Board of Selectmen


Monica Vandaloski
Selectman


William F. Adams
Selectman

ATTACHMENT F

Town of Sandisfield
Board of Selectmen
P. O. Box 90
Sandisfield, MA 01255
413-258-4711

Mr. William Stathis
Director of Communications
Crocker Communications
101 Munson Street
Greenfield, MA

December 19, 2016

Dear Mr. Stathis:

The Sandisfield Board of Selectmen wishes to state their support for Crocker Communications creativity in responding to the MBI RFP. As you know our town has low density and over 90 miles of roads, making Sandisfield a difficult town to string fiber. We are pleased that Crocker Communications has committed to doing so pending their selection by MBI and the town.

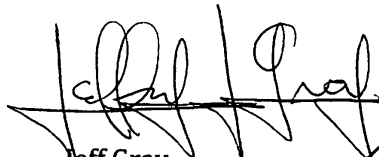
Our Board applauds your solution that does not require bonding. As I have communicated to you through our e-mails, however the Board does have some concerns regarding the take rate if each household must contribute approximately \$3000 through a yet undefined loan mechanism. Our significant population of low to moderate-income residents will not be able to afford this and as a result will remain unserved. Additionally the lack of a television package, important to a number of these residents, will adversely impact the take rate thus insuring that our goal of providing fiber to 96% of our homes will not be met.

We are pleased to support your proposal to the MBI and thank you for your commitment. Should your proposal be selected by MBI we will look forward to future discussions.

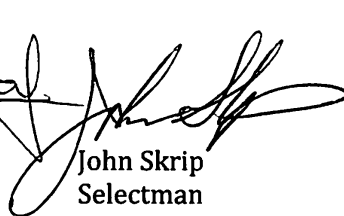
Sincerely,



Alice Boyd
Chairman, BOS



Jeff Gray
Selectman



John Skrip
Selectman

ATTACHMENT G: BUDGET SUMMARY**Crocker Communications, Inc. Subscriber supported FTTH Model***Budget Summary*

Project Summary	
# of poles	50655
Core miles	2056
Distribution miles	1566
Total fiber miles	3622
\$\$/mile	16,331

	Materials	Labor	Total
Make Ready	20,262,000	506,550	20,768,550
Core Network	6,451,056	8,615,500	15,066,556
Distribution Network	6,032,420	8,914,850	14,947,270
Electronics	6,266,800	2,101,400	8,368,200
Total	39,012,276	20,138,300	59,150,576
Design/Engineering/OPM			5,915,058
MBI Grant			(18,330,000)
Equipment Lease			(6,266,800)
Additional Funds Needed			40,468,834
Subscribers			15,334
Install/Subscriber			2,700
Subscriber installation revenue			41,401,800
Surplus (Deficit)			932,966

For full budget details, see electronic file "3. MBI RFP Response Budget3(FINAL).xlsx"



ATTACHMENT H

Funding Commitments

Crocker Communications has acquired funding commitments from a team of world-class organizations

	\$5 M Existing Assets
	\$4 M Equipment Lease
Western Massachusetts Local Banks & Credit Unions	\$10 M Subscriber Financing
	Design/Build

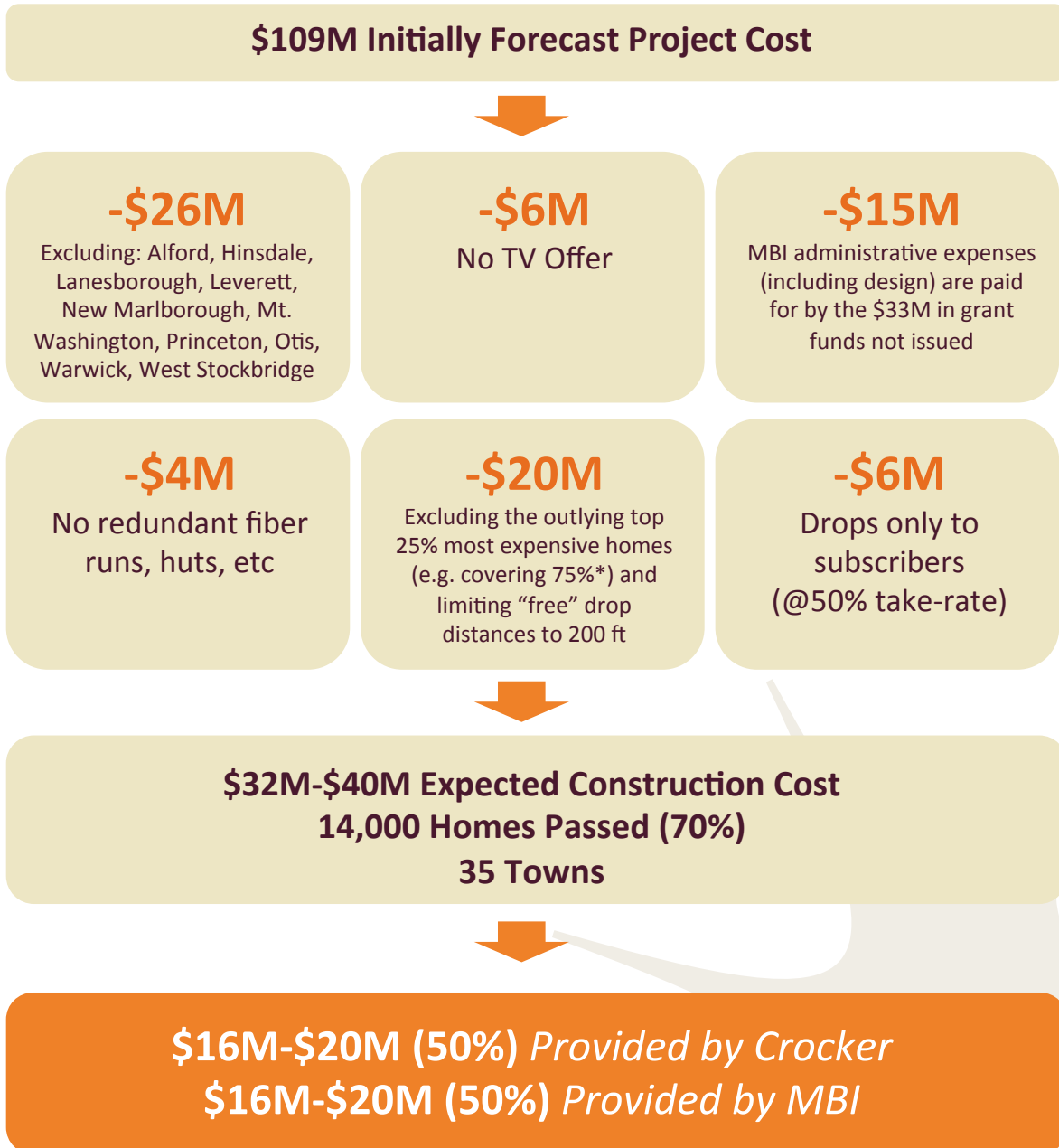
*It's how we're
wired.*



ATTACHMENT I

Updated MBI Capital Forecasts

We have updated MBI's capital cost forecasts based on several important cost-cutting decisions and as a result are prepared to offer SUBSTANTIVELY better terms to the state than the previous Partial Cable deals



*To pass 96%, as is requested in the RFP, Crocker would need an additional \$20M from MBI or from subscribers financing

ATTACHMENT J

Comparable Package Pricing

We expect to offer competitively priced packages that INCLUDE the debt servicing.

	 crocker communications	
Broadband Only (25/3)	\$109-\$130*	\$90 incl. equip
Broadband & Voice	\$124-\$150*	\$109 incl. equip

*\$25-\$50/month of the fee will pay for debt service through a separate contract with each homeowner, financed by Greenfield cooperative bank.

Additionally, as is standard in the industry, there will be an installation charge (\$250) and monthly modem rental (\$7/month). These costs are not included in the Comcast pricing above.

