

Albany County Request for Contract Approval

Contract #	2024-1679
Contract Type	B) CAB Contract
Contract Action	A) New
Procurement Type	RFQ
Department	A1680 - Information Services
Date Submitted	Friday, February 9, 2024
Contact Person	Rogers, Lucas
Contact Phone	1 (518) 447-5566
Vendor Info	ECC Technologies, Inc. 2136 Five Mile Line Road , Penfield, NY 14526
Estimated Amount	\$27,400.00
Estimated Term	2/12/2024 to 12/31/2024 (Approximately 10 months)
Scope of Services	Technical Assistance for Broadband RFP Development including Address Verification, RFP Preparation, RFP Evaluation.
Budget Line Item	AA1680 - 2 - 44046
Fiscal Impact	County: 100.00% State: 0.00% Federal: 0.00%
BID, RFP, RFQ Completed?	Yes - RFQ

Budget Analyst

Date

For Contract Board Use:

Date Approved

Daniel P. McCoy
Albany County Executive

Bruce A. Hidley
Albany County Clerk

Joanne Cunningham,
Chairwoman
Albany County Legislature

DANIEL P. MCCOY
COUNTY EXECUTIVE



COUNTY OF ALBANY
112 STATE STREET
ALBANY, NEW YORK 12207-2021
(518) 447-5670

February 9, 2024

Honorable Daniel P. McCoy
Albany County Executive
112 State Street, 9th Floor
Albany, New York 12207

Honorable Bruce A. Hidley
Albany County Clerk
Albany County Courthouse
15 Eagle Street, 1st Floor
Albany, New York 12207

Honorable Joanne Cunningham, Chair
Albany County Legislature
112 State Street, 7th Floor
Albany, New York 12207

Dear Messrs. McCoy, Cunningham and Hidley:

Albany County is requesting to contract with ECC Technologies, Inc. in the amount of \$27,400 for broadband technical assistance including Address Verification, RFP Preparation, RFP Evaluation. ECC will help the County prepare an RFP to solicit bids to expand broadband services to unserved areas in Albany County.

If you should have any questions, please do not hesitate to contact me.

Sincerely

A handwritten signature in cursive script that reads "Daniel P. McCoy".

Daniel P. McCoy
Albany County Executive



DANIEL P. MCCOY
COUNTY EXECUTIVE

COUNTY OF ALBANY
OFFICE OF THE EXECUTIVE
112 STATE STREET, ROOM 1200
ALBANY, NEW YORK 12207-2021
(518) 447-7040 - FAX (518) 447-5589
WWW.ALBANYCOUNTY.COM

RECOMMENDATION NOTICE

To: Pam O'Neil, Purchasing Agent

From: Office of the Albany County Executive

Date: 2/9/2024

Subject: RFQ # 2024-011
Broadband RFP Technical Assistance

Upon review of the three (3) proposals that were received regarding the aforementioned project, I would like to recommend ECC Technologies, Inc. For the award in the amount not to exceed \$27,400. The proposal submitted by ECC provides the requested services at the best value to the County.



DANIEL P. McCOY
COUNTY EXECUTIVE

COUNTY OF ALBANY
DEPARTMENT OF GENERAL SERVICES
PURCHASING DIVISION
112 STATE STREET, ROOM 1000
ALBANY, NEW YORK 12207-2021
(518) 447-7140 - FAX (518) 447-5588

DAVID M. LATINA
COMMISSIONER OF GENERAL SERVICES

PAMELA O NEILL
PURCHASING AGENT

MEMORANDUM

TO: Office of the County Executive

FROM: Pamela O Neill *Pamela*
Purchasing Agent

DATE: February 9, 2024

RE: RFQ#2024-011-R Broadband RFP Technical Assistance

I am in receipt of your recommendation to award the aforementioned to ECC Technologies, Inc. for the award amount not to exceed \$27,400.00

As ECC Technologies, Inc. was the lowest total quote received and met all the criteria I have no objection to your selection.

Please obtain the necessary contract approval of the Contract Administration Board so that we may issue a Notice of Award.

COUNTY OF ALBANY
REQUEST FOR QUOTES #2024-011
Broadband RFP Technical Assistance
Economic Development, Conservation, and Planning

SECTION 1: PURPOSE:

- 1.1 The County of Albany is seeking quotes from qualified organizations to conduct countywide address verification of properties unserved by broadband and assist the County in preparing a Request for Proposals for projects to extend broadband access to unserved areas.

SECTION 2: RECEIPT OF QUOTES:

- 2.1 Quotes must be received original form or by fax or email, by close of business (4:30 p.m.) on 1/19/2024, at the following address, fax number, or email address:

Pamela O Neill
Albany County Purchasing Agent
112 State Street, Room 1000
Albany, NY 12207

Fax # (518) 447-5588

Email: pamela.oneill@albanycountyny.gov

- 2.2 Albany County reserves the right to reject any or all quotes in whole or in part, to waive any and all informalities, and to disregard all non-conforming, non-responsive or conditional quotes.
- 2.3 Submission of any quote indicates acceptance of the conditions contained in the RFQ, unless clearly and specifically noted otherwise in the quote.
- 2.4 Albany County may, at any time, by written notification to each vendor having obtained a copy of the RFQ through the Albany County Purchasing Division office, change any portion of the RFP described and detailed herein.
- 2.5 Quotes and supporting documentation will be examined and evaluated by the Office of the County Executive and Department of Economic Development, Conservation, and Planning.

SECTION 3: VENDOR QUALIFICATIONS:

3.1 Any vendor submitting a quote to provide services under this RFQ shall possess the following minimum qualifications:

- *Experience conducting similar projects for Counties in New York State within the last five years.*
- *Extensive knowledge of New York State and Federal Broadband Initiatives*

3.2 In addition, Albany County may make such investigations it deems necessary to determine the ability of the vendor to perform the work. The vendor shall furnish to the County , within five (5) days of a request, all such information and data for this purpose as may be requested. The County reserves the right to reject any quote if the information submitted by, or investigation of, such vendor fails to satisfy the County that such vendor is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional quotes will not be accepted.

SECTION 4: SCOPE OF SERVICES:

4.1 Addresses Verification - Countywide address verification to ensure an accurate accounting of unserved addresses in Albany County. Use existing data and best-practice validation techniques to ensure accuracy.

4.2 RFP Preparation – Assist the County in preparing an RFP for projects to expand broadband service to unserved addresses in Albany County. The RFP should be designed to attract one or multiple proposals that will fully address broadband coverage gaps in Albany County and will be positioned to take advantage of local, state, and federal broadband funding.

Add Alternate:

4.3 RFP Evaluation – Assist the County in reviewing and evaluating responses to the above mentioned RFP. (Albany County reserves its rights to award based upon the proposal and any add/alternate during the term of the agreement)

SECTION 5: TERM OF CONTRACT:

5.1 The contract period shall be *January 2024 – June 2024*

5.2 The selected vendor shall execute a contract with the County of Albany in substantial conformance with this RFQ.

SECTION 6: QUOTE SUBMISSIONS:

6.1 In order for the County to conduct a uniform review process of all quotes, quotes must be submitted in the format set forth below. Failure to follow this format may be cause for rejection of a quote because adherence to this format is critical for the County's evaluation process:

I: Vendor Identification

Give the name of the firm, address, telephone and facsimile numbers, contact person and email address.

II: Vendor Qualifications

- a. Provide a brief history and description of your firm.
- b. Identify your firm's professional staff members who would be involved in the County engagement, and the experience each possesses, and the location of the office from which each work.
- c. Give the name and title of person(s) authorized to bind the firm in a contract with Albany County.
- d. Detail your firm's experience with Address Verificaiton and *Broadband RFP drafting and grading*
- e. Provide at least two (2) references from similar projects including name, addresses and telephone numbers.
- f. Provide any additional information that would distinguish your firm in its service to Albany County.

III: Plan Implementation - The Plan Implementation Section must address the Scope of Services in terms of the vendor's plan to carry out the requested service.

IV: Cost Proposal Section -

- a. Submit a cost proposal for the services described in this RFQ. Including separate cost totals for address verification, RFP preparation, and RFP evaluation. (if applicable:) and on the Cost Proposal Form included herein.
- b. Detail the fee structure for the work. Provide hourly rates and reimbursable costs if not included in the lump sum.
- c. Provide any other relevant information that will assist the County in evaluating your quote submission.

SECTION 7: QUOTE EVALUATION:

- 7.1 Quote submissions will remain valid until the execution of a contract by Albany County, unless otherwise rejected consistent with this RFQ.
- 7.2 Quote submissions received will be evaluated by the Albany County Executive Office and Department of Economic, Conservation, and Planning based upon the following

<i>CRITERIA</i>	<i>WEIGHT</i>
Technical Capabilities	25%
Qualifications and Experience	25%
Cost Proposal	25%
Project Approach and Timeline	25%-
	100%

SECTION 8: INDEMNIFICATION:

- 8.1 The successful vendor shall defend, indemnify and save harmless the County, its employees and agents, from and against all claims, damages, losses and expenses (including without limitations, reasonable attorneys’ fees) arising out of, or in consequence of, any negligent or intentional act or omission of the successful vendor, its employees or agents, to the extent of its or their responsibility for such claims, damages, losses and expenses.

SECTION 9: SPECIFICATION CLARIFICATION:

- 9.1 All inquiries with respect to this Request for Quotes must be directed to the Albany County Purchasing Agent as follows:

Pamela O Neill
Albany County Purchasing Agent
112 State Street, Room 1000
Albany, NY 12207
(518) 447-7140 (Telephone)
(518) 447-5588 (Fax)
E-mail: pamela.oneill@albanycountyny.gov

9.2 All questions about the meaning or intent of the specifications must be submitted to the aforementioned designated person in writing. Replies will be issued by Addenda mailed or delivered to all parties recorded as having received the RFQ documents. Questions received less than four (4) days prior to the quote submission deadline will not be answered. Only questions answered by formal written Addenda will be binding.

SECTION 10: INSURANCE AND SECURITY REQUIREMENTS:

10.1 The successful vendor will be required to procure and maintain at its own expense, the following insurance coverage:

- (a) **Worker's Compensation and Employer's Liability Insurance:** A policy or policies providing protection for Employees in the event of job related injuries.

- (b) **Automobile Liability Insurance:** A policy or policies of insurance with the limits of not less than \$500,000 combined for each accident because of bodily injury sickness or disease, sustained by any person, caused by accident, and arising out of the ownership, maintenance or use of any automobile for damage because of injury to or destruction of property, including the loss of use thereof, caused by accident and arising out of the ownership, maintenance or use of any automobile.

- (c) **General Liability Insurance:** A policy or policies or comprehensive all-risk insurance with limits of not less than:

Liability For:	Combined Single Limit
Property Damage	\$1,000,000
Bodily Injury	\$1,000,000
Personal Injury	\$1,000,000

10.2 Each policy of insurance required shall be of form and content satisfactory to the Albany County Attorney:

- (a) Albany County shall be named as an additional insured on all liability policies. **RFQ number must appear on insurance certificate.**

- (b) The policy shall not be changed or canceled until the expiration of thirty (30) days after written notice to Albany County. It shall be automatically renewed upon expiration and continued in force unless Albany County is given at least thirty (30) days written notice to the contrary.

10.3 No work shall be commenced under the contract until the successful vendor has delivered to the County Purchasing Agent or his designee proof of issuance of all policies of insurance required by the Contract to be procured by the successful vendor. If at any time, any of said policies shall expire or become unsatisfactory to the County, the successful vendor shall promptly obtain a new policy and submit proof of insurance of the same to the County for approval. Upon failure of the successful vendor to furnish, deliver and maintain such insurance as above provided, the contract may, at the election of the County, be forthwith declared suspended, discontinued or terminated. Failure of the successful vendor to procure and maintain any required insurance, shall not relieve the successful vendor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligations of the successful vendor concerning indemnification.

SECTION 11: REMEDY FOR BREACH:

11.1 In the event of a breach by CONTRACTOR, CONTRACTOR shall pay to the COUNTY all direct and consequential damages caused by such breach, including, but not limited to, all sums expended by the COUNTY to procure a substitute contractor to satisfactorily complete the contract work, together with the COUNTY's own costs incurred in procuring a substitute contractor.

SECTION 12: Section not in use:

SECTION 13: INTERPRETATION

13.1 In the event of any discrepancy, disagreement or ambiguity among the documents which comprise this RFQ, and/or, the Agreement (between the County and the successful vendor) and its incorporated documents, the documents shall be given preference in the following order to interpret and to resolve such discrepancy, disagreement or ambiguity: 1) the Agreement; 2) the RFQ; 3) the Contractor's proposal or bid.

COUNTY OF ALBANY

QUOTE FORM

REQUEST FOR QUOTE IDENTIFICATION:

Title: Broadband RFP Technical Assistance
RFQ Number: 2024-011

4.1 Address Verification \$ _____

4.2 RFP Preparation \$ _____

Add alternate:

4.3 RFP Evaluation \$ _____

COMPANY: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

TEL. NO.: _____

FAX NO.: _____

FEDERAL TAX ID NO.: _____

REPRESENTATIVE: _____

E-MAIL: _____

SIGNATURE AND TITLE _____

DATE _____

Response to County of Albany Request for Quotes

Broadband RFP Technical Assistance

RFQ # 2024-011-R

Presented by:

ECC Technologies, Inc.
2136 Five Mile Line Road
Penfield, NY 14526

Contact Person:

Mark Meyerhofer
Director of Broadband
mmeyerhofer@ecctec.com
585- 484-7360

January 30, 2024

All information included in this proposal is considered confidential by ECC Technologies, Inc. The information in this proposal was gathered for the exclusive use of Albany County for the purposes of planning. Any other use of this information is strictly prohibited. This information is considered confidential trade secret information and is not to be reproduced in any form without the expressed written consent of ECC Technologies, Inc. or Albany County.



Pamela O'Neill
Albany County Purchasing Agent
112 State Street, Room 1000
Albany, NY 12007
Re: Albany County RFQ Broadband RFP Technical Assistance (# 2024-011-R)

Dear Ms. O'Neill,

ECC Technologies, Inc. (ECC) is pleased to respond to the Albany County's Request for Quotes for Broadband RFP Technical Assistance. We understand that the County of Albany is seeking quotes to conduct a countywide address verification of properties unserved by broadband and assist the County in preparing Request for Proposals for projects to extend broadband access to unserved areas.

ECC is a New York-based Corporation with over 25 years of expertise in providing professional service. We have offices in Penfield, NY and Raleigh, NC. ECC has demonstrated our capability to provide these services in counties and municipalities.

ECC is responsible for the development of nearly \$3 billion in technology-based projects internationally. Our in-depth understanding and experience in developing community broadband solutions allow us to bring expertise to every aspect of this project. ECC has unique experience in evaluating, designing, and implementing sophisticated telecommunications infrastructures using fiber, copper, coaxial, and wireless mediums for communities, businesses, governments, and others who seek to expand their broadband capabilities.

In May 2022, ECC completed a statewide broadband inventory database, online survey and a first of its kind interactive web application for the State of New York. ECC's broadband inventories provide detailed GIS-based mapping information on broadband services and infrastructure. We further identify gaps in broadband infrastructure by identifying specific addresses and roads that do not have fiber optic-based or coaxial-based broadband.

We understand the challenges facing Albany County. We commend your actions to identify the need and feasibility of providing broadband high-speed internet to the residents and businesses in your communities.

Sincerely,
ECC Technologies, Inc.

A handwritten signature in black ink, appearing to read "J Starks", written over a light blue horizontal line.

Joseph Starks
President

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Section 1. Vendor Identification

ECC Technologies, Inc.
2136 Five Mile Line Road
Penfield, NY 14526
Mark Meyerhofer, Director of Broadband
mmeyerhofer@ecctec.com
(585) 484-7360

Section 2. Vendor Qualifications

Brief History

The ECC team is based in our Penfield, NY metropolitan Rochester office working with our staff in our Raleigh, NC office. Our team has the capability, capacity, and proven track record to accomplish the tasks outlined in the scope of this proposal in the desired timeframe required by Albany County.

Many of ECC's staff have extensive experience in the telecommunications industry. Joe Starks, our President, co-founded Fibertech, a national fiber-based provider recently acquired by Crown Castle. Several of our consultants have worked for Local Exchange Carriers (LEC) and national Competitive Exchange Carriers (CLECs). Our Outside Plant (OSP) engineers have worked in companies such as Verizon, AT&T, and Bell Atlantic. Our experienced staff gives us a unique insight into how these types of companies operate and consider/form business partnerships.

In several states, ECC has been part of community efforts working to deploy broadband services in unserved areas. We have facilitated public/private partnerships between service providers and the organizations they serve on many different levels.

ECC has gained invaluable experience working in communities with various service providers across the U.S. that use fiber infrastructure to develop broadband expansion, facilitate economic development, and enhance educational and public safety programs. In New York State, ECC is credited with the development of the DANC network, Axxess Ontario, the Southern Tier Network (STN), M3S in Monroe County (MonroeNet), and several Fiber to the Home projects across the State. Additionally, ECC is the project manager for the buildout of a 400-mile network in Erie County, which is currently underway.

ECC has provided operational support as well as network planning, engineering, and sales and marketing for several of these networks. In the initiation and development of these networks, ECC provided design, consulting, and business development services required to implement each community-based broadband network. ECC has been directly involved in the startup and development of for-profit broadband companies where all these services were provided by ECC.



Below is a list that summarizes our experience and capabilities.

- ECC is a pioneer of, and has a long history of, performing inventories, assessments, and developing broadband infrastructure and systems. We have been involved in more than sixty programs across New York State, North Carolina, and the U.S., ranging from major metro communities to extremely rural and impoverished communities.
- The foundation of our programs is the development of interactive GIS-based tools that are used to support the development and justification of strategic broadband programs.
- ECC has years of statewide experience with carriers and service providers, both wire line and wireless.
- ECC effectively works with the State broadband groups where we have conducted business. We follow closely the New NY Broadband Program, ConnectALL, Broadband Technology Opportunities Program, and the Golden LEAF Rural Broadband Initiative in North Carolina.
- ECC has developed strong relationships with many County officials and economic development leaders in the states where we work.
- ECC has a history of successfully facilitating public/private partnerships.
- ECC has skillfully assisted our customers in obtaining funding for their projects through state and federal grant programs and through investors. (CAF, RDOF, ARPA, USDA, NTIA)

[The remainder of this page is left intentionally blank.]

Professional Staff Members

The following section includes resumes listing relevant experience of key members of the project team. Nearly everyone works out of the Rochester office. Jeff Holtmann, who will assist with mapping, works out of the Raleigh, NC office. As can be seen from the project chart, Joe Starks, ECC President, will be engaged in all phases of the project.

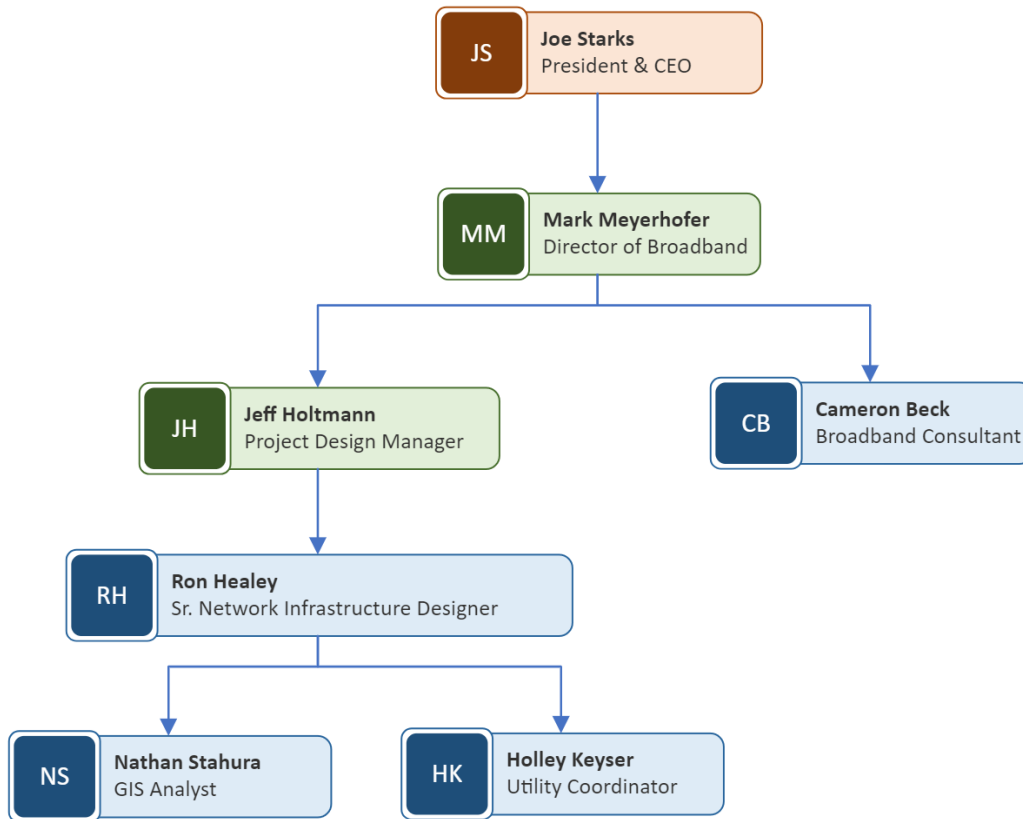


FIGURE 1 ECC ORGANIZATION CHART



Joseph Starks

President

Joseph Starks (Joe) is founder and president of ECC Technologies, a 25-year-old consulting company credited with several successful broadband and healthcare start-ups.

Representative experience includes:

ECC Technologies

As founder of ECC, Joe is credited with the development and maturation of the Open Access Broadband Model, which has been recognized by the FCC and Harvard as a “Best Practice” for underdeveloped Broadband Communities. It should be noted that every Open Access Model developed by ECC is successfully operating today. Some operate as originally developed while others have matured to include some levels of privatization. All are successfully operating.

Collaborative Network Models

Joe excels at the development of collaborative business models supporting technology and Broadband development. He has performed start-up consulting and business development services for dozens of for-profit and not for profit Broadband companies. In addition, he has developed several successful operational, regulatory, and financial models needed to achieve success across several diverse environments. Very accomplished on shared cost and operational models needed to support various Open Access Broadband Models.

Broadband Investment and Public Private Partnerships (PPP)

Joe provides diligence and investment consulting to several privately held investment groups seeking to invest in Broadband technologies and services. These range from Open Access Dark Fiber models to P to P and P to MP Wireless and Fiber to the home opportunities across the US.

Broadband Development

Since inception Joe has managed the ECC team through the development of nearly \$3 billion in fiber and Broadband investment projects across the US.

Co-Op opportunities

Joe is a strong believer in the development of meaningful Broadband related Co-op programs. Our programs have been used by students attending Cornell University’s Johnston School of Business, Rochester Institute of Technology and University of Maryland, among others.

*United States Marine Corp
Service Veteran*

*Visionary with
entrepreneurial attitude*

*Start-up For-profits include
Fiber System LLC, Fibertech
LLC, Rapid Healthcare*

*Start-ups Not For-Profits
and collaboratives in NY
include Development
Authority of the North
Country Broadband
Network, Access Ontario,
Southern Tier Network, Erie
County fiber Consortium,
Monroe Net*

*Nationally recognized as an
authority on collaborative
based rural Broadband
development and performs
public speaking at a
national level*



Mark Meyerhofer

Director of Broadband

Mark Meyerhofer is Director of Broadband for ECC Technologies. He partners with community leaders to identify issues with respect to broadband and develop a vision and plans to resolve.

As Director of Broadband for ECC Technologies, Mark develops funding models and business plans which define municipal as well as privately-owned broadband opportunities. He implements qualitative research including performing market research and collecting business intelligence. Mark also works with local, state, and federal departments to identify, secure, and manage grant funding opportunities.

*B.A. Political Science – State
University of New York at
Buffalo*

*City & State
Western New York
Power 100 List
2021 & 2022*

Broadband Projects

Tompkins County

Franklin County

Saratoga County

Charter Communications (Spectrum) – Senior Director/Director, Government Affairs (2013-2023)

In his role at Charter, Mark oversaw a 52-county region in Upstate New York, guiding all aspects of RFP responses, coordinating with legal and field engineering teams. Mark successfully led these efforts to secure multi-million dollar broadband buildout projects, in order to bring 100% coverage to these areas. Additionally, he assisted with broadband buildout contract agreements for counties and towns, as well as negotiated cable franchise agreements, overseeing 1,100 franchised municipalities.

Patricia Lynch Associates – Associate (2008-2013)

Mark managed a 20-client portfolio, including NRG Energy and Honeywell, worth \$1 million. He created an economic development fund for Western New York through unallocated hydropower from the Niagara Power Project, worth \$7 million annually.

National Grid – Manager, Local Government Affairs (2005-2008)

In his role at National Grid, Mark analyzed, developed, and recommended the company's response to local legislative/regulatory proposals. Additionally, he coordinated electrical power restoration efforts with key elected officials during major storms, including the restoration of 265,000 customers over a 10-day period in October 2006.

NYS Assembly Majority Leader Paul Tokasz – District Office Manager (1995 – 2005)

As the Majority Leader's point person in the Western New York area, Mark negotiated and built consensus among business executives, labor leaders, community leaders, and elected officials around the state.



Jeff Holtmann

Project Design Manager

Jeff Holtmann has been involved with the complete design, contractor selection, and construction management of multiple fiber optic network projects. Adept at performing all phases of project development; overseeing projects from initial conception to final acceptance. Experienced with managing multiple projects at varying stages, through various public jurisdictions/agencies while maintaining effectiveness, efficiency and achieving deliverables on time and in budget. Excellent problem solver with unique solutions to complicated field and design problems; immediately responding to issues, minimizing design implications and client budget inflation. Jeff also brings his wealth of knowledge in CAD and GIS technologies both supporting fiber optic and RF/wireless design and implementation, along with regional broadband assessments.

*B.S. in Architecture -
University at Buffalo*

*Master of Architecture
University of Colorado*

NCARB Certification

Project Management

*Construction Administration
and Bid Creation*

*Fiber Network and
RF/wireless Design and
Oversight*

*Broadband Assessments and
Telecom Inventories*

GIS Mapping and Analysis

Representative projects include:

Piedmont Electric Members Corporation Fiber Backbone Network Phases 1-3 – Hillsborough, NC

Project oversight for a 150+ mile OSP fiber optic infrastructure providing connectivity between three (3) office sites and 23 Substations. Responsible for scheduling design field crews, complete design package production, contractor selection, ROW/ permit procurements, construction administration/ closeout, and client coordination and satisfaction.

Roanoke Electric Cooperative Fiber Backbone, and Smart Grid Network Design project – Aulander, NC

Involved in the design and construction management of the initial REC 110-mile fiber backbone network. Transitioning to Project oversight of the launch of the REC Connect Broadband initiative bringing smart grid device capabilities to the REC membership to help deliver demand management capabilities to reduce overall operating costs for electrical service distribution and Internet services to their membership.

NC Broadband – Broadband Communities, Raleigh, NC

Working with the ECC Broadband Consulting Group, coordinating field crews, including sub-contract labor, for field analysis. Heavily involved in the GIS mapping and desktop research to support telecommunications competition, economic development, and municipal broadband programs across the State. Responsible for project deliverable execution on time and under budget.



Cameron Beck

Broadband Consultant

Cameron Beck has over 25 years of experience in the telecommunications and broadband industry. He held various network engineering related roles with a focus on design, development, and improvement. His experience includes process development, project management, cost savings analysis, circuit design and layout, installation, testing, and implementation of equipment and services.

Projects Include:

NYS Department of Public Service

Projects Broadband Analyst on the New York State Department of Public Services (NYS DPS) to provide the deliverables required from the “Comprehensive Broadband Connectivity Act” of 2021. Functions include project development, report writing and project components relating to deliverables of the legislation.

Erie County, NY

Provided physical inventory of broadband infrastructure within Erie County that consisted of mapping, charts, and reports relating to current inventory of fiber optic and coaxial infrastructure, towers, and owners of the infrastructure. Established Geographical Information System (GIS) maps to identify areas with infrastructure or without and included areas lacking service or below standard service requirement of the FCC or State of New York standards to develop an Open Access Network.

Black & Veatch (Avangrid) – Engineer Technologist

Gather audit information, interpret, and formulate network designs based on network operating requirements. Established Infrastructure and Network Rings relating to interconnect/cabling, power/fuses, rack/cabinet detailed drawings, equipment review and standardization. Identified best practices for successfully control change, maintenance activities and rollback procedures for all engineering/quality control processes and procedures. Overall project management and control of technical issues.

BS Telecommunications Engineering Technology – Rochester Institute of Technology

Circle of Excellence Award – interconnection of multiple provider networks into one

Single Point of Contact for CALEA Services

Engineering Project Platform

100% Migration Success – client moves to New Operator Service Platform

Uniform Translations over 15 5E Switches

Forecasting Tool for Access Planning

Other Pertinent Skills

Company Wide Network Policy, Procedures and Standards

NPA Splits and Overlays

Inventory Management Control and Cost Savings

OSHA 30 Certification



*B.S. Telecommunications
Engineering, Rochester Institute
of Technology*

*Registered Communications
Distribution Designer (RCDD)*

*Project Management
Construction Administration
WAN/LAN/WLAN Design and
Drafting
Cabling & Pathway Design and
Drafting
Outside Plant Fiber Optic Design
Trimble and IKE Surveying
GIS Mapping and Analysis*

Ron Healey

Sr. Network Infrastructure Designer

Ron has experience in the design and support of communications and network systems and infrastructure. Ron provides field surveys, design and spec writing, and construction inspection and administration services. As the manager of ECC's broadband design team he is responsible for all facets of the design process in NY, NC, SC, GA, FLA, and other states ECC is working in.

Representative projects in include:

Southern Tier Network/Expansion – Corning, NY

Design and construction management for OSP fiber optic infrastructure throughout Steuben, Schuyler, Chemung, Yates, Tioga, Tompkins, and Broome Counties connecting anchor instructions such as schools, municipalities, and 911/emergency communications. Project responsibilities include 24x7 break-fix support, field investigation, data collection, GIS and/or CAD production of communications drawings, and construction management.

Axxess Ontario – Canandaigua, NY

Engineered outside plant fiber optic cabling infrastructure for a community-wide dark fiber network. Project responsibilities included 24x7 break-fix support, field investigation, data collection, and AutoCAD production of communications drawings for joint utility ride outs and construction.

Iberdrola/Avangrid – Perry, NY

Engineered outside plant fiber optic cabling infrastructure for a dark fiber network, both strand & lash as well as ADSS design. Project responsibilities included field investigation, data collection, and AutoCAD production of communications drawings for joint utility ride outs and construction.

Other fiber infrastructure design supporting many diverse environments

Ron's experience encompasses a wide range of enterprise, government, and private businesses. These include but are not limited to NFTA, University of Buffalo, Erie County, Monroe County, Several SUNY colleges, Cornell University, Syracuse University, Fibertech, FirstLight, Empire Communications, as well as others.



Holley Keyser

Utility Coordinator

Holley Keyser brings over 30 years of operational experience in the telecommunications industry including facilities construction supervisor, repair and installation dispatch manager, and customer care supervisor. She has successfully designed, implemented, and managed a strategic construction project scheduling system resulting in the savings of two full time equivalent positions. Always on the forefront of the launch of new products and services, Holley and her teams were responsible for developing, implementing, and perfecting new processes. Holley leverages her considerable telecommunications expertise to ECC Technologies focusing on the management of construction project scheduling, utility make ready efforts and quality control.

30 years of operational experience in the Telecommunications Industry

Received Public Service Commission's "Council of Leaders Award"

Received Frontier Communications highest recognition for sales performance

Other Pertinent Skills
*Project Management
Make Ready Management
Path and Permit Administration
Construction Administration
Problem Solving
Budget Tracking
Team Building*

Southern Tier Network – Utility Coordinator (2010-2019)

Responsible to obtain pole attachment agreements for the utilities for the fiber optic network builds. Managed all aerial and underground utility applications, including submissions of railroad, state, city, and local permits across 550 mile in 8 counties of New York State. Coordinated scheduling of utility and CLEC make ready work. Responsible for reviewing, tracking utility invoices and reporting costs. In addition, Holley managed the property damage claims process.

Access Ontario – Utility Coordinator (2009-2017)

Holley acted as the Project Manager and utility coordinator for Access Ontario, a groundbreaking not-for profit development corporation, created to establish and manage the 200-mile open access dark fiber optic backbone in Ontario County, New York. Her responsibilities included coordinating the make ready process, managing construction timelines to meet customer expectations, interfacing with Access Ontario clients, arranging for construction estimates and ensuring quality control of documentation. In addition, Holley compiled monthly sales and service reports, manages the damage claims process, and verified monthly billing for the corporation.

M3SI – Rochester, NY (2011 – 2014)

Responsible to obtain pole attachment agreements for the utilities for the fiber optic network builds. Managed all aerial and underground utility applications, including submissions of railroad, state, city, and local permits across for a 240-mile private fiber optic infrastructure for Monroe County LDC.



Nathan Stahura

GIS Analyst

Nate is an integral member of ECC's Broadband Design Team, supporting numerous field surveys, GIS mapping production utilizing ESRI ArcGIS, Trimble GPS, Pictometry, LiDAR data collection applications, and AutoCAD drafting and design applications.

Representative projects include:

Southern Tier Network, Inc. – New York (2012-2019)

Responsible for field data collection and GIS exhibit preparation for 450 miles of open access dark fiber optic infrastructure through seven counties (Steuben, Chemung, Yates, Allegany, Tompkins, Tioga, and Broome). Project responsibilities included generating NYSDOT AutoCAD permit drawings for underground construction and railroad crossings, converting data between GIS and Google Earth, updating the DigSafe NY database, and identifying new underground fiber locations. This project also serves as a foundation to the Fiber to The Home (FTTH) Initiative.

Roanoke Electrical Municipal Co-Op – North Carolina (2015-2019)

Imported field data and created fiber optic route exhibit maps along a 300+ mile long infrastructure, connecting sub-stations to a centralized headquarter location making wireless internet available where it previously was not.

Piedmont Electrical Municipal Co-Op – North Carolina (2015-2019)

Imported field data and created fiber optic route exhibit maps along a 250+ mile long infrastructure, connecting sub-stations to a centralized headquarter location.

Prior to joining ECC Technologies:

Navteq LLC (2007-2011)

Updated nationwide road map database used to provide turn by turn directions to get people to their destinations. Data collected included, but not limited to, address, lane counts, speed limits, and bridge heights. Also, assisted the initial equipment testing + rollout of Bing Maps Street side Viewer.

Monroe County DES + DOT (2005-2007)

Responsible for collecting storm water outfall location data to create a map database used to identify and remediate storm water related environmental hazards.

BS Geology – SUNY Fredonia

ESRI ArcGIS / ArcInfo

Pictometry

Lidar

Trimble GPS

Google Earth

AutoCAD



Person Authorized to Enter Contract

Joseph Starks, CEO
ECC Technologies, Inc.

Firm Experience

As noted in this proposal, ECC performed the broadband inventory and created the NYS Broadband mapping website, which concluded in May 2022. As part of this process, we worked with the New York Department of Public Service to help them identify unserved and underserved locations and challenges to the FCC Broadband Data Collection (BDC) maps.

ECC has a Tier 4 license for the BDC fabric for the State of New York, including Albany County. A Tier 4 license is a type of license agreement that allows entities that are not broadband service providers or governments to access the FCC's Broadband Serviceable Location (BSL) fabric. The BSL fabric is a dataset that provides more information about the location beyond its Location ID, such as its address, geographic coordinates, and building type.

ECC has also performed FCC BDC challenges for other counties, including Broome, Tompkins and Chautauqua Counties in NY and neighboring Erie County, PA.

ECC's consultations with clients include discussion and guidance on budgets, grants, and project funding options. While supporting our clients, ECC always leads conversations on the cost of expanding broadband. Whether evaluating the cost/benefits of a particular deployment, executing risk analysis for a client, or completing a grant application, ECC's work invariably involves the twin components of understanding the project's finance and network type.

ECC assisted the NY Department of Public Service (DPS) identify 30,000 New York locations that were missing on the initial version of the BDC Fabric. ECC has also worked with other states and communities to understand their gaps in coverage and develop the required documents to submit challenges.

ECC will utilize the identified unserved and underserved addresses, along with the existing provider territories, and develop models for connecting the locations that lack quality broadband access.

As part of the GIS maps created from the collective data and the physical inventory, we will develop similar maps for Albany County. These GIS maps will clearly indicate areas where multiple ISPs provide service.

Upon award, ECC will work closely with the Albany County team to ensure that the specific goals are identified and incorporated in the RFP for broadband buildout.

References

Tompkins County, NY (2022 – present)

Contact: Katie Borgella - Commissioner of Planning and Sustainability
Phone: (607) 274-5560
Email: kborgella@tom-pkins-co.org

ECC updated unserved and underserved address data, utilizing information from the NYS Department of Public Service, FCC and dispatching an Outside Plant Designer to spot-check and validate areas of the County suspected of new broadband construction that is in progress or has been completed since the original data was gathered. ECC also researched local providers to collect information on existing broadband services to document and assess the availability of broadband service within the County.

ECC provided a list of areas identified as unserved and underserved based on this data. Detailed maps were created to identify addresses and roads that are unserved by minimum levels of broadband (under 25 Mbps x 3 Mbps) in Tom-pkins County.

ECC provided a brief written summary of the options available to the County to expand broadband access to most addresses. These options included a municipally owned network, as certain municipalities within the County were moving forward with that type of network or expressed interest in doing so.

After analyzing the options, Tom-pkins County decided to issue an RFP for Internet Service Providers (ISPs) to provide broadband buildout to unserved areas. ECC drafted the RFP and worked with County officials on revisions. As part of this process, ECC engaged ISPs to gather input on their interests in expanding coverage across the County. Issuance of the RFP lead to proposals from seven ISPs. ECC assisted with questions from ISPs, bid reviews, evaluations, and interviews, and made recommendations to the County on how to proceed with next steps.

ECC and County officials met with the NYS ConnectALL Office to discuss the bid proposals. The County Legislature is currently considering next steps in the process.



Chautauqua County, NY (2022 – present)

Contact: Mark Geise - Deputy County Executive for Economic Development
Phone: (716) 661-8900
Email: GeiseM@chqgov.com

ECC updated unserved and underserved address data, utilizing information from the NYS Department of Public Service, FCC and dispatching an Outside Plant Designer to spot-check and validate areas of the County suspected of new broadband construction that is in progress or has been completed since the original data was gathered. ECC also researched local providers to collect information on existing broadband services to document and assess the availability of broadband service within the County.

ECC provided a list of areas identified as unserved and underserved based on this data. Detailed maps were created to identify addresses and roads that are unserved by minimum levels of broadband (under 25 Mbps x 3 Mbps) in Chautauqua County.

ECC provided a brief written summary of the options available to the County to expand broadband access to most addresses. The options presented offered the best solution that would leverage a public/private partnership to address the broadband gaps in the region, including capital cost estimates and budgetary proforma.

After analyzing the options, Chautauqua County decided to issue an RFP for Internet Service Providers (ISPs) to provide broadband buildout to unserved areas. ECC drafted the RFP and worked with County officials on revisions. As part of this process, ECC engaged ISPs to gather input on their interests in expanding coverage across the County. Issuance of the RFP led to proposals from three ISPs. ECC assisted with questions from ISPs, bid reviews, evaluations, and interviews, and made recommendations to the County on how to proceed with next steps.

Once this process concluded, ECC and county officials met with the NYS ConnectALL Office to discuss the county's plans to partially fund the proposed bids. The county is currently finalizing a contract with an ISP for broadband buildout to certain areas within the county. ECC has assisted in this process as well.



Madison County, NY (2019 - present)

Contact: Mark Scimone – County Administrator
Phone: (315) 366-2201
Email: mark.scimone@madisoncounty.ny.gov

In 2019, Madison County, through a competitive bid process, contracted with ECC Technologies, Inc. to perform a County wide broadband study. This study included a broadband infrastructure inventory, a web based interactive broadband availability, and adoption survey of County residents and a GAP analysis across the County.

The results of this study were the development of a business case, and a comprehensive network solution were defined. These were starting points for the resolution of broadband issues facing County residents.

ECC's recommendation to the County was to consider the potential of a Public Private Partnership (PPP) to solve infrastructure gap issues in the County. ECC played a lead role in seeking out and developing a public private partnership between the County and last mile broadband providers. Through an RFQ process, ECC identified Empire Access, a local provider of fiber to the home internet, voice, and television services as a candidate. ECC was successful in creating an environment that allowed Madison County and Empire Access to create a partnership.

ECC worked closely with Madison County and Empire to create and submit a USDA ReConnect Grant application on behalf of the County for support in developing a network. In 2021, the USDA awarded a ReConnect Grant to Madison County to construct a 269-mile network.

This FTTX (Fiber to the Home or Premises) network will deliver broadband internet service to 1,087 unserved and underserved homes and businesses in the County.

ECC currently provides professional services to Madison County, acting as the County's advocate to oversee the ReConnect Project. We currently serve as the liaison between the County and all other entities associated with the project.

ECC is providing an independent review of the project progress and report to Madison County regarding project status, identifying potential issues and providing recommendations on how to proceed to ensure the project's success and that construction is completed on time and within budget.

Additional Information

Examples of maps that will be provided under this proposal are shown in Appendix A.

Section 3. Plan Implementation

ECC technologies commends Albany County for looking forward to the needs of their community and seeking to understand the options to serve them. We are proposing to fulfill all three parts of the stated scope of services outlined in the RFQ for Albany County.

To meet the needs of the stated Scope of Services items discussed in the following section, ECC is proposing a project that will:

- Verify unserved addresses in Albany County, utilizing the Broadband Data Collection (BDC) locations to identify the served and unserved locations throughout the county.
- Prepare a Request for Proposals (RFP) for Internet Service Providers (ISPs) to submit bids for the expansion of broadband service to unserved addresses in Albany County.
- Provide an evaluation of RFP responses.

Phase 1: Address Verification

As stated in the cover letter, ECC completed a statewide broadband inventory database in May 2022. Upon completion of the inventory, it was accurately known where the served and unserved addresses were located within the County. What is not known is what has been developed since. ECC will update the Albany County broadband inventory by dispatching an Outside Plant Designer (OSP) to spot-check and validate areas of the County suspected of new broadband construction that is in progress or has been completed since the original data was gathered.

Once ECC has received and collected this data, we will evaluate the data to determine addresses that are unserved. Maps from ESRI shape files of addresses that are unserved will be created and supplied to the County. ECC will also meet with the County Project Team to identify economic development assets, municipal facilities and infrastructure related to potential broadband initiatives.

Deliverables

- Field data collection/verification of broadband infrastructure.
- Maps and address lists of unserved addresses.
- A GIS database will be provided to show areas served by provider and technology type. The maps can be provided in several file formats.
- Provide mileage and cost estimates for broadband extensions to unserved areas.

Phase 2: RFP Preparation

ECC will meet with Albany County officials to discuss the parameters of an RFP for broadband buildout and draft an RFP for review by County officials. A critical component of this process will be determining how many areas or zones to create in Albany County for bidders to submit proposals. By creating geographic areas, this increases the chances of the County receiving multiple bids.

Deliverables

- Draft RFP for broadband buildout, working with the County on revisions until a final proposal is approved by County officials.
- Preparation of maps and address lists for inclusion in the RFP.
- Assist county officials on questions from potential bidders.

Phase 3: RFP Evaluation

ECC will review and evaluate all RFP responses. These responses will be summarized for county officials to review. Once this review is complete, ECC will provide recommendations of the proposals and assist with interview questions for ISPs.

Deliverables

- Evaluation of RFP responses, creating a comparison chart of each bid for easy reference by county officials.
- Recommendation of ISP awards based on the responses to the RFP.
- Assist County officials with the interview process.

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Section 4. Cost Proposal

The cost proposal shown below is based on an average hourly rate of \$150-\$225 based on different aspects of the project.

Address Verification: \$8,000
RFP Preparation: \$6,800
RFP Evaluation: \$12,600

Total project: \$27,400

COUNTY OF ALBANY

QUOTE FORM

REQUEST FOR QUOTE IDENTIFICATION:

Title: Broadband RFP Technical Assistance
RFQ Number: 2024-011-R

4.1 Address Verification \$ 8,000
4.2 RFP Preparation \$ 6,800
Add alternate:
4.3 RFP Evaluation \$ 12,600

COMPANY: ECC Technologies, Inc.

ADDRESS: 2136 Five Mile Line Rd.

CITY, STATE, ZIP: Penfield, NY 14526

TEL. NO.: 585-377-1850

FAX NO.: 585-381-5654

FEDERAL TAX ID NO.: 16-1520781

REPRESENTATIVE: Mark Meyerhofer

E-MAIL: mmeyerhofer@ecctec.com

SIGNATURE AND TITLE *Mark Meyerhofer* Director of Broadband

DATE 1/30/2024

Section 5. Terms and Conditions

Within 10 days of contract execution, ECC will invoice Albany County in the amount of \$5,480, which is equal to 20% of the full project amount. For the remaining balance of \$21,920, Albany County will be billed monthly. The billing schedule is based on a 6-month contract from January 2024 through June 2024, as noted in the RFQ.

Services and fees outside the scope of this agreement will be mutually agreed upon with written customer authorization. Any work requested beyond the scope of this agreement will be determined and mutually agreed to via a change order between ECC and the client.

The services and fees quoted in this proposal will remain valid for 60 days from the date on the proposal cover page.

Below are ECC's standard terms and conditions. The final contract will involve, at a minimum, the terms and conditions set forth in the Request for Proposal including the general conditions and may include those reflected in the specific proposal submitted. The content shall be the exclusive source of the Proposer's rights and remedies and shall supersede any and all prior writings, negotiations or agreements of any kind.

1. SERVICES. ECC Technologies, Inc. shall provide professional services in accordance with the agreed upon scope of work.

2. EXECUTION. This Agreement becomes effective upon signatures by authorized representatives of the Client and ECC Technologies, Inc. and upon receipt by ECC Technologies, Inc. of a signed original or facsimile transmittal. If facsimile transmittal is initially sent to ECC Technologies, Inc., Client will provide ECC Technologies, Inc. with a signed original for record as soon as practicable.

3. INITIATION. ECC Technologies, Inc. is authorized to proceed with services upon receipt of an executed Agreement or written Notice to Proceed.

4. COMPLETION/TERMINATION. This Agreement shall remain in force until completion and acceptance of the services or until terminated by mutual agreement. This contract may be terminated by the Client and/or ECC Technologies, Inc. upon 10 days' written notice. In the event of such termination, ECC Technologies, Inc. will be paid the portion of the compensation (and fixed fee, if applicable) for services performed in accordance with the scope of services under the terms of this Agreement to the date of termination together with all costs arising out of such termination.

Continuing Service Agreements shall be reviewed annually for rates and shall remain in force until terminated in writing by either party, or otherwise stipulated contractually.

5. STANDARD OF CARE. Services provided by ECC Technologies, Inc. under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. ECC Technologies, Inc. makes no warranty or guaranty, either express or implied.

6. INDEPENDENT CONSULTANT. ECC Technologies, Inc. is and shall be at all times during the term of this Agreement an independent consultant and not an employee or agent of the Client.

- 7. COMPLIANCE WITH LAWS.** ECC Technologies, Inc. will endeavor to comply with Federal, State, and local laws and ordinances applicable to the services to be provided under this Agreement. State Laws of the project site shall apply.
- 8. PAYMENT:** ECC Technologies, Inc. invoices monthly. Payment is due within 30 days. ECC Technologies, Inc. reserves the right to impose a 1.5% monthly finance charge for past-due accounts.
- 9. OWNERSHIP OF DOCUMENTS.** Drawings, specifications, reports, programs, manuals, or other documents, including all documents on electronic media, prepared under this Agreement are instruments of service and are, and shall remain, the property of ECC Technologies, Inc and the Client. ECC Technologies, Inc. will retain all common law, statutory, and other reserved rights, including the copyright thereto. ECC Technologies, Inc. shall not be held liable for reuse of documents or modifications thereof by the Client or its representatives for any purpose other than the original intent of this Agreement, without written authorization of and appropriate compensation to ECC Technologies, Inc.
- 10. INSURANCE.** ECC Technologies, Inc. will maintain the following levels of insurance during the term of this Agreement.
- a. Worker's Compensation (and Employer's Liability Insurance) — as required by applicable state statute.
 - b. Commercial General Liability — \$1,000,000 per occurrence for bodily injury, including death and property damage, and \$2,000,000 in the aggregate.
 - c. Automobile Liability — minimum of \$1,000,000 combined single limit for bodily injury and property damage.
 - d. Professional Liability (E&O) — \$1,000,000 each claim and in the aggregate.
- 11. INDEMNIFICATION/HOLD HARMLESS.** ECC Technologies, Inc. shall indemnify and hold harmless the Client and its employees from any liability, settlements, loss, or costs (including reasonable attorneys' fees and costs of defense) to the extent caused by ECC Technologies, Inc.'s negligent acts, errors, or omissions in services provided pursuant to this Agreement. Provided, however, that if any such liability, settlements, loss, or costs result from the concurrent negligence of ECC Technologies, Inc. and the Client, this indemnification applies only to the extent of the negligence of ECC Technologies, Inc.
- 12. NON-SOLICITATION.** During the Term and for three (3) years after any termination of this agreement, the parties will not directly or indirectly, on party's own behalf or in the service or on behalf of others, in any the County to induce or attempt to induce any officer, director, or employee to leave the Company.

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Appendix A – Mapping Examples

At the heart of project components are the development of maps. These representations of the areas represent the baseline for broadband assessment. Whether in reporting, in an online environment, or in simple discussions, mapped data conveys a significant level of information in a manner like no other.

In this section, ECC will provide some examples of maps, and include summary overviews of each one. These are maps extracted from actual projects. Obviously, provider names are redacted, and the shapes of the areas are altered. The maps, as shown, lack detail in order to place them in a printed format in the proposal.

Albany County will receive a full GIS database for its use in the development of highly detailed maps for use by Staff. In its projects, ECC develops a significant number of maps to meet client needs. Only a few of these maps are included in this section as reference points for discussion with the County.

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Example 1. Telephone Company Territories, Facilities and Fiber.

The first example shown below represents the result of secondary research combined with outside plant work identifying the boundaries of the Incumbent Local Exchange Carriers (ILECs). This map includes fiber optic routes owned by the incumbent carriers, as well as the location of Central Offices (COs) serving the study area.

This is an excerpt from an actual project. However, for convenience and clarity of presentation, the fiber routes, as inventoried and reproduced on the map, are indicated as belonging to a single provider. In fact, there are multiple fiber owners as indicated.

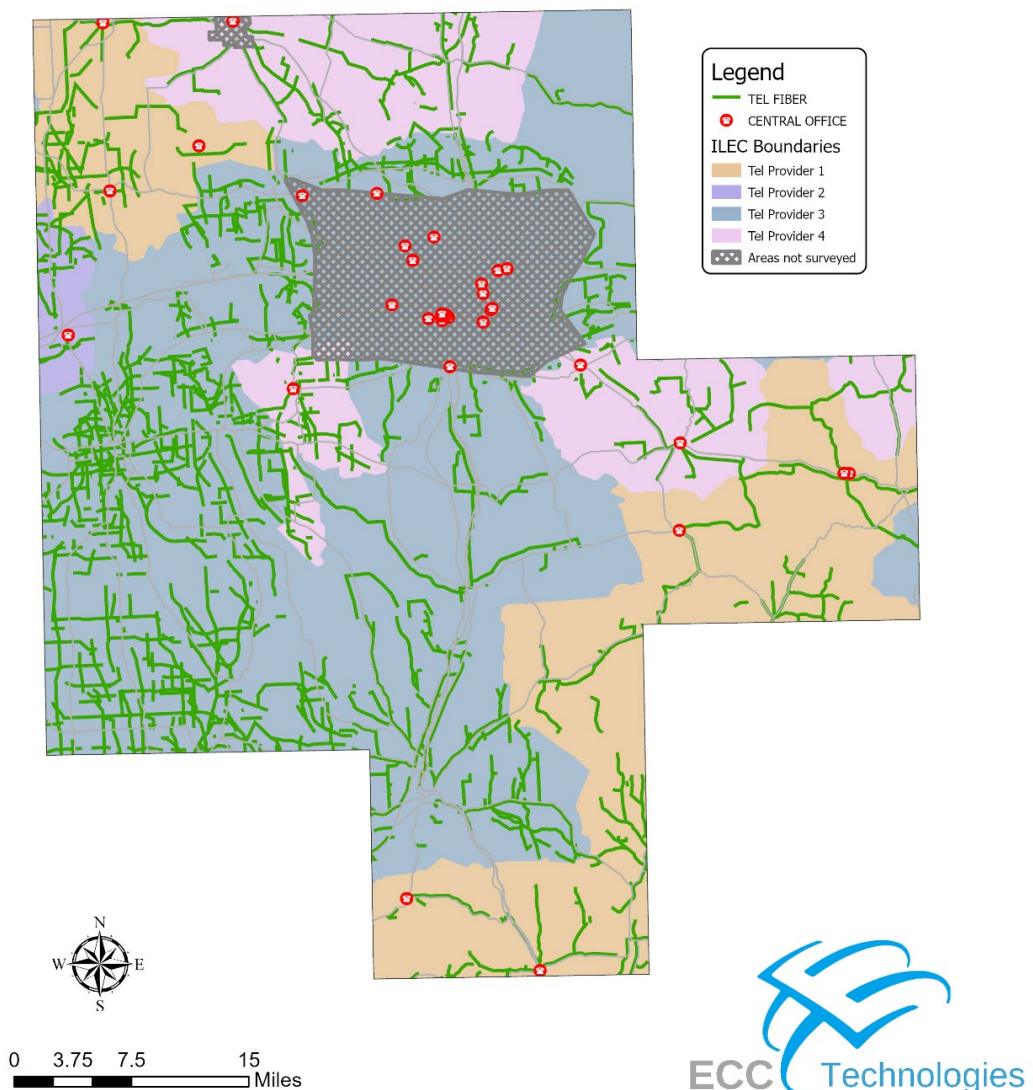


FIGURE 2 EXAMPLE MAP – INCUMBENT TELCOS

Example 2. CATV Service Territories, Coaxial & Fiber Optic Cable

The map shown below indicates the cable provider service territories. The map further indicates the location of both coaxial and fiber network assets. In this example, the fiber owners are not individually identified nor are field equipment locations.

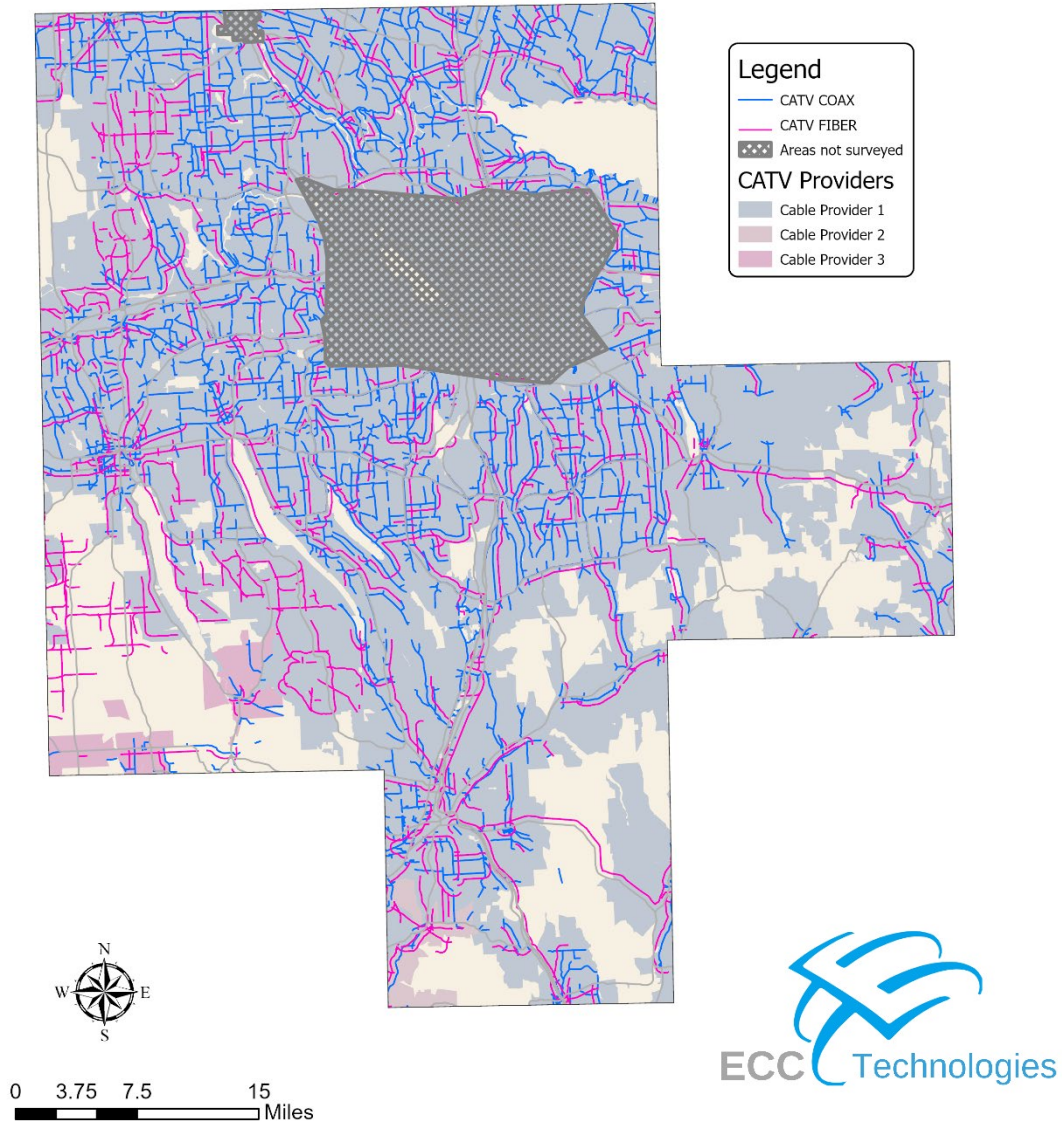


FIGURE 3 EXAMPLE MAP - CATV TERRITORIES AND NETWORK

Example 3. Areas with No Infrastructure

The map in the next figure indicates roads driven within the study area where no Broadband infrastructure was observed. These example maps are not as detailed as the final GIS maps to be provided to the County at the conclusion of the study. However, the map does indicate information about roads and address locations which lack access to Broadband infrastructure.

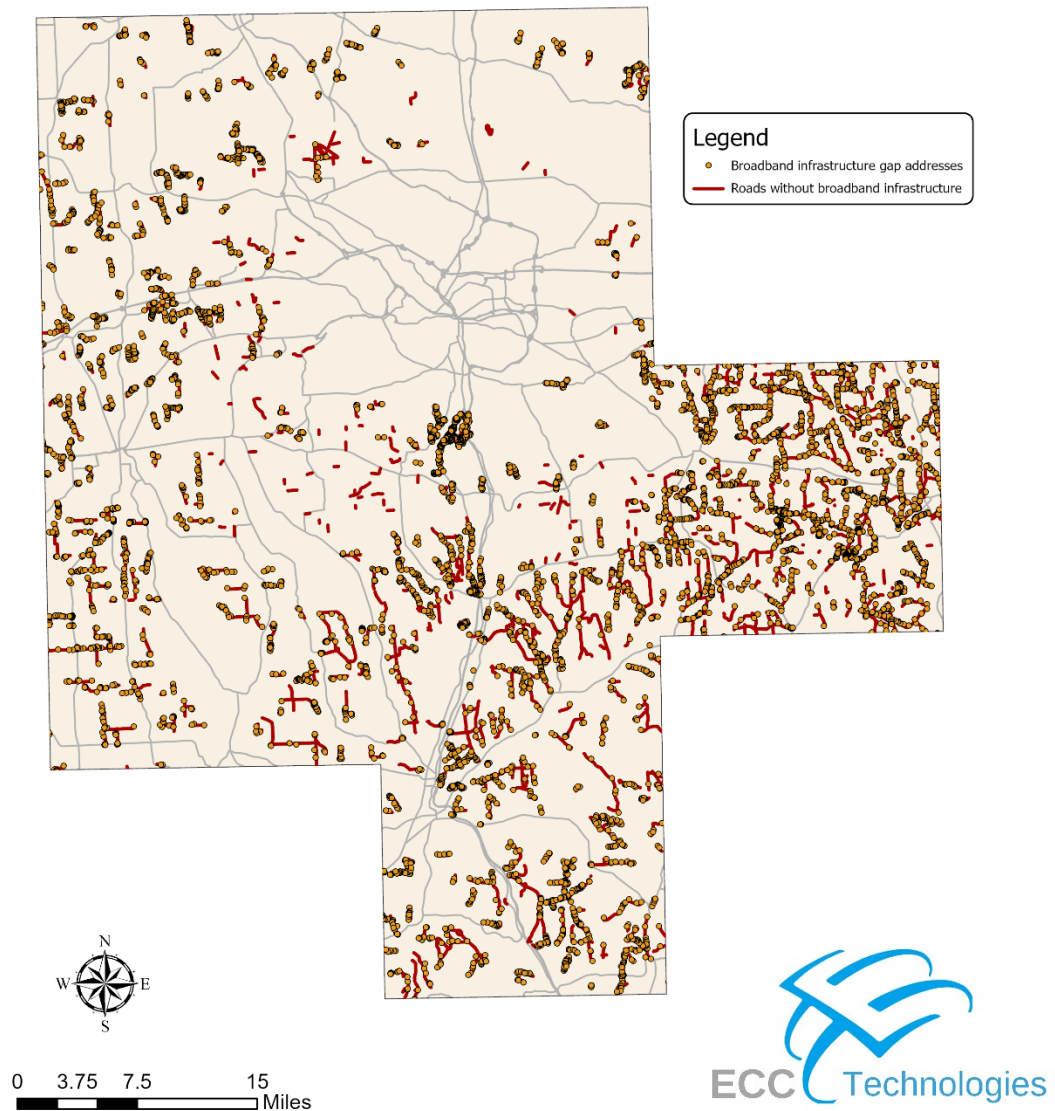


FIGURE 4 EXAMPLE MAP - UNSERVED LOCATIONS

Example 4. All Fiber Assets

In this sample map, all inventoried Broadband infrastructure is detailed. This type of map would typically include assets owned by the incumbent providers, by middle mile providers, municipal networks, competitive local exchange providers, (Fiber to the Premises) FTTP companies and more.

This type of map is useful for analysis of fiber assets beyond the local incumbent that can be utilized for (Fiber to the Home) FTTH deployments where it is lacking, it also can show where other networks exist in the area by Competitive Local Exchange Carriers (CLEC) providers.

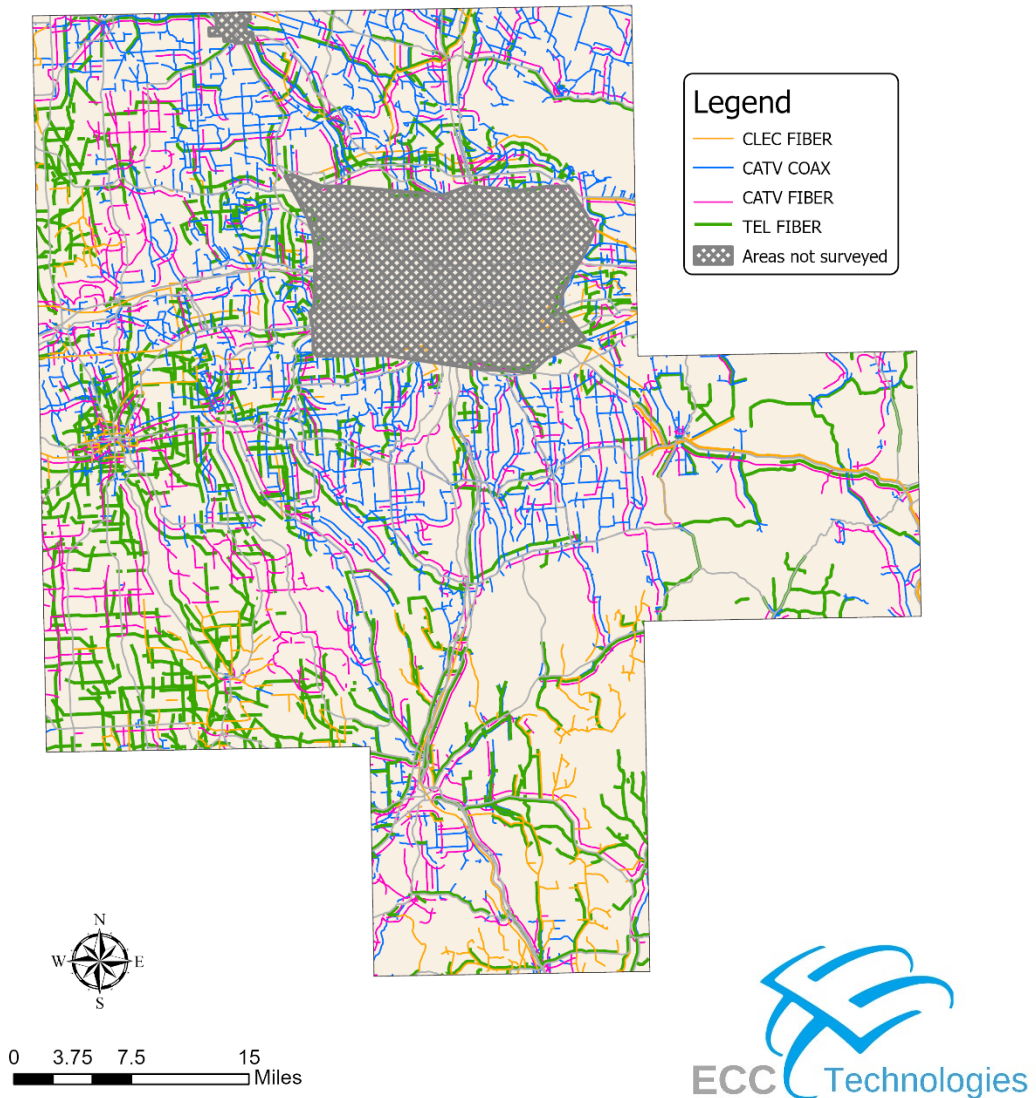


FIGURE 5 EXAMPLE MAP - INFRASTRUCTURE SUMMARY