


AGENDA REPORT

DATE: September 3, 2019

TO: Mayor and City Council

FROM: Sean P. Quinn, Interim City Manager 

SUBJECT: Resolution 2019-200 of the City Council of the City of Fairfield Authorizing Entering Into a Consultant Services Agreement with Magellan Advisors for Master Licensing Agreement and 5G Fiber Master Plan Consulting

RECOMMENDED ACTION

Adopt Resolution.

STATEMENT OF ISSUE

Cellular carriers continue to want to use the City's infrastructure for their customers, currently primarily for installation of small cells for 5G connectivity. In addition, the City is interested in providing the best possible infrastructure to meet our future technology needs and attract new businesses. Fiber is a key component in addressing this interest. The City needs both a Master Licensing Agreement to govern and obtain compensation for cellular carriers' use of City assets and a Fiber Master Plan to set guidelines for future fiber-optic development across Fairfield. Magellan Advisors can provide both services.

DISCUSSION

The City of Fairfield currently does not have a standard agreement for the management and design of pole attachments and conduit use throughout the City, leaving the matter of aesthetics, dig approach, and shared use/services to the cellular carriers to decide. As the City receives requests to develop public cellular networks and implement small cells and 5G connectivity, it is important that the City maintains a controlled standard for City poles in order to preserve the City's rights to public infrastructure/right-of-way and allow for the interconnection of City facilities in the future. Establishing a Master Licensing Agreement to govern cellular carriers' use of City assets will establish a nexus for future developer agreements.

Additionally, a Fiber Master Plan will help the City to understand the needs of businesses, assist in attracting and retaining businesses to Fairfield, and set important guidelines for future fiber-optic development across Fairfield.

Magellan Advisors is a leading telecommunications and broadband consulting firm ready to coordinate

with the City Manager's Office (including the IT Division), City Attorney's Office, and Public Works Department to develop a Master Licensing Agreement and Fiber Master Plan, along with the supporting policy needed to achieve the City's 5G cellular service and fiber-optic deployment goals. In addition to providing comprehensive broadband planning, implementation and project management services, Magellan Advisors will deliver to the City a Master Licensing Agreement for 5G Small Cells, including related ordinances, and a Fiber Master Plan containing the blueprint for development of City infrastructure to interconnect all corridors with one another. This will serve municipal and community needs, support economic development, support identified smart city initiatives, and prepare the City for the gigabit generation. The services provided by Magellan directly address the Small Cell/5G Master Plan Capital Improvement project as directed by Council Work Plan objective 2A-11, Inter-Facility Connectivity.

FINANCIAL IMPACT

The Agreement limits the services to a not-to-exceed amount of \$118,190 through the completion of the Scope of Services. The costs are funded by the Information Technology Computer Services Fund (522-99-531-8441).

CITY COUNCIL WORKPLAN

Community Safety

Community Infrastructure

Quality of Life

*Financial and Operational
Sustainability*

Economic Development

*Travis Air Force
Base*

City Council Goal this item supports:

Financial and Operational Sustainability

Project:

#2A.11, Inter-Facility Connectivity

PUBLIC CONTACT/ADVISORY BODY RECOMMENDATION

N/A

ALTERNATIVE ACTION

The City could choose not to hire Magellan Advisors and seek a different consultant for the Fiber Master Plan project. However, given that Magellan offers consultation in addition to a final draft of the Fiber Master Plan, it would be challenging to find another provider that would meet the project requirements with the same support and expertise offered by Magellan Advisors.

Failure to act would result in a loss of control over the aesthetics of pole attachments that the various cellular carriers will deploy to support 5G/Small Cell public cellular networks within City boundaries. Without a Fiber Master Plan, the City will continue to be challenged to connect all City facilities and will continue to implement the existing Intelligent Traffic System (ITS). Furthermore, the City would be unable to leverage a Public Private Partnership to provide the high-speed connectivity which attracts high-tech, Research & Development (R&D) and similar-type businesses.

STAFF CONTACT

Eudora Fleischman, Sr. IT Analyst
esindicic@fairfield.ca.gov
707-428-7527

COORDINATED WITH

City Attorney's Office, Community Development Department, Public Works Department

ATTACHMENTS:

Proposed Resolution

Proposed Consultant Services Agreement

REVIEWERS:

Reviewer	Action	Date
Puccinelli, Ron	Approved	8/13/2019 - 7:10 PM
Snideman, Laura	Approved	8/19/2019 - 8:22 PM
Dominguez, Yessika	Approved	8/20/2019 - 5:38 PM
Dominguez, Yessika	Approved	8/29/2019 - 4:08 PM

CITY OF FAIRFIELD

RESOLUTION NO. 2019 - 200

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FAIRFIELD AUTHORIZING ENTERING INTO A CONSULTANT SERVICES AGREEMENT WITH MAGELLAN ADVISORS FOR MASTER LICENSING AGREEMENT AND 5G FIBER MASTER PLAN CONSULTING

WHEREAS, the City desires to establish a Master Licensing Agreement and Fiber Master Plan to govern cellular carriers' use of City assets and attract and retain business to Fairfield; and

WHEREAS, Magellan Advisors provides a comprehensive consulting service and is qualified to develop policies and organizational structures for the Master Licensing Agreement and Fiber Master plan; and

WHEREAS, the City desires to enter into a 12-month Consultant Services Agreement with Magellan Advisors, LLC for Master Licensing Agreement and Fiber Master Plan consulting.

NOW, THEREFORE, THE COUNCIL OF THE CITY OF FAIRFIELD HEREBY RESOLVES:

Section 1. The agreement between the City and Magellan Advisors, LLC, attached hereto as Consultant Services Agreement-Magellan (the "Agreement"), is hereby approved, with such changes as may be approved by the City Manager.

Section 2. The City Manager is authorized to do all things necessary to implement this resolution and to execute this agreement.

PASSED AND ADOPTED this 3rd day of September, 2019, by the following vote:

AYES: COUNCILMEMBERS: _____

NOES: COUNCILMEMBERS: _____

ABSENT: COUNCILMEMBERS: _____

ABSTAIN: COUNCILMEMBERS: _____

MAYOR

ATTEST:

CITY CLERK

CITY OF FAIRFIELD
CONSULTANT SERVICES AGREEMENT

THIS AGREEMENT is made at Fairfield, California, as of _____, 2019 (“Effective Date”), by and between the City of Fairfield, a municipal corporation (the “CITY”) and Magellan Advisors (“CONSULTANT”), who agree as follows:

1) SERVICES. Subject to the terms and conditions set forth in this Agreement, CONSULTANT shall provide to the CITY the services described in Exhibit “A,” which consists of the proposal submitted by CONSULTANT. CONSULTANT shall provide said services at the time, place, and in the manner specified in Exhibit “A.”

2) PAYMENT. CITY shall pay CONSULTANT for services rendered pursuant to this Agreement at the times and in the manner set forth in Exhibit “B.” The payments specified in Exhibit “B” shall be the only payments to be made to CONSULTANT for services rendered pursuant to this Agreement. CONSULTANT shall submit all billings for said services to the CITY in the manner specified in Exhibit “B.”

3) FACILITIES AND EQUIPMENT. CONSULTANT shall, at its sole cost and expense, furnish all facilities and equipment which may be required for furnishing services pursuant to this Agreement.

4) GENERAL PROVISIONS. The general provisions set forth in Exhibit “C” are part of this Agreement. In the event of any inconsistency between said general provisions and any other terms or conditions of this Agreement, the provisions set forth in Exhibit “C” shall control.

5) INSURANCE REQUIREMENTS. The insurance requirements set forth in Exhibit “D” are part of this Agreement. In the event of any inconsistency between said general provisions and any other terms or conditions of this Agreement, the requirements set forth in Exhibit “D” shall control.

6) EXHIBITS. All exhibits referred to herein are attached hereto and are by this reference incorporated herein.

7) TERM. The term of this Agreement shall be one (1) year and shall expire one (1) year from the Effective Date, unless otherwise terminated or extended as provided herein.

8) GOVERNING LAW AND VENUE. Should either Party to this Agreement bring legal action against the other, the validity, interpretation, and performance of this Contract shall be controlled by and construed under the laws of California, excluding California’s choice of law rules. Venue for any such action relating to this Agreement shall be in the Solano County Superior Court.

9) ENTIRE AGREEMENT. This Agreement, including any other documents incorporated herein by specific reference, represents the entire and integrated agreement between CITY and CONSULTANT. This Agreement supersedes all prior oral or written negotiations, representations or agreements. This Agreement may not be modified or

revised 7/15/19

amended, nor any provision or breach waived, except in a writing signed by both parties which expressly refers to this Agreement.

10) COUNTERPARTS. This Agreement may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

11) NOTICES. This Agreement is managed and administered on the CITY's behalf by the individual named below. All invoices must be submitted and approved by this individual and all notices shall be given to the CITY using the following contact information:

CITY Contact: City of Fairfield-IT Division
E-mail: rpuccinelli@fairfield.ca.gov
Address: 1000 Webster Street-PD Lobby, Fairfield, CA. 94533
Telephone: 707-428-7582

Notices must be given to CONSULTANT at the following:

CONSULTANT Contact: John Honker, Magellan Advisors
E-mail: jhonker@magellan-advisors.com
Address: 450 Alton Road, 1402, Miami, FL 33139
Telephone: 786-208-8952

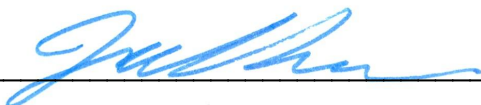
EXECUTED as of the day first above-stated.

City of Fairfield, a municipal corporation

By: _____

Title: _____

CONSULTANT

By:  _____

Title: President and CEO

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EXHIBIT "A"

SCOPE OF SERVICE

See attached Magellan Proposal.

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Scope of Services

Task 1: Policy & Governance

Magellan will assist and guide the City of Fairfield’s team in policy development around dig once, a wireless ordinance and a master license agreement reflective of a small cell attachment lease rate and in-kind terms that we will assist the City in adopting. We maintain knowledge in policy development and organizational structure for implementing and operating broadband and wireless networks such as the proposed phased municipal broadband network vision for Fairfield.

Magellan will work with Fairfield’s City Attorney to complete drafting a master license agreement, providing our knowledge of best practice based on our experience in other cities. We will provide examples of dig once, wireless ordinance, and master license agreement approaches and ordinances as requested, assess the fit for the needs of Fairfield, and recommend the best strategy.

We will help the City organize and refine internal business processes for improved communications, project management, financial management and policy development. Magellan’s team will provide the City with our knowledgebase of wireless policies for enabling and facilitating the development of policy for use of the public right-of-way for wireless installations.

Our recommendations will help the City generate business processes and workflows that will improve internal and external partnerships for streamlining the Fairfield’s ongoing expansion of broadband wireless deployments. We will provide advisory services for development of a governance plan and advise and guide the City in implementing policy that may include the following areas:

Political Will

- Engage councils, commissions and community stakeholders
- Educate and achieve support from internal champions
- Organize diverse task force and project advocates

Internal and External Policy Development

- Dig once ordinance
- Wireless ordinance
- Wireless master licensing agreements

Magellan’s staff of experts maintains knowledge about the current and relevant direction of broadband and fiber technology including legal, regulatory, and technical aspects. Members of our team, including Jory Wolf and David Brevitz (proposed for this project) participate and maintain leadership positions in trade groups such as Broadband Communities, SEATO, Next Century Cities, MISAC and ICMA, and routinely present thought leadership pieces surrounding these topics to regional and national organizations at trade shows and conferences. Using this expertise, Magellan will guide and assist the City in drafting ordinances and agreements in conjunction with representatives from the City Manager’s office, City Attorney’s office, Public Works, and Information Technology Departments.

These ordinances and agreements will be customized to the needs of the City of Fairfield and will address the following policy objectives:

- Mandate the coordinated, strategic deployment of conduit and fiber while taking advantage of as many public and private excavation projects as is reasonably possible.
- Establish an in-kind Conduit/Fiber-in-lieu of payment option for other parties that wish to take advantage of an excavation project.
- Mandate developers of new sub-divisions to install conduit and other appropriate infrastructure to each new resident and in PROW/HOA ROW.
- Establish a mechanism to ensure coordination across the public, utility and private sectors.
- Set a reasonable De Minimis excavation standard.



Magellan believes strongly that we are only as successful as our clients. As such, we are committed to seeing our recommendations through to the adoption and implementation stages of each project. Our advisors will guide the City through these processes to assist Fairfield in adopting the proposed policies and ordinances. As part of this commitment, Magellan Advisors will attend at least two (2) City Council meetings in which the proposed draft ordinances are introduced and adopted. These meetings may include:

- Industry Meeting
- City Council Study Session
- City Council 1st Reading
- City Council 2nd Reading and adoption

Task 2. Assessment of City Owned Assets

We will conduct a comprehensive asset inventory of Fairfield’s current network to determine its usefulness for new broadband applications. This assessment will give Fairfield a realistic assessment of the network’s capabilities and opportunities to use it as a foundation for future broadband programs. We believe that the following components should be analyzed at a minimum:

- Underground conduit, innerduct, empty and available conduit
- Fiber cables, strand counts, splice points, terminations and utilized strands
- Vault and handhole locations
- Available and reserved capacity throughout the network
- Construction and placement method policies
- Current as-builts and documentation
- Terminating locations and city facilities
- City GIS maps including City-owned property, right of way, easements

Using GIS information provided by the City, we propose to first build a geo-correct layer for Fairfield’s conduit and fiber, identifying placed conduit, type, size, status (occupied/vacant) and related information. A second layer will incorporate poles, traffic signal cabinets and other assets to be used for expanding the network, for network operations and for opportunities to generate lease revenue through vertical pole assets from 5G microcell site deployments.

We will work with Fairfield’s Public Works Department to assess capital projects that may create opportunities to install conduit and fiber infrastructure, in conjunction with other broadband providers. We propose to review the long- term capital projects schedule and build a map that identifies the projects where broadband infrastructure could be installed over the 10-year period. We’ll also plan cost estimates for Fairfield year-by-year to determine how much funding should be allocated to these projects, if any.

As a part of this task and in conjunction with the policy work contained in this scope of work, our team will also collect vertical pole inventories for leveraging DAS attachments and WiFi deployments for lease revenue opportunities, for support of smart city applications and for lifestyle improvements for workers, visitors and residents.

Magellan will provide Fairfield with a comprehensive report on the network and accompanying GIS files. This report will provide the inventory of available broadband assets that Magellan will consider formalizing into its broadband program as it develops. Magellan’s GIS services will enable Fairfield to accurately collect, track, analyze and report on key broadband infrastructure assets throughout the City.



Task 3: Needs Assessment

Fairfield Community Anchor Institution Identification

Magellan will work with the City of Fairfield to build an inventory of all community anchors across education, healthcare, municipal, public safety, state and regional organizations. We routinely work with cities to identify prominent stakeholders that will benefit from a network. We will identify community anchors and businesses within Fairfield that have a strong need for broadband and are located in strategic areas of the City. This assessment will enable Fairfield to understand which locations might benefit from a community broadband network.

Opportunity Assessment

Magellan proposes to assist the City of Fairfield in conducting a comprehensive outreach to the community’s anchor institutions and businesses to develop a broadband needs assessment, tailored specifically to Fairfield’s goals of attracting and retaining businesses for economic development. Magellan will use a combination of on-line surveys and focus group interviews and discussions as detailed more fully below.

A. Online Broadband Surveys

Magellan’s online surveys will provide important information to understand perceptions around broadband services, inventory current services, test speeds across the business and residential community, and identify issues. Magellan will build the survey based on experience of what questions work best to build an understanding of current and future broadband needs. Our team will also guide the City of Fairfield in effectively marketing the survey to receive a strong response rate from businesses and anchor institutions that will clearly demonstrate the needs of the community, including the use of social media, partnering with local business groups, and posting the survey on the City’s website.

B. Community Anchor Interviews

Magellan proposes to hold interviews with key community anchor organizations (“CAIs”) to gain an understanding of their current and future broadband and technology needs. We find the most effective format for these interviews to be in group settings where participants are encouraged to share open, honest feedback with our team. CAIs are key organizations that often become “anchor tenants” on broadband networks because of their high demand for bandwidth. We will work with Fairfield’s team to identify community anchors, support outreach efforts to invite them to share their sentiment, and facilitate the focus group sessions with an onsite visit.

C. Business Focus Group Interviews

For businesses in the community, Magellan proposes to hold focus group discussions to understand their current and future broadband and technology needs. We find that these can often be coordinated through local economic development personnel or the local chamber of commerce. We will support and guide the City through outreach for these efforts, as well as facilitating onsite focus group sessions, with about 5-10 businesses each. These business interviews are important to identify key business anchors that may utilize a broadband network and provide valuable information that we will utilize to assess the demand for services in Fairfield.

Smart City and Emerging Technologies

Magellan will interview Fairfield’s departments to identify smart city applications, locate them geographically and to inform and advise Fairfield in using the wired and wireless broadband network for supporting these innovations. These include but are not limited to intelligent transportation, traffic signal synchronization, mass transit priority, public safety, parking and traffic, WiFi, streaming video, credit card services, EV charging, environmental sensors, vehicle and pedestrian counting and access control. The report will also identify how Fairfield can use the broadband network for supporting emerging technologies, with emphasis on the Smart City applications that the City finds most beneficial to its community. This assessment will dovetail with identifying and assessing the viability of using existing or new assets such as conduits, buildings, traffic signal poles and cabinets, street light poles and smart poles. A more fully defined set of advisory services may include:



Public WiFi

- Location Aware Launch Pages
- Session Management
- Income from Advertising
- Promotion of Location and Space for Business
- Secure Municipal Networks

Smart Parking

- Wireless Meters
- Real-time Parking Availability
- Pay-on-Foot Devices
- Smart Mobile Parking Apps
- Parking Navigation
- Directional Signs
- Real-time Signs
- Credit Card Transactions

Smart Transportation

- Traffic Signal Synch
- Transit Priority
- HD Traffic Cameras
- Transportation Management Center
- Smart Bike Lanes

Smart Public Safety

- 4G & Wi-Fi Data
- Mobile Streaming Video
- HD Public Safety CCTV Cameras

Smart Resources

- Sanitation
- Water Monitoring
- Rubbish Disposal

Competitive Analysis

The competitive analysis will determine the services that are available, providers, service level, pricing, and access. We will document all publicly-owned and privately-owned networks in Fairfield and build a comprehensive GIS-based broadband map to illustrate how the City is served by broadband and what providers currently serve the market.

We should expect that some private providers will not share their infrastructure maps for the project, but we find that in many cases, providers will cooperate in this initiative as this collaboration often provides opportunities for them to better understand the local market. We will also work with the local providers to understand and document their current needs, as they too are stakeholders in the community. Many of these discussions may take place during the development of public policy such as the MLA and should lead to potential opportunities for Fairfield and private providers to define partnership opportunities in delivering new broadband services to the City.



This market assessment will consider the locations of businesses, schools, hospitals, clinics/doctors' offices, and other community organizations determined to be likely adopters of broadband. Using GIS information provided by the City, we will incorporate the current network into the comprehensive broadband map, which will allow us to begin building layers of potential customer locations on top of the current infrastructure. Layers will include City facilities, businesses, schools, hospitals, clinics, government organizations, community support organizations, and others to be determined.

Based on information collected from the market assessment, we will identify the opportunities for Fairfield to consider a variety of options for developing a community broadband network. This analysis should build on Fairfield's current fiber/conduit infrastructure, assets of other potential partners, and new infrastructure that would create a network to support the community. There are many inputs to the overall feasibility and sustainability of community broadband networks and Magellan will work with the Fairfield team to determine the drivers in Fairfield that would support such a network.

Task 5. Fiber Network Build Model, Partnerships and Lease Opportunities

Magellan's project team includes highly experienced staff that have successfully completed over 250 fiber-optic broadband planning projects across the US. The project executive overseeing Fairfield's Fiber Master Plan will be Jory Wolf. Jory is the past CIO of the City of Santa Monica and creator of Santa Monica City Net, City WiFi and over a dozen smart city initiatives. He has vast understanding of the telecommunications environment throughout California and will lead Magellan's team to create a successful plan for Fairfield. Our team has worked with cities to assess and implement a variety of business models across our clients and is innately familiar with how these models differ from city to city. Each city is unique, and through our proven process we will work with Fairfield to find the model that is most feasible and presents the best opportunity for its unique community. Some considerations for the business model include:

Public-Owned

- Fairfield owned "middle mile" infrastructure with potential partnership opportunities for "last mile" connections

Open Access

- Proceed with the intent to lease or otherwise make available, fiber infrastructure (conduit, dark or lit fiber, vertical and other assets) to other municipal entities, telecommunications carriers, other service providers or businesses
- Connect to an Internet Point of Presence (POP) and offer a choice of Internet Service Providers (ISPs) to partnership entities and end-users on the network through either wholesale, retail, revenue sharing or passive network access

Demand-Driven

- Deploying the network and associated services where areas of demand (both social and economic) will be strongest
- Realizing a financial return on investment in terms of economic development impact, infrastructure enhancement, leased line or other communications service savings and revenue generation
- Focusing on social return on investment in terms of enhancing Quality of Life via educational, Public Safety and Smart City initiatives

Incremental Build

- City/municipal buildings and facilities, evaluating leased-line savings, communications and operational enhancements
- Community Anchor Institutions (CAIs) such as large businesses, hospitals, learning institutions, etc.
- Business economic development zones or corridors and the broader business community
- Public Wi-Fi areas, public safety and other smart city services requiring a fiber backbone or otherwise enhanced by high-speed access
- Eventual possibility of residential communities including multi-dwelling units (MDUs), low-income housing and the broader community at large

Other considerations

- Leverage the existing network, including adding redundancy and resiliency, building the network to carrier-grade levels, monetizing current assets including leasing infrastructure
- Capitalize on joint-trench opportunities and other Right of Way access opportunities in conjunction with other Public Works projects to expand network infrastructure

Investigate Partnership Opportunities

Magellan assists communities in developing public-private partnerships that achieve the community goals. We help local governments use their public-sector capabilities and assets to attract broadband partners to deploy Gigabit Internet and other leading services to citizens and businesses. Magellan helps communities through the entire process, from developing the “ask” for communities, to managing the procurement process for broadband partners, to negotiating the terms of agreements, to managing the partnerships on behalf of communities. Through our deep industry contacts and experience, we help communities find the right providers to deliver the services they need. Magellan will assist Fairfield in investigating the opportunities for partnerships including public-private and public-public including the possibility of a mutually profitable partnership with other local municipalities.

Some of the key questions that we will address in this section include:

- How will joint investment in broadband infrastructure be accomplished between Fairfield and private sector organizations?
- What legal and operational structures should be considered by Fairfield and private sector organizations in use of Fairfield’s proposed infrastructure?
- How will Fairfield balance private sector goals of revenue growth and profitability with public goals of providing affordable and available broadband services across the City?
- How will future system expansion be handled between Fairfield and private sector providers and what contributions will the parties make to this infrastructure?
- How will Fairfield maintain neutrality and open interconnection policies with private sector providers, promoting a competitive environment that benefits Fairfield’s broadband user base?
- How will an oversight and management board be structured, who will seat the board and what powers and responsibilities will the board have to the project?

Task 6. Network Design

Magellan will work with Fairfield’s staff to identify infrastructure that is required to meet the needs of the community determined in the needs analysis. Our team will thoroughly review all communications facilities owned by the City that could be utilized in a new strategy that would be developed as part of this Plan. Our consultants



will advise Fairfield about the pros and cons of each delivery method and the costs associated with each as the infrastructure that is chosen can have a major impact on long-term financial sustainability.

The overall network design will be based on the needs of the residents, businesses, and anchors that will utilize it. This will determine the bandwidths and speeds, performance, redundancy and scalability requirements and solution-specific requirements. Magellan will design a network that meets the specifics outlined by Fairfield, and the network should be capable of supporting the following:

- Gigabit-capable with a path to 10-gigabit
- High-performance, dedicated connectivity
- Reliable and redundant
- Flexible to support multiple technologies, such as GPON and Active Ethernet simultaneously
- Scalable to support future growth, density and bandwidth requirements
- Multi-service in design – voice, video, data, with the necessary QOS management
- Administratively lean, fitting well within the electric utility operational environment
- Smart City applications
- Smart Grid technologies

Based on the network design, Magellan will provide estimates to Fairfield for cost of network construction, including design, construction, equipment, testing and certification as well as ongoing annual costs to operate and maintain the network. In addition, all backhaul options will be reviewed to identify the most optimal routes out of Fairfield, and to identify potential interconnect points to regional Points of Presence (PoPs). Our significant work managing broadband construction projects will allow for accurate estimation of the costs Fairfield will bear in this process. We will incorporate these cost estimates into our financial planning tools used in the project for business, anchor and residential service.

We'll incorporate all cost estimates for capital into our Broadband Financial Sustainability Model to conduct further financial analysis of the proposed network. Our model provides comprehensive capital and operational costs for buildout in year-by-year schedules that accounts for all revenues and costs borne by Fairfield's proposed network. Details on how our model works is described in the following sections.

Task 7. Business Model & Financial Analysis

Magellan will help Fairfield analyze a range of business model options in the framework of financial, operational, and organizational requirements to determine which models are “best fit” for the City, have the greatest chance of success, and will be the most financially sustainable. We will present each analysis of every business model to the City's team and provide an analysis of how each meets Fairfield's goals in the project.

Magellan will work with Fairfield to define the range of business model options to evaluate for expanded fiber deployment, which may include the following:

- Wholesale dark fiber and/or services in partnership with telecommunications providers;
- Expanded retail services to a range of customer segments, which may include residential
- Partnership models with existing broadband providers;
- Others to be determined.

Magellan will evaluate the current financial and budgetary environment for the network. We believe that Fairfield's decision-making process for a network expansion needs to include financial analysis of the proposed hardware solution and the operational costs that the City will incur in deploying the selected solution. These



operational costs include more than equipment service contracts; the selected solution will have financial impacts across many aspects of Fairfield’s operations. We want to make sure these are evaluated so Fairfield understands all financial impacts to the organization.

Once documentation is complete, we propose to analyze current and future needs for Fairfield and the network. Magellan proposes that we ask and answer the following key questions in the needs assessment:

- What are the long-term needs of Fairfield’s current customers including types of service, bandwidth scalability, performance, and reliability?
- Can Fairfield expand its service offerings to attract new customer segments? If so, what customer segments are anticipated and what services will these customers require?
- Are Fairfield’s products and services competitive in the market and how can the expanded network create competitive advantages for the City to expand its customer base in the community?
- What is the current environment in metropolitan area networking that Fairfield should consider for improve competitiveness and meet current and future customer needs?
- How is the network currently managed and what operational goals does Fairfield want to achieve in expansion of its network?

Financial Planning and Our Broadband Financial Model

Magellan proposes using our Broadband Financial Sustainability Model to ensure that Fairfield has a full understanding of the business and financial sustainability of various broadband initiatives. Using these tools will allow Fairfield to evaluate different business models and make informed decisions on which are most adequate for the City and community – including environments that require no funding.

Using our financial tools, we suggest using the following process to conduct the business model analysis and make recommendations. We would propose using a 10-year period to analyze the project:

1. Develop the cost model for the network, including one-time and ongoing capital expenditures to build the network.
2. Develop the cost model for operations, including O&M, network operations, field services, staffing, billing and customer service.
3. From the market analysis and outreach, determine the customer segmentation and growth on the network, across each type of customer (business, school, hospital, etc.).
4. Determine customer growth rates for the network, based on benchmarking analysis from other utility and municipal providers.
5. Determine a proposed competitive rate schedule for potential services, using pricing information from the market analysis and benchmarking information.
6. Develop financial statements, pro-formas, depreciation schedules, and cash flows.
7. Conduct comprehensive financial analysis on the project to determine overall financial sustainability using key metrics such as free cash flow, debt service coverage, operating margin, and net income.
8. Use scenario analysis to evaluate different business models and determine which are feasible for Fairfield to consider.
9. Recommend the most feasible business model based on overall business and financial sustainability, community benefit, and long-term value to the Fairfield community. This model will be designed to generate revenue for Fairfield for a self-sustained broadband maintenance and development program. Our pro formas will indicate the cost of resources both internally and externally, as estimated based on previous similar engagements.



Task 8: Phased Implementation & Roadmap for Deployment

The culmination of the study will lay out the core strategies for Fairfield in development of its municipal and community broadband initiatives. The Plan will craft the most effective strategies for the City to adopt to bring next-generation broadband to its community, leveraging the City's infrastructure, smart public policies and key partnerships among public and private organizations. Fairfield will provide a master plan that details recommendations with actionable steps for the City to expand broadband and fiber infrastructure.

Task 9. Master Plan Compilation

Magellan will provide a final Fiber Master Plan to Fairfield at the conclusion of this engagement. Fairfield's Fiber Master Plan will contain the blueprint for development of City infrastructure to interconnect all corridors with one another, serve municipal and community needs, support economic development, support identified smart city initiatives and prepare the City for the gigabit generation. We will work with you to refine this plan so it is 100% representative of your stakeholders needs and has a high degree of relevance to your community. The Master Plan will function as the guidebook for fiber-optic development across Fairfield and will include all information necessary for Fairfield to begin implementing the strategies within. All documents generated to support delivery of the Plan will also be provided to Fairfield.

Project Management, Meetings, and Presentations

Magellan's project team will meet regularly with the City of Fairfield's project team to discuss the status of the project, major milestones and deliverables, and ensure alignment on project goals. Our team will also be readily available for meetings with Fairfield's leadership to support the adoption of the Master Plan and we are happy to present the final report and findings to your leadership, City officials or other stakeholders you believe should be included in the final presentations.

EXHIBIT “B”

PAYMENT

- 1) The price for Services rendered by CONSULTANT under this Agreement shall be billed to CITY at an hourly rate of \$223, including travel expenses, consistent with the estimated hours provided below. On-site time will be billed at 10-hour workdays minimum. The total compensation paid by CITY to CONSULTANT under this Agreement shall not exceed \$118,190.00

Description	Hours	Hourly Rate	Total Cost
Policy & Governance (Drafting & Adoption of Small Cell Ordinance, MLA, Dig Once)		\$223	\$22,300
Assessment of City-Owned Assets		\$223	\$8,920
Needs Assessment		\$223	\$17,840
Fiber Network Build Model, Partnerships, and Lease Opportunities		\$223	\$13,380
Network Design		\$223	\$13,380
Business Model & Financial Analysis		\$223	\$8,920
Phased Implementation Plan/Roadmap for Deployment		\$223	\$8,920
Master Plan Compilation		\$223	\$8,920
Project Management, Meetings, & Presentations		\$223	\$15,610
Total Pricing (Not-to-Exceed)	530	\$223	\$118,190

- 2) CONSULTANT shall submit invoices to CITY on a monthly basis for services provided. CITY agrees to pay invoices within 30 days after receipt.
- 3) Any additional meetings, work, or other services required beyond that set forth in Exhibit “A” shall be mutually agreed to in writing by the CITY and CONSULTANT. Such additional work shall be billed on a time and materials basis, or as otherwise agreed to in writing by CITY and CONSULTANT.
- 4) Except as otherwise provided in this Exhibit “B”, CONSULTANT shall be responsible for all costs and expenses incurred by CONSULTANT and its personnel and subcontractors in connection with the Services, including, without limitation, payment of salaries, fringe benefit contributions, payroll taxes, withholding taxes, and other taxes or levies, office overhead expenses, telephone and other telecommunication expenses, and document reproduction expenses.

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EXHIBIT "C"

GENERAL PROVISIONS

- 1) INDEPENDENT CONSULTANT. At all times during the term of this Agreement, CONSULTANT shall be an independent contractor and shall not be an employee of CITY. CITY shall have the right to control CONSULTANT only insofar as the results of CONSULTANT's services rendered pursuant to this Agreement; however, CITY shall not have the right to control the means by which CONSULTANT accomplishes services rendered pursuant to this Agreement.
- 2) LICENSES; PERMITS; ETC. CONSULTANT represents and warrants to CITY that CONSULTANT has all licenses, permits, qualifications, and approvals of whatsoever nature which are legally required for CONSULTANT to practice CONSULTANT's profession. CONSULTANT represents and warrants to CITY that CONSULTANT shall, at its sole cost and expense, keep in effect at all times during the term of this Agreement, any licenses, permits, and approvals which are legally required for CONSULTANT to practice his profession.
- 3) TIME. CONSULTANT shall devote such services pursuant to this Agreement as may be reasonably necessary for satisfactory performance of CONSULTANT's obligations pursuant to this Agreement. CONSULTANT shall adhere to the Schedule of Activities as described in their Executive Summary.
- 4) CONSULTANT NOT AN AGENT. Except as CITY may specify in writing, CONSULTANT shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONSULTANT shall have no authority, express or implied, pursuant to this Agreement, to bind CITY to any obligation whatsoever.
- 5) ASSIGNMENT PROHIBITED. No party to this Agreement may assign any right or obligation pursuant to this Agreement. Any attempted or purported assignment of any right or obligation pursuant to this Agreement shall be void and of no effect.
- 6) PERSONNEL. CONSULTANT shall assign only competent personnel to perform services pursuant to this Agreement. In the event that CITY, in its sole discretion, at any time during the term of this Agreement, desires the removal of any person or persons assigned by CONSULTANT to perform services pursuant to this Agreement, CONSULTANT shall remove any such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person or persons.
- 7) STANDARD OF PERFORMANCE. CONSULTANT shall perform all services required pursuant to this Agreement. Services shall be performed in the manner and according to the standards observed by a competent practitioner of the profession in which CONSULTANT is engaged in the geographical area in which CONSULTANT practices his profession. All products which CONSULTANT delivers to CITY pursuant to this Agreement shall be prepared in a workmanlike manner, and

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conform to the standards of quality normally observed by a person practicing in CONSULTANT's profession. CITY shall be the sole judge as to whether the product of the CONSULTANT is satisfactory.

- 8) CANCELLATION OF AGREEMENT. This Agreement may be canceled at any time by the CITY at its discretion upon written notification to CONSULTANT. CONSULTANT is entitled to receive full payment for all services performed and all costs incurred up to and including the date of receipt of written notice to cease work on the project. CONSULTANT shall be entitled to no further compensation for work performed after the date of receipt of written notice to cease work. All completed and incomplete products up to the date of receipt of written notice to cease work shall become the property of CITY.
- 9) PRODUCTS OF CONSULTING. All products of the CONSULTANT provided under this Agreement shall be the property of the CITY.
- 10) INDEMNIFY AND HOLD HARMLESS.
 - a) If AGREEMENT is an agreement for design professional services subject to California Civil Code § 2782.8(a) and CONSULTANT is a design professional, as defined in California Civil Code § 2782.8(c)(2), to the fullest extent permitted by law, CONSULTANT shall indemnify, defend and hold harmless CITY and its elected officials, officers, agents, employees and designated volunteers (collectively "CITY Indemnitees") from and against any and all claims, losses, liabilities, damages, costs and expenses, including attorney's fees and costs, to the extent they arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONSULTANT. CONSULTANT's duty to defend shall consist of reimbursement of defense costs incurred by CITY in direct proportion to the CONSULTANT's proportionate percentage of fault. CONSULTANT's percentage of fault shall be determined, as applicable, by a court of law, jury or arbitrator. In the event any loss, liability or damage is incurred by way of settlement or resolution without a court, jury or arbitrator having made a determination of the CONSULTANT's percentage of fault, the parties agree to mediation with a third party neutral to determine the CONSULTANT's proportionate percentage of fault for purposes of determining the amount of indemnity and defense cost reimbursement owed to the CITY.
 - b) If AGREEMENT is not an agreement for design professional services subject to California Civil Code § 2782.8(a) or CONSULTANT is not a design professional as defined in California Civil Code § 2782.8(c)(2), to the fullest extent allowed by law, CONSULTANT shall indemnify, defend, and hold harmless the CITY Indemnitees from all claims, suits, or actions of every name, kind and description, brought forth on account of injuries to or death of any person or damage to property arising from or connected with the willful misconduct, negligent acts, errors or omissions, ultra-hazardous activities, activities giving rise to strict liability, or defects in design by CONSULTANT or any person directly or indirectly employed by or acting as agent for

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CONSULTANT in the performance of this Agreement, including the concurrent or successive passive negligence of the CITY Indemnitees.

It is understood that the duty of CONSULTANT to indemnify and hold harmless includes the duty to defend as set forth in Section 2778 of the California Civil Code.

Acceptance of insurance certificates and endorsements required under this Agreement does not relieve CONSULTANT from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply whether or not such insurance policies are determined to be applicable to any such damages or claims for damages.

CONSULTANT'S responsibility for such defense and indemnity shall survive termination or completion of this agreement for the full period of time allowed by law.

- 11) PROHIBITED INTERESTS. No employee of the CITY shall have any direct financial interest in this agreement. This agreement shall be voidable at the option of the CITY if this provision is violated.
- 12) LOCAL EMPLOYMENT POLICY. The CITY desires wherever possible, to hire qualified local residents to work on city projects. Local resident is defined as a person who resides in Solano County. The CITY encourages an active affirmative action program on the part of its contractors, consultants, and developers. When local projects require, subcontractors, contractors, consultants and developers will solicit proposals from qualified local firms where possible.

As a way of responding to the provisions of the Davis-Bacon Act and this program, contractor, consultants, and developers will be asked, to provide no more frequently than monthly, a report which lists the employee's name, job class, hours worked, salary paid, city of residence, and ethnic origin.

- 13) CONSULTANT NOT A PUBLIC OFFICIAL. CONSULTANT is not a "public official" for purposes of Government Code §§ 87200 et seq. CONSULTANT conducts research and arrives at his or her conclusions, advice, recommendation, or counsel independent of the control and direction of the CITY or any CITY official, other than normal contract monitoring. In addition, CONSULTANT possesses no authority with respect to any CITY decision beyond these conclusions, advice, recommendation, or counsel.
- 14) EMPLOYMENT DEVELOPMENT DEPARTMENT REPORTING REQUIREMENTS. When the CITY executes an agreement for or makes payment to CONSULTANT in the amount of \$600 (six hundred dollars) or more in any one calendar year, CONSULTANT shall provide the following information to CITY to comply with Employment Development Department (EDD) reporting requirements:
 - a) Whether CONSULTANT is doing business as a sole proprietorship, partnership, limited liability partnership, corporation, limited liability corporation,

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non-profit corporation or other form of organization.

- b) If CONSULTANT is doing business as a sole proprietorship, CONSULTANT shall provide the full name, address and social security number or federal tax identification number of the sole proprietor.
- c) If CONSULTANT is doing business as other than a sole proprietorship, CONSULTANT shall provide CONSULTANT'S federal tax identification number.

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EXHIBIT "D"

INSURANCE REQUIREMENTS

CONSULTANT shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the CONSULTANT, its agents, representatives, or employees.

1) **MINIMUM SCOPE AND LIMITS OF INSURANCE**

- a) Commercial General Liability coverage (occurrence Form CG 00 01) with minimum limits of \$1,000,000 per occurrence for bodily injury, personal injury, products and completed operations, and property damage. If Commercial General Liability or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
- b) Automobile Liability coverage (Form CA 00 01 with Code 1 – any auto) with minimum limits of \$1,000,000 per accident for bodily injury and property damage.
- c) Workers' Compensation insurance as required by the State of California and Employers' Liability insurance, each in the amount of \$1,000,000 per accident for bodily injury or disease.

2) **INDUSTRY SPECIFIC COVERAGES**

If checked below, the following insurance is also required.

- Professional Liability Insurance / Errors and Omissions Liability in the minimum amount of \$1,000,000 per occurrence.
- Pollution Liability Insurance in the minimum amount of \$1,000,000 per occurrence
- Garage Keepers Insurance in the minimum amount of \$1,000,000 per occurrence
- Fidelity / Crime / Dishonesty Bond in the minimum amount of \$_____
- MCS-90 Endorsement to Business Automobile insurance for transportation of hazardous materials and pollutants
- Builder's Risk / Course of Construction Insurance in the minimum amount of \$_____.

3) **INSURANCE PROVISIONS**

- a) **DEDUCTIBLES AND SELF-INSURED RETENTIONS.** Any deductibles or self-insured retentions must be declared to and approved by the CITY. At the option

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of the CITY, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the CITY, its officers, officials, employees and volunteers; or the CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

- b) The general and automobile liability policies (and if applicable, pollution liability, garage keepers liability and builder's risk policies) are to contain, or be endorsed to contain, the following provisions:
 - i) The CITY, its officers, officials, employees and volunteers are to be covered as insureds as respects: liability arising out of work or operations performed by or on behalf of the CONSULTANT; products and completed operations of the CONSULTANT; premises owned, occupied or used by the CONSULTANT; and automobiles owned, leased, hired or borrowed by the CONSULTANT. The coverage shall contain no special limitations on the scope of protection afforded to the CITY, its officers, officials, employees or volunteers.
 - ii) For any claims related to this project, the CONSULTANT'S insurance coverage shall be primary insurance as respects the CITY, its officers, officials, employees and volunteers. Any insurance or self-insured maintained by the CITY, its officers, officials, employees or volunteers shall be excess of the CONSULTANT'S insurance and shall not contribute with it.
 - iii) Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the CITY, its officers, officials, employees or volunteers.
 - iv) The CONSULTANT'S insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - v) Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the CITY.
 - vi) The policy limits of coverage shall be made available to the full limits of the policy. The minimum limits stated above shall not serve to reduce the CONSULTANT'S policy limits of coverage. Therefore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this agreement, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured, whichever is greater.

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- c) ACCEPTABILITY OF INSURER. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the CITY.
- d) VERIFICATION OF COVERAGE. CONSULTANT shall furnish the CITY with original endorsements effecting coverage required by this Exhibit D. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf; on forms equivalent to CG 20 10 11 85, subject to CITY approval; and submitted electronically through the Exigis insurance system to: certificates-fairfield@riskworks.com. All insurance certificates and endorsements are to be received and approved by the CITY before work commences. At the request of the CITY, CONSULTANT shall provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications.
- e) SUB-CONTRACTORS. CONSULTANT shall require all subcontractors to procure and maintain insurance policies subject to the requirements of Exhibit D. Failure of CONSULTANT to verify existence of sub-contractor's insurance shall not relieve CONSULTANT from any claim arising from sub-contractors work on behalf of CONSULTANT.

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