

RE: BUDGET AMENDMENT FOR A BROADBAND FEASIBILITY STUDY

Background:

In April, City Council approved an ordinance allocating funds to be paid to Springfield Utilities to conduct a Request for Qualifications (RFQ) process for a broadband feasibility study. This allocation was to cover the City of Nixa's share of the total costs. Springfield Utilities received several proposals from multiple companies and provided those to the Regional Broadband Initiative (RBI) Board. The RBI Board evaluated the proposals and selected the Broadband Group to conduct the study. The Broadband Group provided the attached scope of work, which was agreed on by all parties of the RBI board.

Analysis:

The total cost for the feasibility study is \$291,860. The same formula was used to calculate the city of Nixa's costs as was used for the RFQ process. This formula is based on the number of addresses within the city limits. The City of Nixa's portion of the cost share is 10.62% of the total costs. Therefore, the City of Nixa's portion is approximately \$31,000.

Recommendation:

Staff recommends approval of the ordinance allowing for a budget amendment in the amount of \$31,000 to cover the City of Nixa's cost share portion of the feasibility study. Staff also recommends these funds be allocated from ARPA funds that the City has received.

MEMO SUBMITTED BY:

Jimmy Liles | City Administrator

jiles@nixa.com | 417-725-3785

AN ORDINANCE OF THE COUNCIL OF THE CITY OF NIXA AMENDING THE 2022 ANNUAL BUDGET TO APPROPRIATE FUNDS FOR THE CITY'S PORTION OF THE FEASIBILITY STUDY FOR REGIONAL BROADBAND.

WHEREAS Section 67.040 RSMo. provides that after a budget has been approved no increase in the revenues or expenditures from any fund shall be made unless the governing body adopts a measure setting forth the facts and reasons making the increase necessary and authorizing the increase; and

WHEREAS Section 8.7 of the City Charter authorizes the City Council to amend budgeted revenues and expenditures upon the request of the City Administrator; and

WHEREAS the City Administrator has requested a budget amendment as reflected in "Council Bill Exhibit A" and for the purposes referenced therein; and

WHEREAS the City Council desires to amend the City's 2022 budget for the purposes identified herein.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NIXA, AS FOLLOWS, THAT:

SECTION 1: The City of Nixa's 2022 Annual Budget is hereby amended in the accounts and the amounts as shown on "Council Bill Exhibit A," which is attached hereto and incorporated herein by this reference.

SECTION 2: City Council finds that the budget amendment enacted by this Ordinance has been recommended by the City Administrator. The City Administrator is directed to cause the appropriate accounting entries to be made in the books and records of the City to reflect the budget amendment enacted by this Ordinance.

SECTION 3: This Ordinance shall be in full force and effect from and after its final passage by the City Council and after its approval by the Mayor, subject to the provisions of section 3.11(g) of the City Charter.

ADOPTED BY THE COUNCIL THIS ____ DAY OF _____, 2022.

ATTEST:

PRESIDING OFFICER

CITY CLERK

APPROVED BY THE MAYOR THIS _____ DAY OF _____, 2022.

COUNCIL BILL NO. 2022-093

ORDINANCE NO. _____

47
48
49
50
51
52
53
54
55
56
57

MAYOR

APPROVED AS TO FORM:

CITY ATTORNEY

ATTEST:

CITY CLERK

City of Nixa, MO
Budget Amendment

| <u>Budget Amendment Amount</u> | <u>Fund</u> | <u>G/L Description</u> | <u>G/L Line #</u> | <u>Revenue Source</u> |
|--|--------------|---------------------------|-------------------|---------------------------|
| \$31,000.00 | 10 - ARPA | Transfers Out | 10-111-5490000 | Current |
| \$31,000.00 | 11 - General | Transfers In – ARPA funds | 11-100-40111 | |
| \$31,000.00 | 11 - General | Professional Fees | 11-100-5160000 | |

Explanation: To amend the current budget of the City of Nixa to appropriate funds for a cost share in a Broadband Feasibility Study.

This proposed Budget Amendment has been approved and requested by the City Administrator, pursuant to City Charter section 8.7.

Jimmy Liles, City Administrator

Authorized by Passage of Ordinance No. _____

Date of Passage: _____

Total Budget Amendments by Department Year to Date:

| | |
|------------------------|-----------------------|
| Electric | \$285,700 |
| Water | \$1,138,977 (net) |
| Wastewater | \$385,107 |
| ARPA | \$40,000 |
| Admin | \$22,734.47 (net) |
| Legal | \$57,361 |
| Economic Development | \$13,000 |
| Police | \$110,329 |
| Street | \$289,175 |
| Park | \$47,500 |
| Planning & Development | |
| TOTAL | <u>\$2,389,883.47</u> |

THE BROADBAND GROUP



Rural Broadband Initiative

Scope of Services

Rural Broadband Network Feasibility Study

(RFQ 0000071052)

Prepared by:
The Broadband Group

Submitted: August 18, 2022

PROPOSAL COVER SHEET

| | |
|------------------------|--|
| Name of Vendor: | The Broadband Group |
| Address: | 900 S. Pavilion Center Drive, Suite 155 |
| City / State / Zip: | Las Vegas, NV 89144 |
| Phone: | (702) 405-7000 |
| Web Address: | broadbandgroup.com |
| Primary Contact: | Jeff Reiman, President |
| Primary Contact Email: | jreiman@broadbandgroup.com |
| Response Coordinator: | Robin Estrada |
| Coordinator Email: | restrada@broadbandgroup.com |

BUSINESS INFORMATION

COMPANY OVERVIEW – THE BROADBAND GROUP

At The Broadband Group, connectivity extends beyond technology. It is about understanding how people live, how businesses work, and how communities thrive.

The Broadband Group (TBG), founded in 1997, is a full-service Technology and Telecommunications Advisory Firm focused on developing unique plans, specifications, and deployment strategies for the delivery of next-generation IP Voice, Video, Data, and Telemetry services for Master Planned Communities, Municipalities, Utility Companies, Broadband Service Providers, and Community Anchor Institutions. TBG is committed to creating value for clients through the formation, implementation, and operation of advanced broadband networks, designed to benefit the social well-being of the communities we serve. TBG empowers communities and municipalities to take full advantage of technology planning possibilities. We provide strategic financial planning, network design, regulatory analysis, and construction management oversight throughout the lifespan of a communications infrastructure project.

For over twenty-five (25) years, TBG has been at the forefront of ongoing issues and changes to regulatory policies, local governance, U.S. Federal Government Grant/Loan and Appropriations opportunities, and urban development/design policies. TBG's experienced and structured approach often drives reform and innovation, creating opportunities while exploring, developing, and implementing previously unidentified strategies for our clients. TBG creates broadband platforms that lead to economic development and growth, improved access to healthcare, and the expansion of educational and remote work opportunities. TBG was also a shareholder in Nevada Broadband Networks, co-recipient of a \$19.6MM Broadband Stimulus Grant, which was successfully sold to Las Vegas-based Switch Communications in February 2016.

TBG has developed Technology Master Plans™ and provided broadband planning advice for clients such as the cities of Ontario and Long Beach, CA, as well as large scale, Master Planned Communities such as Disney's Celebration, Forest City Stapleton, Summerlin (Howard Hughes Corporation), MeadWestvaco's Nexton, Metro Development Group, YarrowBay Holdings, Brambleton, and Newland Communities nationwide. TBG also has several utilities and municipalities as clients including Huntsville Utilities (Huntsville, AL), City Utilities (Springfield, MO), Roanoke Electric Cooperative (Aulander, NC), and Colorado Springs Utilities (Colorado Springs, CO).

In addition, TBG Network Services (TBGNS) is a wholly-owned subsidiary of The Broadband Group and is engaged in network engineering, design, and construction oversight for large-scale fiber projects including, Huntsville Utilities, City Utilities of Springfield, MO, and Roanoke Electric Cooperative. As part of these assignments, TBGNS leads network design decisions and material procurement processes with multiple industry vendors and contractors.

Headquartered in Las Vegas, NV, TBG holds offices in Irvine, CA; Denver, CO; Huntsville, AL; Springfield, MO; Colorado Springs, CO; and Raleigh, NC.

EXPERIENCE & QUALIFICATIONS

Cindy Reiman

Co-Founder & Chief Financial Officer



A founding Partner of the Firm, Cindy Reiman is responsible for financial management, investment strategies, personnel management, human resources, employees' benefits, payroll, and corporate operational policies of The Broadband Group and TBG Network Services.

Prior to joining The Broadband Group, Ms. Reiman served in clinical and supervisory positions as an Emergency and Critical Care Registered Nurse in the United States and Australia. Ms. Reiman also provided management support to various philanthropic organizations including the Sacramento Children's Home, as well as other public and private non-profit organizations. She has served as Board

President of local chapters of Florida, Georgia, and California Parent-Teacher Associations. She served as finance chair on the Board of Trustees for Planned Parenthood of the Rocky Mountains and is currently on the Nevada Advisory Board for Touro University, a private, non-profit higher and professional education institution in Henderson, Nevada.

At The Broadband Group, Ms. Reiman is a member of the Firm's Executive Committee and serves as an Owner/Officer on the affiliated TBG Network Services Inc.

Education

Samuel Merritt University – School of Nursing
Oakland, California

California State University, Hayward
Hayward, California

CCRN – The Alfred Hospital
Melbourne – Victoria
Australia

PROFESSIONAL AFFILIATIONS

California Nurses Association
Touro University of Southern Nevada Advisory Board
Urban Land Institute

Jeff Reiman President



Jeff Reiman brings a comprehensive understanding of technology, capital market structure, and entrepreneurial leadership to assist clients in developing broadband deployment strategies for cities, utilities, and large-scale development projects. As President, Mr. Reiman leads The Broadband Group (TBG) and TBG Network Services (TBGNS) in representing communities to identify achievable wired and wireless broadband strategies. TBG's influence and planning expertise has been instrumental in the creation of successful fiber broadband deployments in markets throughout the nation.

Prior to joining The Broadband Group, Mr. Reiman worked in the Boston office of Credit Suisse investment bank, on the Equities Sales and Trading Floor. Additionally, he has served on the International Sales & Marketing Team of Wave7 Optics, a Fiber-to-the-Home equipment supplier, managing the Mexico, Canada, and Caribbean regions.

Mr. Reiman began his career at the DC headquarters of a Presidential Campaign and is a graduate of Harvard University with a degree in Government. He currently serves as President of the Harvard Club of Nevada.

Education

Bachelor of Arts – Government
Harvard University
Cambridge, Massachusetts

PROFESSIONAL AFFILIATION

Urban Land Institute (ULI) – Lifestyles Residential Development Council
Harvard Club of Nevada - President

Patrick Thibeault

Chief Technology Officer



Patrick Thibeault serves as The Broadband Group's Senior Vice President and Chief Technology Officer after a notable ten-year career with Google Fiber and Alphabet. As a proven industry leader and visionary, he brings advanced design, engineering, and planning acumen to the TBG portfolio.

In his work as Technical Program Manager at Google Fiber, Mr. Thibeault was essential to the development of the Huntsville Utilities fiber network expansion and "Utility Smart Grid Model" initiative in Alabama. He also provided instrumental support for fiber-optic network acquisitions and leases in other municipalities.

Mr. Thibeault has a long history of successful collaboration and negotiation with Internet Service Providers in the U.S. and Asia Pacific Region. In his role with Google's Next Billion Users team, he utilized wireless technologies to bring the Internet to new and emerging markets in Southeast Asia through partnerships with business development teams and third-party Wi-Fi providers.

Mr. Thibeault began his career building, operating, and maintaining networks with the United States Marine Corps, IBM, Severn Trent Laboratories, and DoubleClick. In his role with The Broadband Group, Mr. Thibeault leads all engineering, design, and deployment activity for TBG Network Services, as well as The Broadband Group's Community Development and Municipal planning practice.

Additionally, Mr. Thibeault serves as Vice President of The Romito Foundation, a non-profit organization supporting the local Duchene Muscular Dystrophy community, which aims to improve the quality of life of those afflicted with DMD.

Education

Bachelor of Science, Computer Networking
Regis University
Denver, Colorado

Associate of Science – Data Processing Technologies
Hawaii Pacific University
Honolulu, Hawaii

PROFESSIONAL AFFILIATIONS

United States Marine Corps
The Romito Foundation

Frank Newsom *Sr. Vice President of Network Operations*



Frank Newsom, The Broadband Group's Senior Vice President of Network Operations, has more than 30 years of experience in the telecommunication industry. His expertise focuses on managing, developing, and building telecommunications and fiber-based infrastructure for Tier 1 communications companies such as Comcast, AT&T, Verizon, and others.

Having an extensive history of working in Huntsville, Alabama since 1993, Mr. Newsom now manages the construction oversight of Huntsville Utilities' 1,000-mile network expansion project. Google Fiber serves as the network's Anchor Tenant under the TBG-developed "Utility Lease Model" structure.

Mr. Newsom's background includes supervising both aerial and underground construction for large-scale projects, including hands-on underground and aerial applications surrounding a fiber-based infrastructure platform.

Education

Calhoun Community College
Huntsville, Alabama

Certifications

OSHA 10 Certified
Confined Space Certified

John McKinney *Director of Engineering*



John McKinney brings two decades of field experience that includes fiber network and copper network design, field installation of fiber, and FTTH projects for AT&T and Verizon. John has served as a designer and engineer for highly complex fiber projects. He has coordinated and served as a single point of contact for client project managers, engineers, and construction teams.

Mr. McKinney's experience includes network architecture, network design, telecommunications records, outside plant engineering, aerial design including pole loading and analysis, process design, and project management. He has coordinated and served as a single point of contact for client project managers, engineers and construction teams and provides optimum customer service to scope. He has reviewed financial statements, activity reports, and other performance data to measure productivity and goal achievement to determine areas needing cost reduction and process improvements.

Education

Bachelor of Science – Biological Science
Colorado State University
Fort Collins, CO

Darren Snead *Director of Network Operations*



Darren Snead, Director of Network Operations, has worked in the communications industry for over 26 years. Darren is a subject matter expert in all aerial and underground construction practices, policies, and procedures. Darren currently leads operations for TBG Network Services in Springfield, MO on the City Utilities city-wide fiber expansion project. The 1,100 mile fiber build, with CenturyLink as the network's anchor tenant, is scheduled to be completed in 4Q22, months ahead of schedule.

His background prior to joining TBG Network Services includes building and managing fiber-based infrastructures for companies such as Charter, WOW, and Verizon. Darren most recently worked with Charter Communications, as well as WOW in Huntsville, Alabama. Darren has managed both aerial and underground crews in network upgrades, new builds, and maintenance of current fiber infrastructures and also possesses a strong background in project and materials management.

Education

Alabama Technical College
Gadsden, Alabama

Certifications

SCTE Installation
NCTI Installation

Connie Walker *Operations Manager*



As Operations Manager, Connie Walker facilitates all aspects of administration and project responsibilities in relation to the City Utilities fiber network expansion project in Springfield, MO on behalf of TBG Network Services.

Having more than 20 years of senior management experience in telecom, Connie provides support for: engineering, construction, and finance personnel. This includes materials management as well as daily interaction with clients and vendors to ensure successful project implementation.

Connie is a graduate of Ottawa University, with a Bachelor of Business degree focusing in Management. Prior to joining TBG Network Services, Connie's experience included: strategic planning, client management, contracts, human resources, service delivery, service assurance, and project coordination.

Education

Bachelor of Business – Management
Ottawa University
Overland Park, Kansas

Andrew Hurry

Senior Financial Consultant



As Partner for Britehorn Partners, Andrew Hurry provides services as The Broadband Group's Strategic Partner and Senior Financial Consultant. Britehorn Partners is an M&A Firm that specializes in Technology, Media, and Telecommunications.

Mr. Hurry has over twenty-five years of high-level business experience, including corporate business development, financing, and business operations. His recent engagements in the U.S. have included strategic consulting and business development for Fiber and Telecommunications companies, including Huntsville Utilities with Google Fiber, City Utilities & CenturyLink, DAS wireless services, and regional financial models for municipalities and larger master-planned

developers.

Mr. Hurry drafted the Financial Models for the Huntsville Utilities and City Utilities – Anchor Tenant Network Agreement(s) in place today. His relevant experience includes:

- Strategic Financial Consultant to The Broadband Group, providing business advice and detailed financial analysis related to access and middle mile networks for dark fiber and lit services. Clients include developers, real estate owners, municipalities, and utilities across the U.S.
- Huntsville Utilities – Strategic financial planning, financial model development, and negotiation with Google Fiber as an Anchor Tenant providing residential services to 100,000 homes.
- City of Ontario, CA – Financial Due Diligence of Frontier Communication's acquisition of Verizon's fiber assets.
- Splice Communications – Financial Due Diligence related to the potential acquisition of a CLEC in California.
- \$32M sale of a wireless services company involved in the design, development, and construction of small-cells and DAS systems for National Carriers.
- Led project for the development of financial and strategic plan and financing for the construction and operation of a \$200M fiber and wireless telecommunications company to rural under-served markets in Germany.
- Prepared financial models and investment projections for the submission of a \$40M ARRA government grant application to build out broadband networks and service for remote and unserved populations across the U.S.
- Engaged to develop compelling business case and financial model for \$300M grant application under RUS BTOP Program. Defined strategy to attract and close strategic equity investment of \$60M and oversee definition of preliminary network maps for WiMax deployment in underserved Native American reservations and rural communities across the U.S.

Education

Master of Business Administration – University of London
London, United Kingdom

Financial Registrations

FINRA Series 7, 24, 28, 63

Keller & Heckman LLP **National Communications Law Practice**

Keller and Heckman LLP (K&H) has had, for over 50 years, an elite national communications law practice based in Washington, DC. K&H works with scores of national, regional, state, and local authorities, associations, agencies, and other entities in more than 40 states on a wide range of communications and/or communications infrastructure issues. K&H has deep knowledge and decades of hands-on experience with legal services of the kind described in this RFP.



Jim Baller will serve as project leader for K&H. The Fiber to the Home Council (now the Fiber Broadband Association) has observed that he is “widely regarded as the nation’s most experienced and knowledgeable attorney on public broadband matters.”

Jim Baller and the K&H legal team will assist with two items on this City of Springfield/Regional Broadband Initiative: Item 2 – Policy Analysis and Item 6 – Utility Formation Study. During the last several years, K&H has been working with the Missouri Alliance of Municipal Utilities and the Missouri Power Utility Alliance to analyze and respond to legislation that could adversely affect its members. K&H has also helped clients identify, understand, apply for, and comply with the terms and conditions of broadband stimulus grants or loans.

The firm’s telecommunications team advises clients on fixed, mobile, and broadband wireless matters. It represents infrastructure owners of all kinds in pole, conduit, and other siting matters. It advises and represents clients in a wide range of proceedings, including FCC rulemakings, regulatory compliance and enforcement actions, spectrum acquisitions, and funding competitions.

RVA, LLC. **Market Research & Consulting Firm**

RVA is a privately-owned market research consultancy with a nationally respected brand identity. RVA possesses decades of experience in diverse market research services to a wide range of firms, from Fortune 100 corporations to promising start-ups. RVA is a recognized national leader for advanced market research within the fiber broadband industry.

RVA regularly works with numerous related entities in this field, including the North American Fiber-to-the-Home (FTTH) Council, vendors such as Verizon, Corning, and Clearfield, and is frequently sought for expert opinion in industry and national publications.

For work in the FTTH field, RVA Principal, Michael Render, received the 2005 Cornerstone Award from Broadband Communities Magazine and the 2007 Star Award from the North American FTTH Council. As part of its due diligence process, the FTTH Council had RVA’s work peer-reviewed in 2013, and RVA was praised for its thorough methodology. In addition to national and regional assignments, RVA has conducted over 30 studies involving real estate or community-related projects, including communications research for individual communities or housing developments.

RVA Principal, Michael Render, holds an MBA from the University of Tulsa. Prior to forming RVA in 1990, he was Market Research Director and then Marketing Director for an international consumer electronics company. His extensive professional history includes market research, advertising, public relations, and international sales.

PROFESSIONAL REFERENCES



City of Long Beach, CA – TBG was first engaged in 2016 by the City of Long Beach, California to develop its **Fiber Master Plan** initiative addressing the **Market Research, Engineering and Design Assessment, Financial Modeling, and Operational Metrics** related to the development of a long-term strategic Broadband Access Plan for the City. TBG has been approved by the Long Beach City Council to move forward with the implementation of the Fiber Master Plan.

Lea Eriksen
Director of Technology & Innovation
City of Long Beach
Lea.Eriksen@longbeach.gov
(562) 570-7773

Eric Lopez
Director of Public Works
City of Long Beach
Eric.Lopez@longbeach.gov
(562) 221-6431



City of Ontario, CA – The City of Ontario engaged TBG in 2014 to **Assess, Design, and Financially Model the Operational Structure and Technical Requirements** for the citywide “OntarioNet” broadband initiative. TBG also provided guidance in developing a **Commercial Technology Survey**, used to evaluate the attitudes and perceptions of broadband service within the City. TBG has defined and detailed Conduit Specifications, as well as made recommendations regarding appropriate intra-city department structure and

personnel requirements related to network management. TBG continues to support the City of Ontario in their high-speed Internet initiative by providing industry guidance and counsel.

Jimmy Chang
Director of Innovation, Performance, & Audit
City of Ontario
JChang@ontarioca.gov
(909) 395-2033

Scott Ochoa
City Manager
City of Ontario
SOchoa@ontarioca.gov
(909) 395-2555



City of Huntington Beach, CA – Engaged by the City of Huntington Beach in 2020, TBG provided **Broadband Strategic Guidance & High-Level Scenario Analysis** which addressed **Overall Technology Planning, a Facilities Assessment, and a Financial Analysis**. After conducting interviews and educational sessions with City staff (i.e., City Manager’s Office, Public Works, Police, Administrative Services, etc.), TBG presented findings and recommendations to the city’s Smart Cities committee on deployment strategy, access condition, and general direction of infrastructure

elements required for deployment of wired and wireless broadband facilities by the City and its Service Providers. TBG also provided high-level financial guidance, considerations, and preliminary estimates for potential capital expenditure, revenue potential, and ROI on different broadband investment scenarios.

Sean Crumby
Director of Public Works
City of Huntington Beach
Sean.Crumby@surfcity-hb.org
(714) 374-5348

John Danka
Senior I.T. Manager
City of Huntington Beach
John.Danka@surfcity-hb.org
(714) 960-8893



HUNTSVILLE UTILITIES
ELECTRICITY • NATURAL GAS • WATER

Huntsville Utilities - Engaged TBG in 2013 to conduct a **Feasibility Study and Implementation Plan** related to telecommunications and utility control infrastructure for the municipally owned utility. TBG defined requirements related to

expanding the scale of existing infrastructure, supporting a fully-integrated broadband network, and serving public facilities. In addition to infrastructure and process review, TBG conducted citywide **Market Research**, inclusive of an **Institutional Market Study and Take Rate Regression Analysis** throughout HU's serving footprint. **TBG Network Services (TBGNS)** was tasked with managing the construction oversight and quality assurance monitoring of the network. The Huntsville Network will pass 108,000 residential units in the Huntsville market - a landmark achievement. In 4Q2020, Huntsville Utilities completed a full build-out of the Huntsville Utilities' Fiber Transport Network, with Google Fiber serving as the network's Anchor Tenant under the Utility Lease Model™ structure developed by TBG.

Wes Kelley
President/CEO
Huntsville Utilities
Wes.Kelley@hsvutil.org
(256) 535-1200



City Utilities (Springfield, MO) – Engaged by City Utilities in 2017, TBG developed a **Fiber Network Expansion Plan** which addressed **Market Research, Engineering and Design Assessment, Financial Modeling, and Evaluation of Internal Operational Metrics** for the municipally-owned utility. In August 2019, with TBG's support, City Utilities announced a 1,100-mile network expansion initiative that, when complete, will pass more

than 105,000 homes and offer Gigabit services to homes and businesses via Anchor Tenant Quantum Fiber. By implementing the proven TBG Utility Lease Model™, there will be no increase in utility customer rates. The initiative also marked the second time that a qualified Broadband Internet Service Provider was able to competitively enter a new market that was formerly served only by established Incumbent Providers.

Jeff Bertholdi
Director
SpringNet
JBertholdi@springnet.net
(417) 831-8359



Colorado Springs Utilities (Colorado Springs, CO) – Colorado Springs Utilities (CSU) is the latest and largest municipally-owned utility to implement The Broadband Group's (TBG) **Utility Lease Model™**. CSU first engaged TBG in 2020 to conduct an **Institutional Broadband Network Analysis & Expansion Feasibility Assessment**, later implementing TBG's Utility Lease Model to fund citywide expansion of

advanced fiber infrastructure for utility operations without increasing rates for utility customers. The cost of the utility's investment is significantly offset by a non-exclusive lease of excess bandwidth in the fiber network to an Internet Service Provider (Ting) that delivers gigabit Internet to residents and businesses.

Brian Wortinger
Manager, Fiber Optics & Telecommunications
Colorado Springs Utilities
BWortinger@csu.org
(719) 668-6753

PROJECT SCOPE

RURAL BROADBAND NETWORK FEASIBILITY STUDY

1. **Technology & Trends Review**

Description: Access to advanced connectivity increasingly shapes the decisions of where we live, work, shop, and socialize. The technologies that are now considered necessary to daily living require ubiquitous access to high-performance wireless and wired (fiber) infrastructure. For over twenty-five (25) years TBG has helped to shape and lead the telecommunications industry in creating sustainable business plans supporting investments in fiber broadband infrastructure in markets nationwide.

Leveraging decades of best practices and lessons learned, TBG will present a forward-thinking overview of the wired and wireless broadband industry, emerging technologies, and realistic capabilities as it relates to the implementation of large-scale fiber networks. In addition to a written summary as part of the Final Report, TBG will lead in-person planning and training sessions with RBI stakeholders. Content and information would include:

Understanding Fiber

- Fiber vs. Coax vs. Copper
- Defining Bandwidth & Gigabit+ Speeds
- Fiber-to-the-Home (FTTH) Increases Property Value
- Wireless (cellular & Wi-Fi) as a Complimentary Technology
- Leveraging Dark Fiber
- Various Network Architectures (Centralized vs. Distributed Split)

Application for Rural Broadband Initiative

- Business Case Options
- Network Design Priorities
- Construction Considerations (Aerial vs Underground)
- Performance Measurements & Industry Standards
- Typical Design Considerations
- Poles & Make Ready Engineering

2. **Policy Analysis**

Description: TBG, with its partner Keller & Heckman LLP (K&H), will review and analyze the current applicable federal and Missouri communications laws, policies, and regulations governing the proposed public network and the services to be offered, including all applicable federal and state communications regulatory compliance requirements. The analysis will contain a “red flag” review of the key legal and regulatory requirements as well as pending future legal developments that could impact the RBI. While the analysis will focus on communications laws, it will also identify at a high level other key legal and regulatory non-communications issues that may need to be addressed as part of the project, including bond and tax issues.

Based on this analysis and working with members of the RBI, K&H will make recommendations as to how best to structure the RBI’s potential approach to comply with applicable legal and regulatory requirements, including positioning the RBI to address legislative changes and funding opportunities as the broadband provisions of the Infrastructure Investment and Jobs Act (“IIJA”) is implemented.

The specific structural recommendations would then be developed based on further input and guidance from RBI Board.

It is likely that the State of Missouri will be formulating its responses to National Telecommunications and Information Administration’s implementation of the IIJA’s Broadband Equity Access and Deployment (“BEAD”) Act at the same time as the initial legal and regulatory analysis is undertaken and therefor the analysis will be adjusted as necessary to address changes and opportunities brought about because of BEAD Act funding opportunities within the State.

3. **Service & Infrastructure Analysis**

Description: TBG will perform desktop analysis of the incumbent Internet Service Providers’ (ISP) existing broadband infrastructure within the RBI serving footprint, evaluating the bandwidth and capacity of the “as is” infrastructure layout. TBG will work with RBI stakeholders’ staff to determine if the existing or planned infrastructure components are sufficient for the present and future bandwidth requirements of both public and private entities.

Outcomes of the analysis will include GIS maps illustrating the physical extent of fiber-optic lines, service areas, incumbency, and level of services provided. TBG notes that information will be limited to the information that can be found/made available (i.e., is publicly available) and might be constrained by limited access permitted by incumbent service providers.

As RBI explores opportunities for service models that could be utilized to advance investments in new or improved broadband facilities, it will be critical that any approach be made with an appreciation of the core metrics of the broadband industry. TBG has created successful service models for both incumbent service providers ([Verizon's first FTTH network \(2002\)](#), [Qwest/CenturyLink/ Lumen's first FTTH network \(2005\)](#)) as well as for [utilities](#) and [cities](#), but cautions that every market introduces unique challenges that must be fully addressed when exploring potential deployment and operating models.

TBG uniquely brings twenty-five (25) years of industry experience with best practices and lessons learned that will be applied to the analysis of potential service models for RBI. Identified service models would include Municipally provided services, [Utility Lease Model](#), and private investment by qualified service and/or infrastructure providers.

4. **Site Analysis**

Description: TBG will complete a desktop and onsite targeted site analysis of the RBI serving footprint's public assets that can be used in the creation of the proposed fiber network design, construction, and operation. Both physical assets and related regulatory considerations will be reviewed including pole, conduit, and other wired and wireless infrastructure placement issues and priorities.

Access to poles will be a particular focus as this could have material impacts on the construction costs and timelines for a potential fiber network. TBG, together with sub-contractor K&H has extensive experience in this regard. Specifically, K&H represents utility infrastructure owners in negotiating regulated and non-regulated wireline and wireless attachments to infrastructure and in litigating attachment and access disputes against cable operators, telecommunications carriers, and wireless infrastructure companies under federal and state pole attachment laws and regulations.

5. **Market Analysis**

Description: TBG will complete an investment grade scientific market research study that will use a combination of various surveying methods such as online, telephone, and mail to get the best sample of various demographics in the community at the best possible value.

- **Community-Wide Market Study (Residential)**

Description: A primary survey of residents within the RBI service footprint to assess current satisfaction with existing Providers and services, interest in potential new service(s) such as Gigabit Internet offerings, level of acceptance of costs (current and anticipated), overall interest in possible Government provided services, projected take rates, potential ARPU (Average Revenue Per User), and future marketing messaging and positioning.

- **Community-Wide Market Study (Commercial)**

Description: A primary survey of businesses within the proposed service footprint will be completed to assess current satisfaction with existing Providers and services, interest in potential new service(s) such as Gigabit Internet offerings, level of acceptance of costs (current and anticipated), overall interest in possible Government provided services, projected take rates, potential ARPU (Average Revenue Per User), and future marketing messaging and positioning.

6. **Utility Formation Study**

Description: TBG, with its partner Keller & Heckman LLP (K&H), will provide legal, planning, and policy analysis surrounding the requirements and steps necessary to create a regional public broadband utility in Missouri. K&H will review and assist in the development of recommendations on possible regional public utility models for achieving the RBI's objectives.

Peer Analysis: There are a number of long-standing regional municipal consortia and multi-community broadband networks in operation around the country. While no two community broadband networks or regions of the country are identical, with each community having its own specific needs and considerations, it is nevertheless often useful for community leaders seeking to develop a new network to understand and learn from other similarly situated networks. As part of the Utility Formation Study, TBG and H&K will perform a survey of other comparable regional collaborations to provide further insight into benefits and potential challenges of various structures.

Programming & Finance Evaluation

Description: A key aspect of the overall Project scope is the development of an iterative, functional Financial Model to evaluate different investment or partnership structures for the Project (including operating, revenue, and Financing Models) and assisting the RBI in determining the optimal business strategy. The Model will also provide guidance related to industry-specific knowledge that may impact the financing and marketing of the proposed infrastructure investments.

7. Financial Model

Description: TBG will develop a 10-year Financial Model that will facilitate the market selection process, including an evaluation of the impact and sensitivity of the following assumptions:

- Revenue sources, including various product offerings and pricing variability (e.g., leased space/facilities, internet backhaul, services)
- Capital Expenditure requirements based on preliminary engineering assessments (e.g., fiber construction, construction methods, building specifications, electronics requirements) and the Feasibility Design
- Industry-standard Operational Expenses, including estimated headcount needs
- Changes in construction timelines and schedules
- Rapid comparison of multiple scenarios and business cases

The Financial Model will provide a tool to evaluate business options and is not designed as a detailed budget for construction. The Model will provide comprehensive ownership/operational structural overviews to outline aspects of investment, risk, return, and financing of various operational/financial solutions.

Such Owner/Operation Business Models will be evaluated to include, but are not limited to:

- Capital Construction Costs (based on available market engineering and construction costs data)
- Operating Income and Cash Flow with Complete Financial Statements
- Projected Revenues and Benefits
- Uses and Sources of Funds / Operational Expenses / Depreciation Schedule
- Debt Service Analysis
- Multiple Scenarios with Key Assumptions

Each of the Operating Concept Models will be summarized to describe the merits, as well as potential disadvantages of each scenario, together with recommendations for improved financial performance. In correlation with the engineering and market assessments and recommendations, financial options will be ranked and recommended according to the viability potential of the identified Business Models. TBG will explore various business structures to mitigate risks and growth inhibitors.

Project Identification & Final Recommendations Report

8. **Project Identification**

Description: Utilizing the information gathered in the analysis, TBG will present a proposed project plan or plans that may lead to the creation of a reliable high-performance broadband network throughout the RBI's counties and cities. Key elements of the proposed project plan(s) will include:

- Business Model Options
- Cost Estimates for Each Business Model
- Broadband Network Business Model Recommendations
- Network Design Considerations
- Regulatory Assessment Related to Elements of Business Models and Customer Base
- Market Research
- Technology Recommendations and Material Procurement Options
- Summary Operational Plan
- Presentation of Findings to Management
- Construction Management Strategy

TBG would work with the RBI stakeholders in a way that "personalizes technology," with lessons learned from industry-leading initiatives, along with sound data supporting the impact and value that telecommunications and technology can bring to the economic development agenda of the rural Missouri planning area.

9. **Final Report**

Description: Through the implementation of the elements outlined in this Scope of Services, The Broadband Group will support the RBI in its efforts to ensure a more productive and connected broadband future.

Focused initially on residents and businesses, TBG will draw on its experience to position the RBI Fiber Network to serve as a foundation for both wireline and terrestrial wireless applications, and IP enabled services supporting the delivery of Government Services, Telehealth, Distance Education, Public Safety Services, and Job Creation – all combining to attract innovators to any community, residents to any property, and tenants to any commercial building.

The Final Report will summarize key findings expressed in the RBI's Rural Broadband Network Feasibility Study.

WORK PLAN SUMMARY - BUDGET

PROFESSIONAL TIME/RESOURCE ESTIMATE

| SUBJECT | AVG. HOURS PER MONTH | RESOURCE | MONTHS OF ACTIVITY | ESTIMATED BUDGET* |
|--|----------------------|-----------------------------|--------------------|-------------------|
| Technology & Trends Review | 24 | Business & Network Planning | 1 | \$ 6,360 |
| Policy Analysis | 35 | Business & Network Planning | 4 | \$ 37,100 |
| Service & Infrastructure Analysis | 35 | Principal Engineering | 4 | \$ 42,000 |
| Site Analysis | 24 | Business & Network Planning | 2 | \$ 12,720 |
| Utility Formation Study | 28 | Business & Network Planning | 4 | \$ 29,680 |
| Programming & Finance Evaluation | 30 | Financial Analysis | 4 | \$ 36,000 |
| Project Identification | 50 | Business & Network Planning | 4 | \$ 53,000 |
| Final Report | 50 | Business & Network Planning | 2 | \$ 26,500 |
| Administration/Operations | 10 | Operations | 6 | \$ 9,000 |
| TOTAL (Material Expenses billed separately as costs are incurred) | | | | \$ 252,360 |

MILESTONE DELIVERABLES

| DESCRIPTION | |
|---|------------------|
| Market Research Study & Analysis (Consumer) | \$ 23,600 |
| Market Research Study & Analysis (Business) | \$ 15,900 |
| TOTAL | \$ 39,500 |

Major Deliverables to be billed as costs are incurred (including Term ending Summary Reports)

TRAVEL

| DESCRIPTION |
|------------------------------|
| Travel at Cost & As Approved |

Travel expenses submitted only as costs are incurred.

TOTAL

| DESCRIPTION | COST |
|--|-------------------|
| Professional Time/Resource Estimate | \$ 252,360 |
| Licensed Milestone Deliverable Cost | \$ 39,500 |
| TOTAL (+Travel at Cost & As Approved) | \$ 291,860 |

TERM: September 6, 2022 – March 1, 2023

PROFESSIONAL FEES

| RESOURCE | RATE | RESOURCE | RATE |
|-----------------------------|------------|-----------------------|------------|
| Business & Network Planning | \$265/hour | Principal Engineering | \$300/hour |
| Financial Analysis | \$300/hour | Operations | \$150/hour |

PROPOSED PROJECT TIMELINE

RURAL BROADBAND NETWORK FEASIBILITY STUDY

| Task | Start Date | End Date |
|---|--|-----------------------|
| Notice of Award | August 29, 2022 | |
| Project Kickoff | September 6, 2022 | |
| 1. Technology & Trends Review | September 6, 2022 | October 7, 2022 |
| 2. Policy Analysis | September 6, 2022 | December 31, 2022 |
| 3. Service & Infrastructure Analysis | October 1, 2022 | January 31, 2023 |
| 4. Site Analysis | October 1, 2022 | November 30, 2022 |
| 5. Market Analysis | TBD | TBD |
| 6. Utility Formation Study | October 1, 2022 | January 31, 2023 |
| 7. Programming & Finance Evaluation | October 1, 2022 | January 31, 2023 |
| 8. Project Identification | November 1, 2022 | February 28, 2023 |
| 9. Final Report | Estimated Delivery Date: March 1, 2023 | |
| Total Estimated Project Duration | | Six (6) Months |

Note: Timeline is a high-level estimate and is subject to change as discussions with RBI stakeholders evolve.



SAMPLE AGREEMENT & NOTICE TO PROCEED

RURAL BROADBAND NETWORK FEASIBILITY STUDY

If approved, please execute, and return one (1) copy to The Broadband Group, 900 S. Pavilion Center Drive, Suite 155, Las Vegas, NV 89144.

NOTICE TO PROCEED INDICATES APPROVAL OF:

- SCOPE OF WORK
- FEE AND REPRESENTATION SUMMARY TERMS AND CONDITIONS

AGREED AND ACCEPTED

The Broadband Group

By: Jeffrey M. Reiman

Date: August 18, 2022

Title: President

Signature: _____

Rural Broadband Initiative (RBI)

By: _____

Date: _____

Title: _____

Signature: _____

Unless informed to the contrary in the space provided below, the monthly invoices and reports will be sent to the attention of the individual executing this agreement:

Name: _____

Title: _____

E-mail Address: _____

Invoicing Address: _____

Telephone Number: _____

Term: September 6, 2022 – March 1, 2023

Reference: August 18, 2022

Re: Professional Technology Planning Consulting Services
Rural Broadband Initiative (RBI)
 Rural Broadband Network Feasibility Study (RFQ 0000071052)



SAMPLE FEE AND REPRESENTATION SUMMARY

We would be pleased to accept this assignment. This letter Agreement sets forth the terms of engagement. Our references to "you" or "your" in this letter agreement are intended to refer to the identified representative on behalf of the Rural Broadband Initiative Board (RBI).

CONSULTING SERVICES TO BE PROVIDED BY THE BROADBAND GROUP. We would agree to provide the services outlined in this proposal. In addition, we would perform such other business matters as you may request from us from time to time and to which we agree.

WHO WILL PROVIDE CONSULTING SERVICES. It is the practice of The Broadband Group (TBG) to assign a principal Consultant to each representation. Subject to the supervisory role of the principal, your work, or parts of it, may be performed by other consultants, engineers, and operations staff at or in TBG. Such delegation may be for the purpose of involving such consultants, engineers or operations staff with special expertise in a given area or for the purpose of providing services on an efficient and timely basis. Upon request, we will advise you of the names of those individuals who have worked or who we anticipate will work on your engagement.

RESPONSIBILITIES OF THE BROADBAND GROUP. It will be our responsibility to perform the services called for under this agreement, to take reasonable steps to keep you informed of progress and developments and to respond promptly to your inquiries and communications. We will at all times act on your behalf to the best of our ability. Any expressions on our part concerning the effectiveness of certain strategies and courses of action or statements of opinion regarding the outcome of this engagement are expressions of our best professional judgment but are not guarantees. Such opinions are necessarily limited by the extent of our knowledge of the facts and are based on the state of the industry, applicable regulatory law, or practical applications at the time they were expressed.

CLIENT RESPONSIBILITIES. In order to enable us to perform these consulting services, please provide us with all background information on your community or business available to you that may be necessary for us to perform our services or that we may reasonably request, and update us regarding any changes in such information.

Additionally, please advise us whether any document we have prepared or received and sent to you for your approval or review reflects and is consistent with your understanding and expectations in this engagement.

Upon engagement, we ask that you not sign any document related to telecom infrastructure financing or Telecommunications Service Provider access consideration until the Rural Broadband Network Feasibility Study deliverable is complete or without first having reviewed and sought our mutual approval. This is very important so as to not restrict any opportunity that might maximize the opportunities and business elements of a Plan or future investment.

We will request that you designate someone as your authorized representative to direct us and to be the primary person to communicate with us regarding the consulting services to be provided during the engagement as described in this letter agreement. This designation is intended to establish a clear line of communication and authority and to minimize potential uncertainty in communication.

BILLING. We account for all the time our consultants and other professional personnel spend working on your matter, such as conferences with you or with others on your behalf, telephone conferences, correspondence, research, preparation and revision of documents, preparation for and appearances with carriers, customers, regulators, etc. We will keep records of the time each of our consultants and staff devote to this engagement. We record our time in units of quarters of an hour. In addition to fees for services rendered, expenses incurred by us on your behalf will be billed to you.

Our invoices describe the work performed by each person and the date such work was performed. Each entry also shows the amount of time expended and the total billing rates for that entry.

FEE STRUCTURE. All fees have been outlined in our Scope of Services. We change our billing rates from time to time based upon changes in our costs, each consultant's expertise, and other conditions. If hourly rates are changed, you will be notified on your monthly billing invoice. If you have questions concerning any new rates, please contact us immediately. Unless you object promptly to such new rates, we will proceed based upon the new rates.

GENERAL DISCLOSURES AND REQUESTS FOR CONSENT. We recommend that the City Utilities of Springfield review the terms of this letter agreement (this Fee & Representation Summary) to ensure that it is agreeable to you, that it adequately reflects your understanding of the relationship this letter agreement establishes, that the fees and other compensation are fair and reasonable under the circumstances, that the disclosures that follow are clear, and that the waivers and consents are reasonable. City Utilities of Springfield's approval of our Agreement shall constitute acknowledgement of this Fee & Representation Summary. If you have any questions or concerns, please do not hesitate to contact us.



SUSPENSION OF ENGAGEMENT. If you want us to stop working on your matter, you must notify us promptly. If you fail to fulfill any of your responsibilities to us as set forth in this letter agreement, including your responsibility to pay our billings in a timely manner, we may stop work on this engagement until the problems are corrected or as it may become necessary for us to withdraw from your representation.

TERMINATION OR WITHDRAWAL FROM REPRESENTATION. The consultant-client relationship is one of mutual trust and confidence. We encourage our clients to inquire about any concern relating to the matter, our representation, our fee arrangements, or our monthly invoices.


You may terminate our representation upon thirty days' notice, with or without cause. If termination occurs, your papers and property will be returned to you upon request. Our own files pertaining to the project and assignment will be retained. Termination of our services will not affect your responsibility for payment of services rendered and out-of-pocket costs incurred before termination and in connection with an orderly transition of the matter.

We try to identify and discuss with our clients any situation that may lead to our withdrawal. If withdrawal becomes necessary, we will give you notice of our intention to withdraw.

OTHER STANDARD TERMS OF THIS LETTER AGREEMENT

Severability in Event of Partial Invalidity. If any provision of this letter agreement is held in whole or in part to be unenforceable for any reason, the remainder of that provision and of the entire letter agreement will be severable and will remain in effect.

Nevada Law. This letter agreement is deemed to be entered into at our office in Las Vegas, Nevada and shall be interpreted according to Nevada law, excluding its conflict of laws provisions.



The Broadband Group & TBG Network Services
900 S. Pavilion Center Drive • Suite 155
Las Vegas, NV 89144
broadbandgroup.com • 702.405.7000

