



April 5, 2024

City of Harvard
201 West Diggins Street
Harvard, IL 60033

Attention: City Administrator – Broadband Feasibility Study RFP

Mr. Leone,

Please find attached our proposal for completing a Broadband Study for the City of Harvard, Illinois.

We understand the importance of the Broadband Study for determining the best approaches for better broadband and cellular coverage in the City of Harvard; with this in mind, we expect our work to be completed and issue our Feasibility report within five months of the project award.

We understand there may be existing providers, City assets, and other strategic partners that could be integral to broadband and other City endeavors, which we will include in our solutions review.

Our approach involves Finley completing a review of the existing broadband providers, reviewing other broadband mapping data in the City of Harvard, and completing designs and cost estimates to build broadband in the parts of the City of Harvard where investments are not already planned. CCG Consulting will tackle issues like pricing analysis, competitive analysis, stakeholder discussions, speed test analysis, and operational plans. CCG Consulting will also create the forecasts to enable the City to understand the financial viability of various options. Both firms will jointly complete a final report for the City of Harvard.

We've proposed a second phase of the effort as a Community Engagement Plan. Until the City digests the first report it's impossible to know this early the direction the City might go next. We've proposed a sample of what a community engagement plan might look like, but we hope to be able to revise the effort and pricing once the real direction of the City is known.

Utilizing our team, you will receive expert analysis from two independent firms working jointly to provide an actionable plan with the goal of better broadband for the citizens within the City of Harvard.

Once you have reviewed our proposal, we can discuss any further specific needs and requirements of a Broadband Study for the City of Harvard. We have separately attached a pricing proposal to complete the study. If our proposal meets your needs, we are ready to execute an agreement with the City of Harvard to proceed with the Broadband Study.

Sincerely,

Brian A. Swanson
Chief Financial Officer
Finley Engineering, Inc.

Proposal Summary: Our Approach

Finley Engineering and CCG Consulting have more combined experience assisting the widest variety of internet providers in building broadband networks. Our experience assisting clients with network funding applications, network deployments, and network operations gives us a unique background to complete comprehensive broadband studies for public bodies. Our experience is based on over 30 years of real-world network deployments and not just a theoretical understanding of networks. We know where and what to look for to determine the true extent of broadband deployment in the City of Harvard. No other combination of consultants has our depth and longevity of experience.

Finley Engineering has completed hundreds of broadband projects in the last 16 years; those projects have been with a wide variety of broadband technology types and for network operators, including cities, counties, municipal utilities, electric cooperatives, competitive providers, telecom companies, and wireless ISPs. Finley Engineering has completed multiple broadband studies for the same types of clients over the last eight years and has assisted many provider clients with state/federal grant funding applications and competitive bidding opportunities to secure funding for broadband projects.

CCG Consulting has assisted more than 1,200 clients including municipalities, competitive fiber providers, telcos, cable companies, cooperatives, and wireless companies with strategic planning, funding, and project implementation. CCG also has decades of experience in helping communities and ISPs form public-private partnerships.

Finley and CCG recognize that each entity working to build better broadband has different goals for their projects, tolerance to risks, capital budgets, existing technical expertise, and other decision-making points. Our work aims to provide each client with a set of options to help improve broadband. We have recently helped multiple public body clients move forward with an RFP/RFQ process to implement one of the broadband improvement solutions, and we would be happy to discuss those options when we have completed the Broadband Study.

General Firm Information: Why Choose Our Team

We think there are several reasons why CCG Consulting and Finley Engineering are the best team for providing the answers you are looking for:

- We don't think another engineering firm in the country has Finley Engineering's experience. We've been in business designing networks since 1953 and will likely have more experience than any other consulting engineers you may talk with.
- CCG Consulting is the largest broadband consultant in terms of clients and has helped over 1,200 clients since its inception in 1997.
- Finley Engineering and CCG partner regularly on feasibility studies like this one, and we have partnered on nearly 60 similar feasibility studies since 2017. We work well as a team and have refined the process of looking at the feasibility of building and operating a wide variety of broadband networks.
- CCG has a lot of experience working with municipalities and has over 600 municipal clients, many of whom have undergone a similar feasibility study. We are certain that more municipal clients have built and are operating fiber networks than any other consultant.
- We think the biggest advantage of using the combination of Finley and CCG is that you get opinions and recommendations from two of the most experienced firms in the industry instead of an opinion from only one firm. We provide feedback to each other, giving the final report more credibility and giving the City more confidence in moving forward.
- Both of our firms are vendor-neutral. That means we don't have any preconceptions about the right solution for you. It almost sounds trite, but we've learned that no two clients are the same, and we strive to find the right

solution for you rather than try to make you fit into a pre-conceived solution in a box – something some of our competitors do.

- One thing you get from us will be a written report in plain English. We understand the audience for a written report is those who may be technical staff, politicians, and the public. We write for those audiences and do our best to keep jargon out of our writing. Doug Dawson of CCG is an accomplished writer who publishes the industry's only daily blog for small ISPs and municipalities.
- CCG staff has considerable experience in the operations side of broadband businesses. Most of their consulting work is involved with helping clients be more efficient in their businesses. This has allowed CCG to look deeply into the processes of hundreds of small ISPs, and that experience will enable us to find the best industry practices. Many other consultants only 'consult' and don't have this deep and broad operational experience.
- Finley has a deep level of experience in helping clients apply for and win broadband grants at both the federal and state levels, including CAF II, State Broadband grants, FCC Broadband Experiment, RUS Broadband Loan/Grant programs, RDOF, NTIA, and others.
- CCG specializes in helping companies fund new ventures. This starts with the financial models that are banker-ready. Numerous lenders and bond houses have said the CCG models are the best they have ever seen. Doug Dawson also has a track record of getting projects financed; he understands the municipal bond process, the banking process, and more creative ways to fund projects.

Task Area Descriptions: Scope of Work

The Broadband Study work that Finley Engineering and CCG Consulting will complete for this engagement addresses the following:

- Conduct a competitive and needs analysis to understand your citizens' broadband needs and to estimate market demand for broadband services.
- A review and update of the existing broadband competitive market within the City of Harvard.
- Inventory the city's broadband infrastructure.
- Pre-engineering to estimate the cost of building a comprehensive network.
- Financial and operational analysis estimating the incremental revenues and expenses for options, including public-private partnerships or the City being an ISP.
- A description of the many issues the City will need to tackle if you decide to become an ISP.
- A community engagement plan for bringing the public into the process.
- A report that will tell you what we did, what we found, and strategic recommendations for a city network, broadband, and cellular initiatives going forward.

Phase 1 - Methodology for Completion of the Broadband Study

The Summary of Work identified in the RFP is similar to many other broadband studies we have completed for multiple counties over the past several years. Below is a description of the activities we will meet for the City of Harvard; we take these broad categories of work and ask detailed questions in our Project Kickoff Meeting to ensure we are gathering all the details that are important to you.

Assessment & Analysis of the Current State of Broadband *(Completed by Finley & CCG)*

We don't think you want to hire us to spit back maps of publicly available data to you. We have been working with communities for years and know that the FCC and other data are often incorrect. We are proposing an engineering analysis that will help us create our own versions of the broadband maps that we know will be much more accurate.

That process will include the following steps:

Interview ISPs

We propose interviewing the ISPs offering services in and near the city. We will ask each ISP about their current network and see if they will tell us any upcoming plans to improve their networks. The goal will be to understand ISPs in the area in terms of suitability as a partner with the City.

Hands-on Engineering Analysis

After we have analyzed current broadband and talked to the ISPs, Finley Engineering will send experienced broadband professionals to visually visit the city to verify the existing broadband environment. For instance, we can verify the age and likely speeds available on DSL by looking at DSL cabinets. We can better understand fixed wireless deployments by looking at the towers and sites used to broadcast broadband. If they claim such things, we can visually verify if an ISP has extended a coaxial cable or fiber network in the area. We've found that this on-site review is one of the most important steps in creating your broadband map. A visual inspection verifies truthful claims and invalidates untruthful ones made by ISPs.

Broadband Market Research *(Completed by CCG)*

Pricing Strategy

We know that prices for broadband and other triple-play products vary by community. We think it's important to understand the products and prices available in the market today. We generally undertake this in several ways. We first do standard research, such as web searches, to see if we can determine what existing service providers charge and the services they offer. We will also talk to service providers who are often willing to share their pricing with us.

One of the primary deliverables from the pricing strategy will be a detailed description of the many different philosophies that ISPs use to set rates. This will be useful for the City if you decide to become an ISP.

Interviews with Stakeholders

We propose to interview up to twelve key stakeholders in the City. We would like to ask your help identifying them. This could be key businesses, government stakeholders like the schools, or health care providers. It could include others like major employers, but we also want to talk to some smaller and rural businesses. CCG Consulting has conducted thousands of similar interviews, and we know how to tailor our questions to fit each stakeholder. These interviews are more in-depth than surveys and tell us a lot about how the current state of broadband affects the community.

These interviews would be conducted by telephone, typically lasting about 30 minutes each (a few last longer). We will ask for your help to identify the best contacts as the various stakeholders. In our experience, we've learned that we will need your help to let these entities know that we will be contacting them – otherwise, many of them will be reluctant to talk to a consultant they never heard of or to disclose things that might end up in a public report. We always give stakeholders the opportunity to keep their responses to us confidential if they don't want us to discuss their responses in the written report.

Residential Survey

One of the most useful tools for reaching out to the public is through an online survey. The primary reason we do residential surveys is to understand the residential interest in better broadband. CCG has been conducting residential surveys for over twenty years. There are a few factors that are vital to creating an accurate and believable survey. First, the questions asked must be unbiased and can't lead respondents to answer in a given way. CCG has administered hundreds of similar surveys, and we can help you to prepare survey questions that are not biased and for which you can then believe the answers. Another important factor is to limit the number of questions. There is a well-known phenomenon called survey fatigue, and a large percentage of people will hang up or walk away from a live survey if they feel it's taking too long. An online survey should not last more than ten minutes, hopefully for less time.

We propose to put the survey online and will provide a link that the City can advertise to the public. We'll work with the City to understand the most effective ways that other cities have used to advertise the survey.

Business Survey

We also propose creating an online business survey. This structure differs from the residential survey because we ask businesses to tell us their broadband story. We want to know if current broadband is adequate and, if not, what problems businesses see. We also want to know what businesses could do better if they got better broadband. We will also ask the city for help in advertising the business survey. We've found that there are generally a few ways in every community to distribute the survey, and we will ask your help to spread the word about the survey.

Speed Tests

We've found gathering speed test data from residents and businesses important. This is the best way to get a qualitative look at broadband performance in the city – are the ISPs delivering what they are advertising? Speed tests are becoming a standard component of broadband studies because it's clear that the FCC broadband data, particularly in rural areas, is often vastly overstated. We will access the public Ookla speed test data to quickly assess the speeds being reported within Harvard. Accessing the level of data assists our teams in getting a granular look at what citizens are experiencing on their home and phone devices. In addition, the review of this data, combined with the GIS data analysis, assists with pinpointing specific infrastructure field review points that need further investigation during the field review.

GAP Analysis *(Completed by CCG)*

A gap analysis looks in detail at the broadband situation in the city. The gap analysis has several goals:

- First, we gather as much information about the city as possible to see what the rest of the world thinks about your broadband. For example, what does the FCC think the broadband situation is in the city? What is being reported to Congress about the City.
- Second, we will do our best to help you set the record straight. Between the engineering estimate, our discussions with ISPs, the speed tests, the surveys, and the interviews with stakeholders, we can help you paint a truthful picture of existing broadband.
- Finally, we will look at all the other gaps, like the gaps in broadband affordability or homes without computers or computer training. There is a lot of grant money to help in these areas and grant funding for building networks; you need these facts to pursue funding.

Strategic Engineering Network Design & Cost Estimate *(Completed by Finley)*

To fully understand the capital needed for the financial and business analyses, Finley Engineering will complete pre-engineering work; our FTTH network design will utilize the existing City of Harvard GIS data and any other appropriate data sources to help provide meaningful detail in the network design.

Per the RFP, our team will complete high-level engineering in both PON and Active-E models to understand the overall cost of building a fiber/broadband network. This engineering is mostly done in our offices and involves only a few days of fieldwork. In this high-level engineering, we aim to estimate a high-level network cost to ensure we have estimated sufficient dollars for the overall project. Our goal in network design is to get as close as we can to the cost of the network while remaining slightly conservative to allow for variances.

The preliminary high-level design and estimate are not wasted work because we undertake the analysis, so this would be the beginning point for final field engineering should you decide to move forward. We will evaluate all the services and assets needed to build and operate the network. This would include the necessary electronics to light the network,

the drops and electronics required to serve customers, the electronics needed to provide the triple play service, and other infrastructure connectivity in the City of Harvard.

Finally, we will look at whether you need to build a new location to house the electronics, primary and backup power requirements, and the cost of ancillary equipment, including vehicles, computers, furniture, software, etc.

We always build in a construction contingency, and we vary this between 5% and 10% percent of the project, depending on how good we feel about the assumptions used in the study.

We also do something in our business plans (described below) that many other consultants don't do. We know that assets have to be replaced. For example, vehicles rarely last more than five years. The core electronics are going to be obsolete within 7-10 years. The fiber will likely have a lifespan exceeding 30 years, but repairs will still have to be made every year. We make sure that we build replacement costs into the forecast so that you can always ensure that you will have sufficient cash in future years.

The deliverable for preliminary engineering is to produce a detailed narrative and cost estimate for each study scenario. The specific deliverables include:

- Our review of broadband options will include fiber and fixed wireless options, which private broadband providers might consider when providing service.
- A GIS FTTH design for the City of Harvard's Unserved and Underserved areas (such as fill-in areas around existing broadband builds), showing realistic fiber sizes, equipment, PON cabinet locations, and proposed splice points. We will develop a cost estimate for all the components of an operational network in these areas and provide a written narrative detailing our assumptions and our results.
- The cost of ancillary assets needed to be in the business, such as a building, vehicles, computers, and the electronics required to provide the triple play services.

Broadband Financial Model Recommendations *(Completed by CCG)*

Our financial analysis will include the following efforts:

Operating Models

The RFP asks us to consider multiple operating models. We can incorporate any of the following models into our analysis. For each operating model we consider we'd describe the pros and cons of each approach. We over 1,200 clients, CCG knows ISPs operating under each of these scenarios.

- The City as an ISP. This assumes the City will pay for the infrastructure and hire the staff needed to operate the business.
- Public-Private Partnership Options. There are numerous ways that commercial ISPs and governments can create a partnership. The different arrangements mostly differ by the amount of money and contribution that the government is willing to make. Some of the primary options will include:
 - True Partnership. In this scenario, a local government and an ISP form a partnership, with each adding some of the funding. Local governments then get some say in pricing and other key aspects of operating the business.
 - Operator for Hire. In this scenario the local governments would build the network and would hire an ISP to operate it. This means the local governments would take all of the risks, but also get all of the rewards in future profits.
 - Leasing the Network. In this scenario, a local government builds a broadband network and leases it to an ISP to operate.
 - Open-Access. With open-access, the local government would build the network and sell access to multiple ISPs.

Financial Forecasts

Our analysis will create a base financial model for each operating model we are studying. Our analysis will look at the basic potential to be profitable under each scenario.

CCG Consulting has prepared hundreds of financial business plans for clients. We have studied and helped implement almost every conceivable type of competitive communications network and venture. Through years of this experience, we have refined our business plan models such that they are thorough, focused, and grounded in experience. Our business plans are not pie-in-the-sky since we have extensive experience of how companies function after they build the network.

The financial business plan will include in-depth analysis related to the organization, operating costs, overheads, equipment, and materials required to operate a new ISP in the City. We build our business plans from the 'bottom up' and we make detailed projections for the required staffing, capital and equipment needed to meet the plan objectives. Consider the question of the proper level of staffing. We will not only suggest the right number of employees for the business, but we are going to suggest specific titles and salaries that we think are appropriate for your region.

Another important variable in any financial model is the penetration rate or the percentage of customers that select a new fiber business. We look at potential penetration rate in a few different ways:

- We'll use market research like surveys to help estimate market demand.
- CCG also has vast experience working in hundreds of markets, and we can probably make an educated guess of a penetration rate based on the size of the market, the broadband available today, and the specific incumbent providers.
- One of the most useful outputs of our studies is that we will calculate the breakeven penetration rate. This is the number of customers needed for the business plan to be cash-self-sufficient, meaning that revenues cover all costs, including operating expenses, debt, and ongoing operating capital.
- Finally, we will undertake a sensitivity analysis on the penetration rate and other key variables to be able to understand how changes in business model assumptions would change the ultimate ISP business. We know that changes in key variables like broadband prices, interest rates on debt, or the cost of the network will have a big influence on financial results.

Our financial format creates GAAP accounting financial reports. This means that in addition to looking at capital and operating costs, we also calculate depreciation and amortization expense, look at the cash needed to float accounts payable, etc.

Our business plans differ from those of many consultants in that we always account for the maintenance and replacement of electronics and other assets over time. Working with hundreds of clients has allowed CCG to understand how long fiber assets last (which is often quite different than the expected asset lives as predicted by the typical industry depreciation rates). We will predict the future needs to retire and replace assets to ensure sufficient cash for future operations.

Financing and Funding Options

The CCG and Finley team is uniquely poised to help understand the options for funding the network. We will consider the following:

- Doug Dawson of CCG has decades of experience helping ISPs with funding. He's worked with numerous municipalities to obtain bond funding. Doug has also helped commercial ISPs raise funding through bank loans, new market tax credits, opportunity zone financing, and other unique funding mechanisms, such as raising equity from the public. Our analysis will not only the full range of options for funding the network. We will look at financing from the perspective of the city, but also from the perspective of any possible ISP partners.

- Both of our firms are heavily involved in the current tsunami of broadband grant opportunities. While it's not easy today to get grant funding to help pay for networks in cities, we are sometimes surprised to find grant opportunities.

Our specific deliverable will be a funding plan. We will provide a comprehensive discussion of the sources of funding required to fund a broadband solution in the City. We will look at the market issues today in raising the capital needed by cities or ISPs to fund infrastructure – we'll cover the full gamut of ways that we've seen other similar communities fund broadband networks.

Operational Analysis *(Completed by CCG)*

CCG Consulting brings decades of experience to this part of the analysis. Most of our staff has operational experience working for ISPs. Our company was specifically launched to help new ISPs enter the business or existing ISPs open new markets. The various plans describe below are the bread and butter of our consulting practice.

We will provide what is essentially a primer on how to be your own ISP – tailored to meet the specific size and characteristics of Harvard. The marketing plan and maintenance plan, will only apply to the scenario where Harvard decides to be an ISP. The other three plans will be delivered in two sections – one if Harvard is the ISP, and one if you create a public-private partnership.

- Marketing Plan. We will talk about the tools and processes that ISPs of all kinds have found effective in selling. We'll describe the very different processes used to sell to residents versus businesses.
- Operations Plan. This is the heart of launching a new ISP. As mentioned, we'll deliver two different plans – one for the City as a retail ISP, and one where you own the network in partnership with one or more ISPs. The operational plan will look at the major aspects of operating an ISP including staff, software systems, backoffice functions like accounting and billing, provisioning (connecting new customers), customer service, etc.
- Maintenance Plan. This will look in more detail at the roles of technicians in operating and maintaining a network. We'll talk about the process of taking customer complaints and the process of solving problems. We'll talk about warranties and maintenance agreements with vendors. We'll talk about having to replace assets over time, and in the case of a municipal ISP the concept of creating sinking funds to pay for future expected upgrades.
- Municipal Governance Plan. This is an area where CCG's experience can help. We've seen that one of the biggest challenges in operating a municipal ISP is to isolate the ISP business from politics. For example, we've seen municipal ISPs where politicians needed to approve rate increases or expenditure and who refused to do so in election years – to the detriment of the ISP business. There are governance ideas used by other cities that you will want to consider.
- Implementation Plan. The implementation plan will talk about the many steps that must be taken from the day that the decision is made to get into the ISP business as a retail ISP or network owner up until the day when the business gets the first customer.

Written Report and Recommendations *(Completed by Finley and CCG)*

Our quote includes a detailed report that details what we have found, recommendations for future work, and options for broadband deployment; our report can also be a great tool for the education of the City Council and citizens about broadband. The report will look in depth at a wide range of different topics of your choosing.

Our report will include basic information such as:

- An executive summary of what our analysis means.
- A description of the market research and the results we obtained.
- A description of the engineering assumptions made in the analysis and the results we obtained.
- An in-depth discussion about funding a new network.
- An operational analysis describing the steps needed for the City to become an ISP or a partner in an ISP.
- A list of specific recommendations based on what our analysis tells us.
- A list of ideas and next steps for moving forward after you get our analysis.

The written report will mostly be authored by Doug Dawson of CCG Consulting. Doug writes these reports in plain English with the target audience being your Commission and your citizens – we do our best to avoid industry jargon whenever possible. Doug has a casual writing style that the public seems to like.

Doug also has been writing a daily telecom blog since 2013 called Pots and Pans by CCG, found at <https://potsandpansbyccg.com/>. You can see more of Doug's writing style and also the wide range of topics that are covered by CCG.

Presentation of Results *(Completed by Finley and CCG)*

Our proposal includes a presentation of our findings to the City of Harvard. CCG Consulting and Finley Engineering will present our findings to the City of Harvard Commission, key stakeholders, or the best combination for you. Some or all of this presentation will likely be virtual.

We expect to make several visits to the City of Harvard as part of this project as follows:

- An engineering kick-off meeting by Finley Engineering will look in detail at local fiber assets, construction issues, Make Ready evaluation, etc.
- An online presentation of the results of our analysis before the on-site presentation of results.
- A final in-person presentation of results. Our pricing includes an estimate of travel expenses and bill actual travel expenses without markup. We also can do the final presentation by phone or video conference.

Phase 2 - Education & Community Engagement *(Completed by CCG)*

We are proposing Community Outreach and Education as a second phase of the effort. At this early stage, there is no way to know the effort that will be required. This is because the study considers multiple scenarios, and each would result in a very different community outreach effort.

Consider the two options:

Harvard as an ISP. If the City decides to become an ISP, you will want the maximum public education and community input. It's hard to provide a budget for this effort without knowing the capability of the folks in the City. The ideal public outreach plan would largely involve local folks, and you'd bring in our team for support.

We're proposing an estimated price for this task. We hope you consider the cost of this section separate from the rest of our proposal because we'd ideally like to work with the City to establish a specific work plan and budget once we know the outcome of the feasibility study. We suggest you use our quoted price as a

budget holder, not a firm proposal.

Some of the things that we would normally do in a community engagement plan include:

- Providing materials to help educate the public. That would include:
 - Written materials for the City website. Much of this could come from our feasibility study.
 - Our presentation PowerPoint summarizing the report.
 - In today's video-driven world, we also propose to provide a video equivalent of answers to frequently asked questions. These would be short 5-minute videos that would answer basic questions like, "What happens in my neighborhood during fiber construction."
- To the extent the City is interested, we can host public meetings where we discuss the study results and answer questions from the public.
- We can provide high-level summary materials that could be part of a social media plan to educate the public.

Harvard as a Partner. The engagement plan would be drastically different if you decide to become a partner with an ISP. It's likely that your ISP partner would want to drive the community engagement plan. We don't have any easy way to suggest what the outreach process might look like up front without knowing the ultimate type of partnership and the specific partner.










Respondent Qualifications

Proposal Contact

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Project Plan and Schedule

Finley Engineering and CCG Consulting routinely complete these projects in 5 months. Below is a schedule typical of most broadband studies we complete; our task-specific timelines are general to account for any delays in receiving information required for some of the work we complete and to allow for sufficient time to engage with stakeholders critical to this project.

City of Harvard IL Broadband Analysis Timeline	May 2024	June 2024	July 2024	August 2024	September 2024
Contract Execution					
Project Kickoff Meeting					
Broadband Mapping and ISP Review					
Broadband Infrastructure Analysis					
Market Analysis and Surveys					
Network Design and Technology Review					
Business Plan and Finance Evaluation					
Policy Analysis and Next Steps Evaluation					
Final Report and Presentation of Results					

Finley Engineering (Prime)

Finley Engineering is headquartered in Lamar, MO, and is a \$30 million S-corporation with more than 200 employees and 11 licensed professional engineers (licensed in over 40 states); it has multiple certified PMPs (project management professionals) and was established in 1953 in Lamar, Missouri which is the current headquarters. In addition to this office, Finley has permanent offices located in Altoona, WI (established in 1960); Bismarck, ND (established in 1966); Slayton, MN (established in 1971); and Kansas City, MO (established in 2013). We operate nationwide and have also completed many projects outside of the U.S.

Finley offers many professional services (listed below) in broadband/telecommunications, electric power transmission and distribution, and related industries. He has extensive experience working with states, cities, counties, cooperatives, public and private companies, and other government agencies.

Listed below are just a few of the many services offered by Finley. In addition to those services, Finley manages bidding processes, performs the role of liaison with vendors, contractors, and other firms, provides full services for loan/grant applications & projects, completes design and construction oversight of OSP and central office and remote hut facilities as well as primary and backup power facilities.

Finley is a recognized leader within the communications industry as reflected through our years of membership and active participation in the NTCA-the Rural Broadband Association, Fiber Broadband Association (formerly Fiber-to-the-Home Council), the Utilities Communication Association (UTC), the National Association of Telecommunications Officers and Advisors (NATOA), MiCTA, APPA, IEEE, and dozens of other associations. Our leadership is noted through awards received over the years, including Broadband Properties Magazine's Top 100 Broadband Companies in America (received every year since 2009) and ZweigWhite's 150 Fastest Growing A/E Firms in the US and Canada. Additionally, an independent client satisfaction survey reveals that Finley's client satisfaction ratings have climbed to 95%, which is among the industry's highest.

Municipal Broadband System Engineering and Mapping, Broadband System Planning and Design, Feasibility Studies,

Technical Evaluations, Network Engineering, Contracts, and Project Management.

Broadband Funding Acquisition. Funding Application Preparation, System Design, Project Mapping, Public Private Partner Selection, Funding Compliance, Project Management.

Environmental Services. Feasibility Studies, Route Analysis, Cultural Resource Surveys, Biological Surveys, Historical and Cultural Surveys, Permitting and Licensing, Compliance.

Electrical System Engineering. System Design, Long Range Planning, Transmission and Distribution System Plans and Specifications, Feasibility Studies, Construction Plans and Specs, Project Management.

Finley’s Three-year financial summary.

	Actual		
	2021	2022	2023
	Revenue	26,832,497	33,482,606
Direct Expenses (Includes Reimbursables)	13,401,834	15,914,976	17,274,488
Gross Margin	13,430,663	17,567,630	18,478,787
Gross Margin %	50.05%	52.47%	51.68%
Operating Expenses	11,930,319	14,631,261	17,170,210
Operating Expense %	44.46%	43.70%	48.02%
Net Operating Income	1,500,344	2,936,370	1,308,577
Net Operating Income %	5.59%	8.77%	3.66%

CCG Consulting (Sub-contractor)

CCG’s full corporate name is Nationwide CLEC, LLC dba CCG Consulting. The company is a Delaware corporation in good standing. As such, we have the authority to do business nationwide and have done work in all fifty states.

CCG was founded by Doug Dawson in 1997. Since then, we have grown to become the largest telecom consulting company in the country in terms of clients.

Ability to do municipal services: CCG was founded by Doug Dawson in 1997. Since then, we have grown to become the largest telecom consulting company in the country in terms of clients. Since our inception, we have worked with over 1,200 clients. Among those clients are over 700 municipal clients, with the others being a mix of fiber overbuilders, telcos, cable companies, and wireless companies. This distinguishes us from other consultants who work for municipalities in that many of them don't also work for commercial clients – we know that working with commercial ISPs has taught us to have a strong focus on profitability and efficiency, which we think is essential for municipal broadband projects. We have assisted many of the largest and most successful municipal clients in entering the broadband business, including places like Lafayette, LA, and Chattanooga, TN.

CCG is a full-service telecom consulting firm, meaning we can help with a broad array of services broadband providers need. CCG has one of the industry's most comprehensive technical knowledge bases because we work with almost every kind of network possible, including fiber, copper, HFC/coaxial, and a wide variety of wireless technologies. We work with clients serving farms and rural areas and others working in NFL cities. This wide range of client work means that we have to stay current and on the cutting edge of technology to anticipate the needs of tomorrow.

Broadband Properties Magazine has named our company one of the Top 100 Broadband Companies in America for multiple years. CCG specializes in helping businesses get started, open new markets, and stay profitable once in the

industry. Some of our areas of expertise include:

Planning Services. Strategic Planning, Policy Development, Business Plan and Feasibility Studies, Assistance with Financing.

Regulatory Services. Interconnection Agreements, Certification Assistance, Regulatory Compliance, Tariff Creation.

Marketing Services. New Product Development and Implementation, Market Research, Marketing Plan Development, Development of Pricing, Packaging and Promotional Programs.

Implementation Services. Timelines and Gantt Charts, Customer Service and Billing Platforms, Hiring and Training, Setting Sales Quotas and Sales Training, Number Portability, and Finding Vendors.

Engineering Services. Facilities-based Network Design and Optimization, Design of Central Office Facilities, Network Interconnections, Sizing, Ordering and Implementing the Network, Network Migration Strategies, Detailed Customized RFPs, and Vendor Selection.

Contract Negotiations. Contract Mediation and Dispute Resolution, Local Exchange, Utility and Municipal Agreements, Right of Way and Pole Attachment Fees.

Partnership Opportunities. Financing Solutions, Strategic Alliances, Third Party Relationships, Outsourcing of Non-strategic Competencies.

Doug Dawson, the President of CCG, writes a daily telecom blog for small carriers at <http://potsandpansbyccg.com>. We suggest you look at the blog and see a sample of the wide range of topics we cover. We look at the current market and what the industry might become in the next five to ten years. We don't think any other consultants spend as much effort looking into the future.

[Project Staff List](#)

The professional staff of Finley and CCG are seasoned professionals in the broadband industry, completing multiple broadband studies with deep experience designing, engineering, and operating broadband networks.

We know where to look for broadband gaps because we have many years of experience designing, building, and operating broadband networks; we know how to find solutions since we work with broadband operators daily, evaluating regulations, finding funding, and implementing network solutions.

Find below the specific roles of key project staff and short biographical information. We will utilize other staff to complete GIS and field review work.

Tim Arbeiter - Broadband Study Lead

Tim will coordinate with other Finley staff on the overall broadband study engagement and with Doug Dawson on Funding solutions, Legislation, and Final Report creation.


Doug Dawson - Market/Gap Analysis, Funding, Legislation, Final Report Author


Mr. Dawson will lead the Market and Gap Analysis, provide insight into funding solutions, undertake the financial analysis, provide the operational analysis, will lead the public outreach process, and will author most of the final report.

Sam Tennant - Broadband Study Technical Analyst

Sam will lead the team in the analysis of broadband mapping, data acquired from provider interviews, provider coverage, and on-site field review of provider technology.

Key Staff Background Information

<p>Director: Consulting Services – Tim Arbeiter</p> <p>Education</p> <p>M.A. – Guidance and Counseling, SE Missouri State University B.S in Business Administration & Finance, SE Missouri State University</p> <p>Specialization</p> <p>Broadband Policy Broadband Funding Programs Public Private Partnerships Economic and Community Development Strategies</p> <p>Office Location: Lee’s Summit, MO Years of Experience: 21</p>	
<p>Work Experience</p> <p>Mr. Arbeiter’s background in government and non-profit sectors allows Tim to assist in helping clients stay up to date on legislative funding at the federal and state levels, consult with public and private stakeholders on win-win partnerships for broadband expansion, and devise actionable steps that will propel implementation efforts. Tim is a member of the International Economic Development Council (IEDC). Previously, before joining the Finley team, Tim served as the Director of Broadband Development for the State of Missouri. Tim served on the NTIA State Broadband Leaders Network and the National Governors Association Broadband Advisors Council during his tenure.</p>	

<p>Owner – CCG Consulting – Doug Dawson</p> <p>Education</p> <p>B.S in Accounting; University of Maryland</p> <p>Specialization</p> <p>Financial Feasibility Analysis Broadband Funding Strategies Public-Private Partnerships ISP Operations</p> <p>Office Location: Asheville, NC Years of Experience: 43</p>	
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Work Experience

CCG Consulting was founded by Doug Dawson in 1997. Since then, the company has grown to become the largest telecom consulting company in the country regarding clients. Since the inception of CCG, Doug has worked with over 1,200 clients, including a mix of fiber overbuilders, telcos, cable companies, cooperatives, municipalities, and wireless companies.

CCG Consulting is a full-service consulting firm, meaning CCG can help with a broad array of services that are needed by broadband providers, including feasibility studies, market research and surveys, regulatory analysis, engineering, project management, and implementation. CCG works for clients of all sizes, from those that serve farms up to NFL cities. This wide range of client work allows CCG to stay current and on the cutting edge of technology to anticipate the needs of tomorrow.

Asst. Director: Consulting Services – Sam Tennant

Education

M.S. – Data Science and Analytics, University of Missouri
B.S. – Dietetics, University of Central Missouri

Specialization

Geospatial Data Science and Visualization
Project Management
Data Engineering and Manipulation



Office Location: Kansas City, MO **Years of Experience:** 6

Work Experience

Mr. Tennant brings a diverse background of geospatial data management and manipulation and an understanding of rural broadband's challenges to Finley clients. Sam's experience with various datasets, systems, and stakeholders allows Sam to extract impactful datasets and information for Finley team members and community stakeholders. Before joining the Finley team, Sam worked within the University of Missouri Extension system, dissecting the intersection of broadband and other critical issues such as health, education, and the rural economy.

[Summary of Previous Work](#)

Our Team's Client Name	Project Name
Rural Electric Convenience Cooperative, IL	Electric Utility Broadband Studies
Sangamon City, IL	Broadband Needs Assessment, Feasibility
Champaign City, IL	Broadband Plan Report
Antelope Valley, CA	Broadband Feasibility Study
Oakland City, MI	Broadband Feasibility Study
City of Joplin, MO	Broadband Gap Study, Strategy, Procurement
Farmington & Farmington Hills, MI	Feasibility Report for a Community Network
City of Cortez, CO	Fiber-to-the-home (FTTH) Study

Mark Twain Regional Council of Governments, MO	Multiple City Broadband Feasibility Studies
Lincoln City, MO	Broadband Feasibility Study
City of Ellensburg, WA	Broadband Study
City of Fountain, CO	Broadband Study
Door City, WI	Broadband Study
Sierra City, NM	Broadband Study
Nicollet City, MN	Broadband Study
Waseca City, MN	Broadband Study
Cole City, MO	Broadband Study
Chaves City, NM	Broadband Study
Cibola City, NM	Broadband Study
Labette City, KS	Broadband Study
Brazos City, TX	Broadband Study
City of Lansing, MI	Electric Utility Broadband Studies
City of Clarksville, AR	Electric Utility Broadband Studies
City of Siloam Springs, AR	Electric Utility Broadband Studies
City of West Memphis, AR	Electric Utility Broadband Studies
City of Hope, AR	Electric Utility Broadband Studies
Gascosage Electric Cooperative, MO	Electric Utility Broadband Studies
Barry Electric Cooperative, MO	Electric Utility Broadband Studies

Customer References

Sangamon City, Illinois

Project Contact: Abby Powell

Contact Title: Director of Business Development

Contact Phone: 1-217-679-3500 Ext. 102

Contact Email: APowell@ThriveinSPI.org

Broadband Feasibility Analysis and Report for Sangamon City, IL, through the Springfield Sangamon Growth Alliance (SSGA). SSGA funded the Feasibility Study, with participation from multiple City stakeholders, to understand the state of broadband in Sangamon City and the cost of providing broadband solutions.

Finley Engineering and CCG Consulting completed a Broadband Feasibility Study with the following work elements: Broadband Market Research, Gap Analysis, Competitive Review, Engineering Design, Strategic Planning, Financial Feasibility, Funding Options, and a Final Written Report and presentation to public bodies and stakeholders.

Sangamon City has engaged Finley and CCG Consulting for follow-on consulting assistance to conduct an RFI process to determine broadband providers' capability and willingness to fill distinct gaps.

Rural Electric Convenience Corporation (RECC)

Project Contact: Sean Middleton

Contact Title: President/CEO

Contact Phone: 217-438-6197

Contact Email: sean.middleton@recc.coop

Broadband Feasibility Analysis and Report for RECC's leadership and board of directors as they are contemplating building and offering broadband services to its cooperative members. RECC funded the Feasibility Study, with



participation from multiple stakeholders, to understand the state of broadband in the cooperative territory (spanning over a five-City region) and the cost of providing broadband solutions.

Finley Engineering and CCG Consulting completed a Broadband Feasibility Study with the following work elements: Broadband Market Research, Gap Analysis, Competitive Review, Engineering Design, Strategic Planning, Financial Feasibility, Funding Options, and a Final Written Report and presentation to public bodies and stakeholders.

RECC has engaged Finley and CCG Consulting for follow-on consulting and funding assistance in grant writing, financial modeling, and advocacy with state and federal funding agencies.

City of Joplin, Missouri

Project Contact: Troy Bolander

Contact Title: Director of Planning, Development, and Neighborhood Services

Contact Phone: 417-624-0820 ext. 1510

Contact Email: TBolander@Joplinmo.org

Broadband Feasibility Analysis and Report for the City of Joplin, Missouri. Joplin funded the Feasibility Study, with participation from multiple City stakeholders, to understand the state of broadband in the City and the cost of providing broadband solutions.

Finley Engineering and CCG Consulting completed a Broadband Feasibility Study with the following work elements: Broadband Market Research, Gap Analysis, Competitive Review, Engineering Design, Strategic Planning, Financial Feasibility, Funding Options, and a Final Written Report and presentation to public bodies and stakeholders.

Joplin has engaged Finley and CCG Consulting for follow-on consulting assistance to conduct an RFP process to determine broadband providers' capability and willingness to fill city-wide gaps. This project is currently moving towards completion.

[Resumes of Key Team Members:](#)

Attached as an addendum to this proposal.

Fee Proposal for the 2024 Harvard Broadband Feasibility Study

Please find below our pricing; we present these tasks and costs as an all-inclusive proposal and shall not exceed this amount. Our team does not request any money upfront and bills the city monthly as tasks are completed. We will travel at cost with no markup.

Broadband Feasibility Study

Demand for Broadband	
Technical Analysis	\$ 5,600
Market Research	\$18,000
Gap Analysis	\$ 2,000
Engineering Design Options and Cost Estimate (PON & Active E)	\$ 8,350
Broadband Financial Models, Funding	\$12,250
Operational Analysis	\$ 4,000
Capital Funding Options	
Written Strategic Plan	\$11,300
Presentation of Results	\$ 3,700
Travel-Onsite-Incidental Expenses	<u>\$ 4,400</u>
Total Project Cost	\$69,600

#2 – Phase 2: Community Engagement (Estimated)

Community Engagement Plan	\$ 1,500
Community Engagement Materials	\$ 6,000
Public Presentations	\$ 9,000
Travel-Onsite-Incidental Expenses	<u>\$ 8,800</u>
Total Project Cost	\$25,300

Timothy P. Arbeiter

816-944-9113 ♦ tarbeiter@finleyusa.com

CORE COMPETENCIES

- ◇ Client Focused
- ◇ Change Agent
- ◇ Collaborative
- ◇ Partnership Development
- ◇ Management & Administration
- ◇ Mediating Problems
- ◇ Servant Leader

SUMMARY OF CAPABILITIES:

Relationship Builder – earns trust and respect before influencing and advocating.

Planning – able to see a vision, cast the vision and lead the details and execute.

Solutions Oriented – focus on achieving the desired outcome(s) that advance strong communities.

Adaptable & Resourceful – opportunities and challenges met with critical thinking ability to mobilize partners, empower stakeholders, and access resources.

BROADBAND, ECONOMIC, & COMMUNITY & CHAMBER DEVELOPMENT EXPERIENCE

Finley Engineering, Inc.
Director of Consulting Services

Lamar, Missouri
January 2022 – Present

Job Responsibilities:

- ◇ Lead client discussions, manage programs, timelines, and interactions to meet the broadband goals of a diverse group of clients.
- ◇ Assess project needs and delegate to team members to accomplish key tasks, including, required datasets, designs, and funding programs to achieve project success.
- ◇ Manage relationships with client/Finley stakeholders for cohesiveness to the project.
- ◇ Manage the funding application stakeholders for the completion of application segments.
- ◇ Represent Finley at conferences as a subject matter expert for broadband expansion.
- ◇ Provide overarching review and compilation of broadband feasibility studies and funding applications.
- ◇ Lead the Consulting Services Unit by setting the strategic direction and supervising the team of broadband experts assembled to assist clients in connecting more Americans to high-speed internet.

Missouri Department of Economic Development
Director of Broadband Development

Jefferson City, Missouri
July 2018 – Present

Job Responsibilities:

- ◇ Collaborated with department leadership on the process, which led to Governor Parson's recent \$400 million ARPA commitment for broadband expansion. The process included cabinet-level roundtables and culminated with the identification of 14 prioritized projects/programs (67% infrastructure, 28% adoption, and 5% technical assistance). The full plan will be presented to the Missouri General Assembly in January 2022,
- ◇ Secured the inclusion of broadband priorities within the state's federal programs and requests. Recent successes include the Community Development Block Grant Program recognizing broadband activities (CDBG-CV) and a \$613,750 grant award from the Economic Development Administration (EDA) for regional broadband feasibility studies,
- ◇ Created and launched four grant rounds for providers to access state and federal resources to deploy broadband infrastructure (inaugural state grant program, two rounds of CARES Act funding, and Missouri's NTIA Covered Partnership). Total impact includes \$5.5 million of public support leveraging \$15.1 million in private investment connecting 6,950 households (78% of projects deploying Gigabyte service),
- ◇ Facilitated the deployment of \$20.1 million of CARES resources led by five state agencies within eight months to

expand connectivity and access to Missouri's schools (\$7M), universities (\$8.3M), libraries (\$800K), and health clinics (\$4.0M),

- ◇ Developed broadband policy and legislation for the Governor's Office. Successfully included broadband as an eligible activity in local development districts (broadband improvement, community improvement, and neighborhood improvement),
- ◇ Hosted bi-weekly sync-up meetings with key state departments, economic, community, and business organizations on broadband expansion efforts,
- ◇ Monitored broadband funding programs and hosted technical webinars,
- ◇ Advocated for more state-friendly broadband expansion legislation and funding with federal delegations,
- ◇ Coordinated public outreach, communications efforts, and hosted two broadband summits for stakeholders and broadband providers,
- ◇ Coordinated with the Office of Administration's Geospatial Team to create an internal GIS broadband platform (pre-dating the NBAM) to assess state investments against coverage and previously funded areas, and
- ◇ Traveled extensively to counties and communities as they underwent broadband planning efforts and celebrated broadband milestones.

**Lee's Summit Chamber of Commerce
President**

Lee's Summit, Missouri
July 2016 – June 2018

Key Chamber Highlights:

- ◇ Chamber executive *representing 1,000+ members, nine committees, and a team of nine staff members,*
- ◇ Managing contract for services for community branding and tourism efforts for the City of Lee's Summit,
- ◇ Empowered professional staff to independently lead their respective committees, initiatives, and large events,
- ◇ Facilitated a new three-year strategic plan focusing on *membership value, business development, advocacy, workforce development, and entrepreneurship,* and
- ◇ Managed the organization's \$1.3 million-dollar annual budget.

**Cape Girardeau Area Chamber of Commerce
Vice President for Community Development**

Cape Girardeau, Missouri
May 2006 – June 2016

Key Chamber Highlights:

- ◇ Executive team member *representing 1,400 members, seven standing committees,* and executed contract for services for area *economic development and tourism* efforts,
- ◇ Spearheaded the creation of the organization's *strategic plans* focusing on *membership value, advocacy, infrastructure, entrepreneurship, and enhancing retail position,*
- ◇ Assisted in budget preparation (\$750,000 Annual Budget) and redesigned membership and partnership (top donor levels) investment structures to increase value and revenue,
- ◇ Charged with implementing the area's *Economic Development Strategic Plan.* Strategies focused on business retention, infrastructure, entrepreneurship, and talent development,
- ◇ Oversaw the redevelopment priorities for the Chamber, facilitated conversations with the private sector, and sought opportunities to advance identified priorities,
- ◇ Led the Downtown Development Team, with its mission to create and implement a new five-year strategic plan. One of ten inaugural communities selected by the Governor to receive state assistance in planning efforts,
- ◇ Served as a technical advisor and author of a new Community Improvement District and the city's first Tax Increment Financing District,
- ◇ *Secured \$4.3 million for eighteen different area projects and initiatives* utilizing grants and tax credit programs,
- ◇ Instituted a for-profit Community Development Corporation consisting of ten financial institutions,
- ◇ Served on the team appointed to research and prioritize the area's next hospitality/tourism destination,
- ◇ Facilitated efforts in entrepreneurship development, including research and plan development; co-host 1 Million Cups; served as a resource for start-ups; and collaborate with the region's first co-working space,

- ◇ Led the effort for Cape Girardeau County to be designated a *Certified Work Ready Community* by the state of Missouri, an effort to elevate ACT's National Career Readiness Certificate program,
- ◇ Served as a partner for a \$1 million grant targeted for high school and college-age individuals to attain accelerated certificates or degrees in health, manufacturing, and agriculture,
- ◇ Event management experience ranging from press conferences, business trainings to community forums, and
- ◇ Served in the absence of the President & CEO.

Old Town Cape, Incorporated
Executive Director

Cape Girardeau, Missouri
December 2004 - May 2006

Key Director Highlights:

- ◇ Executed the mission and goals to *advance economic and revitalization efforts*,
- ◇ Represented *300 downtown businesses to the community* and administered an annual budget of \$160,000+,
- ◇ Strengthened relationships and advocated for downtown priorities with the leadership of the city, Planning & Zoning Commission, Chamber of Commerce, and Southeast Missouri State University,
- ◇ *Supervised four standing committees* utilizing the Main Street Four Point Approach (Organization, Design, Promotions, and Economic Restructuring) with over 70 volunteers,
- ◇ Managed and *received accreditation from the Missouri Main Street/National Trust for Historic Preservation*,
- ◇ *Authored and awarded a \$185,000 Department of Transportation Enhancement Grant* for streetscape improvements along a downtown corridor.

PROFESSIONAL INVOLVEMENT

- | | |
|--|----------------|
| ◇ NTIA State Broadband Leaders Network | State Designee |
| ◇ National Governor's Association Broadband Advisory Council | Appointee |
| ◇ Missouri Economic Development Council | Member |
| ◇ International Economic Development Council (IEDC) | Member |
| ◇ National Rural Economic Developers Association | Member |

RECOGNITIONS & HONORS

- | | |
|---|-------------|
| ◇ Missouri Leadership Academy Graduate | Spring 2019 |
| ◇ Past President, Missouri Economic Development Council | 2018-2019 |
| ◇ Certified Economic Developer (CEcD), IEDC | 2013-2019 |
| ◇ Graduate, US Chamber, Institute of Organization Management (IOM) | Winter 2010 |
| ◇ Charles L. Hutson Visionary Award Recipient, Old Town Cape | Spring 2010 |
| ◇ Past President, Chamber of Commerce Executives of Missouri | 2010-2011 |
| ◇ Leadership Missouri Graduate, Missouri Chamber of Commerce | Summer 2007 |
| ◇ Past Board of Director, Board of Education, Cape Girardeau Public Schools | 2004-2007 |

PROFESSIONAL WORK EXPERIENCE

- | | |
|--|--|
| Southeast Missouri State University
Assistant Director, University Center | Cape Girardeau, Missouri
September 2002 - December 2004 |
| Michigan State University
Assistant Manager, University Activities Office | East Lansing, Michigan
January 2001 - July 2002 |

EDUCATION

- | | |
|--|--------------------------|
| Southeast Missouri State University | Cape Girardeau, Missouri |
| Master of Arts – Guidance and Counseling – Student Affairs | |
| Bachelor of Science in Business Administration – Finance | |

Douglas A. Dawson is the President and owner of CCG Consulting. Mr. Dawson's primary responsibilities at CCG are helping clients realize their potential through detailed needs assessment and strategic planning. Mr. Dawson has helped devise strategies enabling clients to survive and thrive during the recent telecommunications industry slowdown. Mr. Dawson brings a broad background to his work with experience in telephone accounting, engineering, regulatory and business planning.

Mr. Dawson is in charge of all client consulting at CCG. CCG has been involved in a wide array of projects since its inception. At CCG Mr. Dawson has been involved with a wide array of consulting projects. Some of the larger projects that have been directed by Mr. Dawson include:

- Financial Business Plans. The creation of nearly 200 financial business plans for clients. A significant proportion of these business plans have gone from concept to profitable working entity.
- Broadband Implementation. Under Mr. Dawson CCG has helped clients choose, design and deploy broadband solutions to deliver voice, video and data using a number of technologies including coaxial cable, copper and FTTH.
- Municipal Networks. Mr. Dawson has helped a number of Cities and Counties devise strategies to solve telecom problems. Solutions have included building voice and data networks to serve the City government; devising strategies for economic development; devising strategies for managing rights-of-ways and City assets; and constructing competitive networks to serve end user customers. Mr. Dawson also helps municipalities in solving problems such as lack of broadband, inadequate local free calling and recalcitrant service providers.
- University Networks. CCG has assisted universities into devising strategies to replace ebbing revenues from traditional telephone sources. Solutions have included partnering with wireless companies to enhance wireless coverage on campus, installing voice and data platforms that can serve a wider local community, and partnering with other entities to lower telecom costs.
- Raising Money. Mr. Dawson has assisted many clients in obtaining the financing needed to implement their desired telecom solutions.
- Costing and Pricing. Mr. Dawson assists clients in choosing the right products for their market. We help clients to set prices, choose bundles of products and create products that differentiate them in the marketplace. Mr. Dawson also helps clients understand their costs and can help clients understand the margins on products and to devise strategies to maximize profitability.
- Transport Networks. Under Mr. Dawson CCG has assisted in the launch of several transport networks. Such networks achieve revenues through the sale of dark fiber and bandwidth. Additionally, networks can achieve profitability with centralized tandem switching and related products.
- Mergers and Acquisitions. Mr. Dawson has assisted clients in the buying, selling and merger of entities. Mr. Dawson is a specialist in valuation and contract negotiation.
- Partnering. Mr. Dawson has put together a number of partnerships between telecom entities.

- Professional Testimony. Mr. Dawson assists clients by testifying on a broad range of telecom topics.

Mr. Dawson received a Bachelor of Science in Accounting from the University of Maryland in 1977, and received a Masters of Mathematics from the University of California at Berkeley in 1985.

Sam Tennant

816-590-7520 • E-Mail: s.tennant@finleyusa.com

Education

Master of Science, Major: Data Science & Analytics, University of Missouri May 2020

Bachelor of Science, Major: Dietetics, University of Central Missouri May 2017

Experience

Assistant Director Consulting Services, Finley Engineering, KCMO 2022-Present

- Lead client discussions and manage programs, timelines, and interactions with clients to meet the broadband goals of a diverse group of clients
- Review project needs for assembly of required datasets, designs, and funding program review so that skill-specific associates can be identified for participation in the project
- Provide review and compilation of Feasibility Study reports and compilation efforts for Broadband Funding Applications

Data Engineer II, Kansas City Life Insurance, KCMO 2021-2022

- Responsible for the maintenance, improvement, cleaning, and manipulation of data in the business's databases
- Work with the business's software engineers, architects, actuaries, and other quantitative analysts to understand and aid in the implementation of data requirements, analyze performance, and troubleshoot any existent issues
- Define and build the data pipelines that will enable faster, better, data-informed decision-making within the business

Broadband Initiative Manager, University of Missouri System, Columbia 2019-2021

- Responsible for preparing financial, programmatic, enrollment, and evaluation data, records, and reports
- Managed a Steering Committee and team of researchers through community-driven broadband research projects
- Assisted the 4 UM System Schools to deliver programs to professionals serving communities with limited resources

Project Support Coordinator, CARES - MU Extension, Columbia 2017-2021

- Managed, scheduled, and organized assigned projects, ensuring smooth completion of project tasks
- Communicated primary concerns to both clients and developers on technical priorities to deliver the best product
- Provided demonstrations to potential clients, Identified and analyzed system requirements, and defined project scopes of work

Skills and Knowledge

- Programming Languages: SQL, Python, R
- WordPress, Excel, Microsoft SQL Server, SSIS, SSRS, Visual Studio, Microsoft Teams, PgAdmin, ESRI
- Communication, Leadership, and Project Coordination

Phillip (Phil) Sharps
Email: psharps@outlook.com
Mobile #: 501-766-2463

Professional Experience

Finley Engineering Manager – Technology Services

**May 2023 – Present
Clarksville, Arkansas**

- Oversee the technological and high-level design aspects of the Consulting Services Team, including but not limited to feasibility studies, strategy design, and grant submissions.
- Serve with other Consulting Services professional staff to meet individual client needs and requirements and adapt to new client requests during the project cycle. Be one of the leading technology experts available to clients and provide regular consults and direction.
- Read, analyze, & understand specific project scopes of work, translate them into design requirements, and delegate action steps to Consulting team members and/or partners.
- Research the client’s existing network design and deployment method, determine system extension priorities and modes, and research effects on surrounding cable plant and node placement sizing (or wireless footprints, if applicable). Oversee the field review process to determine the type of broadband infrastructure assets (or lack thereof) within the identified project area. New team members may need to be hired to perform this task as project demand may warrant. Supervision of field staff may be required. Travel and multi-day onsite work to conduct field reviews will be required for this position.
- Be able to perform moderate GIS, design, and broadband coverage data analytics utilizing ESRI Software. Possess an ability to effectively convey in written format the status of broadband coverage, competitive landscape, opportunities for expansion, description of available and emerging technologies, and impacts realized when utilizing varying technologies to connect those without broadband.

Clarksville Connected Utilities Manager – Technical Services

**April 2018 – April 2023
Clarksville, Arkansas**

- Oversee all IT functions of the company.
- Oversee the ISP and FTTx project (build-out and provisioning)
- Maintain Interconnects and FTTx
- Maintain company SCADA system.

CT&T Vice President - Inside Plant Engineering

**September 2015 – April 2018
North Little Rock. Arkansas**

- Built ISP Engineering department to a 15-man team with Project Management, Engineering, EF&I, Test & Turn-up, for multiple men to one-person jobs
- Conducting Engineering services for various companies and manufactures, mostly in the Telecom Industry
- Grossed \$1M first full calendar year, with 30% overall profit.

Millennium Utility Consultants / Tritechne Lead - Inside Plant Engineering / Project Manager

**April 2015 – September 2015
Conway. Arkansas**

- ISP Engineering for ADTRAN / Windstream projects
- CAF Project Manager for AR, IA, TX Windstream Projects

Osmose Communications Services, LLC. Supervisor - Inside Plant Engineering

**October 2013 – April 2015
Conway. Arkansas**

- ISP Engineering for CenturyLink

- Lead for TL9000 Certification

**Windstream / TEKSystems
Contract Engineer**

**November 2010 – October 2013
Little Rock, Arkansas**

- Lead on the Texarkana VDSL2 project
- Lead on the Sugar Land VDSL2 project
- Lead on the Sugarland / Winne region
- Covering the Sugarland / Winne region Bandwidth Upgrade Projects
- Cisco 15454, Fujitsu FLM and FLASHWAVE, CALIX C Series and E7, CYAN DWDM, MetaSolv

**Principle Solutions Group: DukeNet
Independent Consultant**

**May 2010 – October 2010
Charlotte, North Carolina**

- Led and assisted with Test & Turn-up of Ethernet with Circuit Design and Provisioning multiple customer and equipment manufactures.
 - Telamon - Cisco 15454 DWDM upgrades for AT&T
 - Meriton - 7200 / 6400 / 5400 / 3300 / Fiber Testing for Toronto Hydro, RBC, Marcatel, PalmettoNet
 - Ciena: Core Stream / Core Director / Wavesmith for AT&T
 - Fujitsu - FLM / FLASHWAVE 4000 & 7000 series / Fiber Testing for Time Warner, AT&T, Verizon, Comcast, Qwest, LightCore, Alltel, Network Communications

**Telecom Testing Solutions
Independent Consultant**

**November 2004 – May 2010
Little Rock, Arkansas**

- Led and assisted with Project Management, Engineering, EF&I, Test & Turn-up, multiple men to one-person jobs multiple contract companies, and equipment manufactures.
 - Telamon - Cisco 15454 DWDM upgrades for AT&T
 - Meriton - 7200 / 6400 / 5400 / 3300 / Fiber Testing for Toronto Hydro, RBC, Marcatel, PalmettoNet
 - Ciena: Core Stream / Core Director / Wavesmith for AT&T
 - Fujitsu - FLM / FLASHWAVE 4000 & 7000 series / Fiber Testing for Time Warner, AT&T, Verizon, Comcast, Qwest, LightCore, Alltel, Network Communications

**ALLTEL Communications
Manager - Network Operations**

**February 2002 - August 2004
Little Rock, Arkansas**

- Led a 5-person operations team responsible for 10k miles of IXC fiber routes covering 22 states, which during my tenure, achieved and maintained a reliability rate of 96%, never missed reliability goals.
- Reduced MTOF (Mean Time of Operational Failure) by 15%, which was more than twice that of the goals set forth by management.
- Reduced overtime to no more than 10% through off shifting of scheduled maintenance, utilizing time management techniques, and logistical flow charts to minimize dispatches.
- Reduced cost of test equipment by \$2m and card repair by \$1.5m over 2 years through vendor negotiations and strategic deployment of resources.
- Published operation procedural documents for network troubleshooting and maintenance.
- Developed VOIP enterprise plan.
- Supervised troubleshooting and resolving DWDM, OC-192, and OC-48 for the ALLTEL IXC network achieving a less than 3-hour MTTR (Mean Time to Resolution), which was half the industry average.

**Fujitsu Network Communications
Sales Engineer**

**February 1998 - December 2001
Little Rock, Arkansas**

- Designed, developed, and provided technical assistance for sales and customer networks with Fujitsu Voice and Data products DS-0 through OC-192 (UPSR, 2F BLSR, & 4F BLSR), 320G, OADX, DWDM, ADSL, and Network Management Platform.
- Received numerous accommodations from sales and management.
- Opened sales office to support ALLTEL and equipment resellers.
- Supported sales with bookings in excess of \$ 21.5m.
- Provided suitcase training to all assigned accounts scheduled by sales manager.

Technical Support Engineer

Richardson, Texas

- Provided certified assistance to customers with installation, test and turn-up of Fujitsu Voice and Data products DS-0 through OC-192 (UPSR, 2F BLSR, & 4F BLSR), DWDM, ADSL, and Network Management Platform.
- Bellcore certified Installer.
- Technical assistance for customer calls, technical support and presentations with sales.
- Wrote MOP (Method of Procedure), and PCN (Product Change Notice).
- Assisted with writing standards for PML, and ISO 9002 certification.
- Supervised troubleshooting and resolving issues with Dynegy nationwide 320G DWDM network with specific supervision of Texarkana, TX to Nashville, TN leg.

MCI Telecommunications Corporation
Transmissions Standards Engineer

December 1993 - February 1998
Richardson, Texas

- Engineered, wrote, and trained transmission standards and procedures for various transmission equipment.
- Monitored and controlled various transmission units.
- Standards included remote turn-up, surveillance platforms, and transmission equipment for local and long-distance service; i.e. Fujitsu FLEXR+, Fujitsu FLM products, Nortel NetMan, Channel banks, and line monitoring units.

Inside Plant Construction Engineer

Richardson, Texas

- Supervised, installed, and provisioned transmission equipment; i.e.: Nortel and Fujitsu OC-48 and OC-12, Fujitsu OC-3, Alcatel 3/1 DXC and DSC 1/0 DXC.
- Installation of and provisioning for fault alarm equipment; i.e. AI Switch, Xyplex, Harris WS2000, Cisco Routers, and DSU's.
- Ordered, coordinated, and tracked test equipment for all MCImetro transmission sites.

Database Support

Richardson, Texas

- Built and maintained database for tracking the project library, maps, fiber, conduit, and copper cable of MCImetro.
- Assisted with data clean up and effectively applied Microsoft Word, Microsoft Access, and Microsoft Excel.

Education

Brookhaven Community College
Associate of Business Administration

Farmers Branch, Texas
May 1998

Military

United States Marine Corps

1989 - 1993

Certifications

Applied Innovation	AI 180 Switch	1994
Ciena	CoreStream	2008
	CoreDirector	2008
Anritsu	MT9083A8 Single Mode Fiber OTDR	2007
GN Nettest	CMA4000 OTDR	2007
Cisco	15454	2008
	310	2008
EXFO	FTB-400	2007
	FOT-300	2007
Fujitsu	FLM 6/150/600/2400 Turn-Up & Maintenance Course C-901	1998
	Basic Installation 1998	1998
	FLASH 192 Turn-Up & Maintenance Course C-646	1998
	FLM Engineering Course C-611	1995
	FLASHWAVE 7600 / 7200 Turn-Up & Maintenance Course	2003
	FLASHWAVE 4500 Turn-Up & Maintenance Course	2003
	Advanced Transport Maintenance Course C-902	1998
	FACTR Turn-Up & Maintenance Course C-630	1998
	Advanced Transport Maintenance Course C-902	1998
	FLEXR+ Operation Course C-664	1998
	Speedport Turn-Up & Maintenance Course C-628	1998
	FLASHWAVE 7120 Turn-Up & Maintenance Course	2001
	SWBT TP76300 Installation Level II	2001
	FLASH 150 ADX Turn-Up & Maintenance Course C-722	2001
	Sales Training	2000
Professional Selling Skills	2000	
George Mason University	Management and Process Mapping	1998
JDSU	T-BERD 310	1998
	MTS 5100	2006
	2209	2003
	2310	2005
Meriton / Xtera	6400 Turn-Up & Maintenance	2006
	7200 Turn-Up & Maintenance	2006
	3300 Turn-Up & Maintenance	2006
MetaSolv	M6	2011
MCI	Fiber Splicing	1994
New Fields	Train the Trainer on Asbestos Awareness. Floor Tile Drilling	2001
Nortel	Nortel 5200 - OPTERA Metro	2004
	Classic OC48	1996
PE.fiberoptics	ONA600	2006
	PMD440	2003

References

Available upon Request

Name	Travis Armstrong
Position	Associate Consultant
Degree/Education	<ul style="list-style-type: none"> • Masters of Finance, Colorado State University – Global Campus – 2020-2022 • Bachelors of Science Biology and Chemistry, Metropolitan State University of Denver – 2014-2019

Summary of Qualifications

Experienced broadband analyst. Skilled in financial modeling, market research/analysis, data gathering/analysis/visualization, GAP analysis, budgeting, P&L statements, grant writing.

Relevant Experience

CCG CONSULTING, LOVELAND, CO, JUNE 2021 TO PRESENT

ASSOCIATE CONSULTANT

- Performs the underlying analysis for broadband feasibility study that includes product and price research, broadband coverage, public surveys, broadband speed tests, and market demographics.
- Analyzes raw data using GIS mapping software and database tools to create maps, graphs, and charts to document broadband usage and trends. Creates shapefiles to best display complex data for reports.
- Creates complex financial models to analyze the potential operating characteristics and possible profitability of broadband business plans.
- Performs a GAP analysis to define broadband needs for communities.
- Gathers, reviews, and analyzes data using SQL analyze and understand large data files.
- Performs multi-team collaboration with consulting partners and clients.
- Helps to create broadband grant application to find funding for rural areas with poor broadband.

AMERISAVE MORTGAGE CO, DENVER, CO, AUG 2020 TO MAY 2021

JUNIOR UNDERWRITER

- Headed all processing and analysis of all documentation necessary from loan origination to closing.
- Conducted quality checks of Junior Underwriter’s work to ensure consistency and accuracy of work performed.
- Worked with customers to ensure all documents were completed in a timely fashion.
- Participated in credit checks of potential customers to ensure credit worthiness based on internal metrics.
- Calculated debt-to-income ratios of potential clients to guarantee they met internal standards.

LIT NUTRITION, LONGMONT, CO

ACCOUNTING CLERK, APR 2018 TO AUG 2020

- Generated P&L statements, financial reports, and payroll. Headed the accounts payable and receivable process.
- Directed and completed accurate preparation of journal entries detailing financial transactions.
- Produced ad hoc reports at clients’ request.
- Conducted cost analysis, market research, and developed budgets for new product development.

PREVIOUS EXPERIENCE

SEPTODONT, LOUISVILLE, CO, JUL 2013 TO APR 2018 | **COMPOUNDING OPERATOR**

BALOUGH GARDENS, DENVER, CO, OCT 2010 TO JUN 2013 | **FIELD SUPERVISOR**

ARMSTRONG ENVIRONMENTAL SERVICES, INC., DENVER, CO, JUL 2005 TO SEP 2010 | **ACCOUNTING CLERK**