Proposal Instructions

for

Fiber Network Operations

March 2019

City of Culver City

Information Technology Department

9770 Culver Boulevard

Culver City, CA 90232-0507
Fiber Network Operations

I. SUMMARY

The City of Culver City ("City") is seeking proposals from firms for operation, maintenance, marketing and development of the City’s recently completed open access fiber broadband Network ("Network"). The project goal is for a Network that facilitates the delivery of high speed internet access to the City for businesses in order to stimulate economic development, as well as for municipal purposes, and to the Culver City Unified School District. The Network Operator ("Operator") will ensure:

- A high quality Network in line with similar fiber networks providing mission critical data services;
- A secure and resilient network;
- Sustainable fiscal stewardship of the Network

II. BACKGROUND

The City of Culver City (City) is a charter city incorporated in 1917. The City is governed by a five-member City Council whose members are elected at large and operates under a Council/City Manager form of government.

Culver City is a full-service city located in the western area of Los Angeles County, generally situated north of Los Angeles International Airport, southeast of Santa Monica, south of Beverly Hills and southwest of West Hollywood. The City is approximately five square miles with a residential population of approximately 40,000. The total adopted budget for FY 2018-19 is approximately $239 million, of which $124 million is General Fund.

Culver City completed construction of the 21.7 mile Network backbone in July 2018. The Network consists of 576 strands of fiber and is entirely underground. The Network consists of three geographical network rings that are all interconnected by “Ring Ties” of approximately 3.1 route miles of fiber. There are three hub facilities located in the City which house city-owned network electronics, and the City leases two fiber connections to carrier hotels at One Wilshire in Los Angeles and Equinix in El Segundo. The City is currently directing efforts to build laterals to multi-tenant commercial properties. The laterals are being constructed to further advance the operation of the Network and to stimulate economic development. In addition to this Network, the City also has additional fiber infrastructure assets that are used for City Government purposes ("CCGOV") and for CCTV monitoring of major street intersections ("CCTV"). For the purposes of these proposals, CCGOV and CCTV are not a part of the Network.
Mox Networks ("Mox") has served as the City’s lead consultant to design and manage the construction of the Network since November 2014. Mox currently operates, maintains, and provides marketing and development services for the Network. In the interest of ensuring these services are performed by qualified individuals at a reasonable price, and consistent with City policies and the Culver City Municipal Code, the City Council has authorized the City Manager to obtain competitive proposals for these services.

The City’s current business model is for the Network to remain a carrier neutral, open access network run by a third-party Operator where the City maintains ownership and sells dark fiber to institutions, businesses, and multiple ISPs. However, the City is open to consideration of different business models, such as granting exclusivity to a single ISP. In this case, the City’s prefers to maintain the ability to sell dark fiber to institutions and businesses. Another model is for an Operator to provide ISP services on a portion of the Network while also selling dark fiber to other ISPs, businesses, and institutions. Innovative models, including ones the City has not yet considered, are encouraged. Each proposer should describe its proposed business model(s) in the proposal. The City will retain ownership of the Network, and the selected firm will be responsible for providing services in accordance with the scope of work outlined in the proposal for a fixed fee. Proposals covering all or a portion of the scope of work will be considered.

III. GENERAL SUBMITTAL INFORMATION

Proposals will be evaluated on a rolling basis as they are submitted. Proposals will be accepted until 3:00 p.m. on Thursday, June 27, 2019. To be considered, proposers must email a searchable PDF copy of the proposal to culverconnect@culvercity.org, with the email subject line “Proposal for Fiber Network Operations”.

A proposer may also submit an alternative proposal (or proposals) that it believes will also meet the City’s project objectives but in a different way, or that expands on the project to include services that the City has not presented here. See Section VI(D)(1)(e), below. If an alternative proposal is submitted, the maximum length of the proposal may be expanded proportionately by the number of alternatives submitted.

Questions with regard to these Proposal Instructions should be submitted at any time by e-mail to culverconnect@culvercity.org.

IV. SCOPE OF WORK

The City of Culver City intends to obtain the services of a qualified firm to provide the services as outlined below. Best industry practices and/or best management practices may require additional services not explicitly enumerated. The proposer should identify any additional services required, price them, and explain them in their response.
A. Project Scope

See Attachment 1, “Scope of Work for Culver City Fiber Network Operations.”

B. Project Information

Proposers may:

- Respond to all or a portion of the scope of work
  - If proposer is selected to provide a portion of the scope of work, the proposer would work with other vendors selected by the City to provide the entire scope of work.
- Subcontract a portion of the scope of work
- Partner with a different Proposer to divide the scope of work
- Propose additional work not included below, that is relevant to the maintenance, operation, sales or development of the network, or the specific business model proposed by the proposer.

C. Contract Duration

The City desires a 3-year contract with the option of 2 one-year renewals. Proposers may propose alternative contract durations and renewal options, if desired.

V. PROPOSAL OUTLINE TO BE SUBMITTED

The proposal shall be organized and submitted with the following elements:

A. Cover Page

The Cover Page shall not exceed one page.

B. Table of Contents

C. Executive Summary (not to exceed two pages)

Provide a brief summary describing the proposer’s ability to perform the work requested, a history of the proposer’s background and experience providing services, the qualifications of the proposer’s personnel to be assigned to this project, any subcontractor, sub consultants, and/or suppliers and a brief history of their background and experience.

D. Questionnaire/Response to Scope of Work

Proposer shall provide responses and information to fully satisfy each item in the Questionnaire (Section VI, below). Each question item should be presented
before the proposer’s response.

Keep responses concise and to-the-point, do not submit unrelated boilerplate material and marketing material. All responses to use Arial 12-point font. Response sections are not to exceed the length indicated below.

VI. QUESTIONNAIRE

A. Company and General Information (not to exceed two pages)

1. Company name and address.

2. General information about the primary contact who would be able to answer questions about the proposal. Include name, title, telephone number and email address of the individual.

B. Qualifications and Experience of the Firm (not to exceed ten pages)

1. Describe your firm’s history and organizational structure. Include the size of the firm, location of offices, years in business, organizational chart, name(s) of owner(s) and principal parties, and number and position titles of staff.

2. What is the primary business of the parent company and/or affiliates?

3. Which office(s) of your organization will have primary responsibility for managing this project? List the members of your team who will be responsible for providing the services and for ongoing support.

4. What is your firm’s experience conducting operation, maintenance, sales, and development of fiber networks? Please include for the last five years the number of projects, scope of services provided, and status of projects. What is your experience in municipal and open access fiber networks? What is your experience working with service providers? What capabilities and assets can you leverage to provide the services, including operations and business support systems, network operations center facilities, management expertise, sales personnel, and any other relevant factors?

5. Provide at least one example of a comparable projects (preferably a municipality) performed by your firm in the last five years. Include the following details:
   a. What was the structure of your relationship with the network owner?
   b. How many customers did the network have? (Provide quantity for residential and/or commercial)
   c. What was the network’s annual revenue?
   d. What were defined service levels for the project and how did you succeed in meeting them?
   e. What was the original cost estimate versus the actual operational cost?
f. How did you help the network owner achieve its goals?
g. Provide a link to the network’s operations manual.

6. Describe your best practice philosophies and solutions for open access networks, if applicable.

7. If you are also proposing to provide services as an ISP, describe your experience providing services (voice, video, data) and customer service methodology including ability to provide direct service to the customer base.

8. Comment on other areas that may make your firm different from your competitors.

C. Qualifications and Experience of Proposed Project Team

1. Describe the qualifications of staff proposed for the assignment, position(s) in the firm, and types and amount of equivalent experience. Be sure to include any municipal agencies they have worked with in the past three years and their level of involvement. A description of how overall supervision will be provided should be included. If person(s) have not yet been hired or assigned to the project, please described the job title and roles, as well as the minimum qualifications used to fill that role (not to exceed three pages)

2. Identify and provide the resume(s) of the personnel (including any subcontractors) who will be assigned to this project (single page for each resume).

D. Questions/Response to Scope of Work (not to exceed twenty pages)

1. Explain your business model for Culver City.
   a. Are you proposing to serve only as Operator; as Operator and ISP; as the City’s exclusive ISP; or some other arrangement?
   b. Explain your business model and how it will best leverage the Network to meet the City’s goals.
   c. What fee structure are you proposing (fee for service, monthly flat fee, revenue share, etc.)?
   d. Detail by each cost whether City or Operator will be financially responsible for ongoing Network costs including: maintenance, repairs, rights-of-way fees, insurance costs, and other network, monitoring, and operating expenses; lateral construction (see existing information about City and Customer funded laterals in Scope of Work Section 13); and capital expenses for routine maintenance, upgrade, and update.
   e. Include details on any additional proposals that the City has not considered. For example, proposer might propose also managing leases of City facilities (poles, etc.) to 5G companies, etc.
2. Describe the methods by which your firm will fulfill the services requested in the Scope of Work. For each numbered item 1 – 14 in the Scope of Work document, provide the following:
   a. Whether the service will be provided by the proposer's firm, subcontracted (to whom, if known), or via a partnership with another proposer;
   b. Estimated annual hours of work required;
   c. Estimated annual fee for the service (should sum to fees referred to in E(1))
   d. List person(s) responsible. If the person(s) have not be hired or assigned, please indicate by referring to job title. (Should correspond to information given in C(1).
   e. Brief description of how the services will be performed (including details such as whether the person will respond from a local office, work remotely, or be embedded in the City; frequency of inspections or activities; sales methodologies; etc.)
   f. If applicable, list proposed Key Performance Indicators and proposers expected performance against those KPIs. Examples include customer complaints (categorized by customer or complaint, priority, resolution time, etc.), network outages (by customer and location, repair time, etc.), network capacity, etc.

3. Indicate if you are willing to unbundle your services and provide only sub-set of the scope of work (such as only Network Operations Center, only Equipment Management, or only Sales and Development), should you not be selected to provide all services. If so, which services would you be willing to provide "unbundled", partnering with another City-selected vendor? Are you willing to work with the City’s existing third party service providers to provide the full range of services (example: managing the City’s existing Outside Plant Maintenance vendor)

4. How will you interface and coordinate with the City, to keep the City informed as to the Network status, problems that arise, etc.? For example, regular performance reports submitted to the City’s Chief Information Officer (CIO).

5. Is the City’s preferred contract duration of 3 years with the option of 2 one year renewals acceptable? If not, please suggest your acceptable contraction duration and renewal structure.

6. Please include a one page Community Outreach Plan. For example, how you will help the City provide network services to schools or expand the availability of free public wi-fi.

7. If you are proposing to provide ISP services:
   a. Provided a detailed and comprehensive overview of the service offering to be made available to customers using the Network, including types of
services offered initially and in the future and when.
b. How many strands of fiber would you lease from the City for ISP services?
c. Provide your standard rates and schedules for services.
d. What is your marketing plan and anticipated rate of growth in customers over time?

8. What differentiates your service delivery from that of other proposers?

E. Fees (not to exceed three pages)

1. Provide your total fees for the proposed services. Fee quotes should be detailed by service in section D(2). If you are proposing a payment structure that does not correspond to this question, such as a revenue share, instead please explain details of your proposal.

2. Outline billing and payment expectations, including timing and method of payment.

3. Describe any remaining fees not previously detailed in Section D.

F. References (not to exceed two pages for each reference)

List the name, address, e-mail address and telephone number of references from at least three (3) recent similar projects, such as the chief executive of a network owner that you have operated. Include a brief description of the work provided for each reference, if not otherwise detailed in Section B. California municipal or county projects are preferred. You may offer more than three recent similar projects if desired. The references should include the start date of the project and the date of completion for each project.

G. Implementation Schedule (not to exceed two pages)

Include a detailed implementation schedule to transition to Network Operator with an estimated project start date of March 1, 2020. Note any key project milestones and timelines. Identify any assumptions used in developing the schedule.
**Attachment 1: Scope of Work for Culver City Fiber Network Operations**

The scope of work includes four major categories:

- Network Operations Center (NOC) and Inside Plant Maintenance
- Marketing and Business Development Consulting
- Lateral Engineering and Construction Management
- ISP Services (if applicable)

Outside Plant Maintenance (OSP), including locates, cable protection, call before you dig ticket screening, emergency restoration, and ticket maintenance, will be done by the City’s existing Outside Plant Maintenance vendor. Lateral construction work will be done by the City’s existing vendor.

**NETWORK OPERATIONS CENTER AND INSIDE PLANT MAINTENANCE**

The Operator will be responsible for 24/7 network operation, management, monitoring, and maintenance of the Network, and for facilitating non-discriminatory network access and interconnection by other providers and carriers. The Operator will be responsible for maintaining the Network to a high-quality standard, in line with similar fiber networks providing mission critical data services.

Routine and emergency Network maintenance and repairs, as well as network relocations, will be the sole responsibility of the Operator, managing the City’s existing Outside Plant Maintenance provider.

The Operator will be required to keep records that outline end of life and provide sufficient notice to the City of the need for update or upgrade the fiber, electronics, and other components on the Network over the life of the Operator Agreement such that its customers can be assured of adequate access to bandwidth services. The Operator will be required to keep equipment up-to-date and to maintain the quality and reliability of services offered on the Network. The City will purchase any required new equipment to be installed by the Operator.

Unless otherwise noted the Operator shall provide the City a monthly report summarizing activity and status.

1. **Network Operations Center**

   1.1 Oversee and manage a staffed Network Operations Center (“NOC”) twenty-four (24) hours a day, seven (7) days a week; includes the monitoring and surveillance of each hardware device, component, alarm notification, analysis, isolation and resolution, performance and configuration management, for backbone ring infrastructure. Engagement with underlying fiber providers, collocation providers, fiber locate management and hardware onsite support;
1.1.1 Assign ticket and ticket correlation of events and updates from end users from onset until closure of said event.
- Ticket Number
- Customer/Vendor
- Site
- Date & Time
- Problem/Status/Closure
- Contact Information

1.2 Maintain escalation list and procedures for Operator and City contacts internally and with all third parties (i.e., customers, colocation facilities, etc.). Operator and City shall furnish and update as changes occur, the current name, title, telephone number and cellular phone number of representative who shall keep informed of City’s planned and unplanned maintenance schedules and events.

1.3 Development of event types and notifications; Critical, Major, Minor, with associated SLA metrics.

2 Equipment Management

2.1 Maintain inventory of network card spares to reduce repair time in the event of card failure and also to reduce provisioning intervals for network growth.

2.2 Manage warranty and return materials authorization (RMA) process for City-owned equipment.

2.3 Primary point of contact with equipment vendor technical assistance center (TAC) to manage vendor’s equipment maintenance program.

2.4 In coordination with the City’s OSP vendor, manage inventory at City-designated warehousing space for equipment spares.

2.5 Work with the City to identify documentation requirements relating to equipment asset management (spares documentation should include physical location, date of purchase, lifecycle warning tag, and the bench stock with the dollar value and physical location)

2.6 Administer shipping and receiving for ongoing operation materials and equipment (relates to fiber asset management also)

2.7 Equipment management is limited to the City’s equipment, and expressly excludes service provider equipment

2.8 Provide the City on-line access to inventory records.
3 Fiber Asset Management

3.1 Process applications for licenses, including the management of moves, adds, and changes to the network infrastructure as well as managing the assignment and provisioning of fiber strands.

3.2 Create and/or maintain, processes, procedures, and practices for:
   A. Reporting processes
   B. Administrative rules
   C. Repairs
   D. Safety
   E. Construction
   F. Testing
   G. Other processes as necessary for efficient management.

3.3 Maintain safety and warranty requirements.

3.4 Maintain documentation via GIS software tool of the entire network platform, including the following components, and working with the City to determine GIS data exchange processes:
   A. As-builds per section
   B. Photo records
   C. Splice records
   D. Test results (OTDR)
   E. Customer records
   F. Project files (adds, moves, changes)
   G. Permits
   H. Designs
   I. Cost breakdowns

3.5 Maintain documentation of maintenance actions:
   A. Emergency outages documentation that includes: failure type; mean time to respond (MTR); mean time to repair (MTTR); restoration detail; restoration costs; trouble ticket detail and relevant reports
   B. Preventative maintenance documentation that should include: schedules; drive logs; trouble ticket detail; actions; parts; costs; reports

3.6 Maintain documentation of current maps of network:
   A. User friendly documentation of current maps that include GIS based; Google Earth version; CAD Version (.dwg) and/or PDF compatible version
B. As-built annotations with splice points, pole points, span lengths, route miles, OTDR measurements; and access points (if different from splice points)

3.7 Maintain documentation of fiber asset inventory:
   A. Fiber counts (categories) including the assigned matrix; what is open for assignment; and any suspect/bad fibers
   B. Location and type of splice cases/enclosures
   C. Location and type of hangers
   D. Location and type of storage, slack or splice bracket
   E. Location and type of fiber cable, including date in service
   F. Spares documentation should include physical location, date of purchase, lifecycle warning tag, and the bench stock with the dollar value and physical location

3.8 Compile and maintain periodic management reports as requested by the City. Reports may include:
   A. Summary of planned maintenance events
   B. Summary of unplanned maintenance events
   C. RMA tracking and reporting
   D. Safety information
   E. Other actions including adds, changes, moves, issues, sparing inventory, regulatory compliance, and construction
   F. SLA compliance statistics
   G. Email distribution and other contact lists
   H. Up-to date published maps.

4 Hub Facility Maintenance
   4.1 Preventative maintenance activities at three hub facilities in accordance with facility requirements provided by the City.

   4.2 In coordination with the City, administer security clearances and access rights at hub facilities.

5 Colocation Facility Maintenance – One Wilshire; El Segundo
   5.1 Manage cross-connect, acting on behalf of City with colocation facility owners; City or its customers will be responsible for cross-connect charges.

   5.2 Preventative maintenance activities at colocation facilities in accordance with facility requirements.

   5.3 In coordination with the City, administer security clearances and access rights at co-location facilities.
6 Engineering Support

6.1 Manage the process for vendor software upgrades for City-owned equipment.

6.2 Circuit design and maintain circuit records relative to the City-owned equipment.


7 Customer Interface

The Operator will provide customer service for all Network customers using a level of care and service that is consistent with industry accepted standards and the customer’s individual SLAs. The City will monitor the Operator’s customer service performance via KPIs for items such as number of help desk tickets, response times, etc. The Operator should develop a list of KPIs and include them in its proposal. The final KPIs will be mutually agreed-upon by the City and the Operator. The Operator will not be responsible for retail end-user care and customer service to the retail customers of the third-party ISPs.

7.1 Manage customer on-boarding process, including customer kick-off call, establishing project plan for customer installation and acceptance within delivery timeframes established in customer service order

7.2 Issue Routine Maintenance notifications to customers in compliance with contractual requirements.

7.3 First-level customer service (end user customer support will be provided by the service provider (City’s customer)).

7.4 Manage customer access to demarcation points in accordance with City and facility owner security requirements

7.5 Provide oversight of NOC for troubleshooting and status updates done thru NOC to end user, escalations through customer contact list. Operator to maintain customer contact list.

8 Reporting and Oversight of Maintenance Activities Performed By Outside Plant Maintenance Provider

Outside Plant Maintenance, including locates, cable protection, call before you dig ticket screening, emergency restoration, and ticket maintenance, will be done by the City’s existing Outside Plant Maintenance vendor.

8.1 Serve as POC to the Outside Plant Maintenance vendor.
8.2 Reporting on Outside Plant Maintenance vendor performance and compliance with the maintenance contract.

8.3 Update and maintain acceptable windows for routine maintenance and matrix of City requirements relating to maintenance activities in the City right of way (i.e., quiet hours, posted notices, etc.).

8.4 Review and verify invoices from maintenance (construction) vendor performing Outside Plant Maintenance.

**MARKETING AND BUSINESS DEVELOPMENT CONSULTING**

Unless otherwise noted the Operator shall provide the City a monthly report summarizing marketing and business activity and status.

9  **Develop and Implement City-Approved Sales and Marketing Plan**

   9.1 Pursue opportunities for customer-funded lateral deployment.

   9.2 Contribute to the City’s overall messaging and outreach, including supporting website content development and marketing materials.

10  **Implement City-Approved Processes and Procedures for Ongoing Customer Acquisition (from initial contact through contract execution)**

   10.1 Generate leads independently, as well as act on leads received from the City, to set up initial informational meetings and initiate contract negotiations.

   10.2 Provide sales engineering resources to provide consultative and customized network solutions to prospective customers of the Network.

   10.3 Support the City's legal resources throughout the course of contract negotiations with prospective customers of the Network.

   10.4 Oversee the contract review and approval process between and among customer and City resources, identifying unique customer requirements and technical or commercial issues.

11  **Administer City-Approved Processes and Procedures for Accounting and Financial Reporting**

   11.1 Work with the City's Finance resources to reconcile operational records to invoicing records to ensure accuracy of invoicing.

   11.2 Consult with the City with regard to industry practices on invoicing and collections, and support the City’s efforts to mitigate account receivables risks.
12 Administer City-Approved Processes and Procedures for Customer Service Inquiries, Invoicing and Payment Processes

The City will process and manage all billing and collections for the City’s customers of the Network. The Operator will not be responsible for retail customer billing and collection for the retail customers of third-parties. If the Operator is also an ISP on the Network, it will be responsible for billing its own customers.

12.1 Provide continuing "customer care" support post-sale, including, without limitation, addressing customer requests for add-moves-changes, additional services and questions regarding existing services.

12.2 Interface with the City’s billing resources to resolve customer invoicing inquiries and disputes. Provide periodic reporting to the City on issues raised, resolved and open.

LATERAL ENGINEERING AND CONSTRUCTION MANAGEMENT

13 Administer lateral engineering and construction management

Fiber laterals connect the Network’s existing backbone to locations and buildings where customers will use the Network. The term "lateral" refers to a fiber optic cable and appurtenant infrastructure connecting the Network to a designated demarcation point within a third party’s property. The City Council has approved approximately $1.5 million in City funding for the construction of approximately 45 laterals to locations identified as key customer locations. All City funded lateral construction will be approved at the City’s sole discretion and subject to the City entering into an agreement with the property owner. Other laterals will be funded by customers. The Operator will project manage the construction by the City’s existing contractor of laterals. The operator will provide engineering and design services as determined the City, and in coordination with the sales and marketing tasks in Section 10, above, for lateral construction.

13.1 Operator will designate a program manager to act as a single point of contact for all lateral-related construction and communications.

13.2 Operator coordinates and manages all lateral design activities with its selected engineering contractor and all Lateral construction activities with the City’s selected contractor for the design and construction of the laterals.

13.3 Operator conducts routinely scheduled lateral coordination meetings with the City, other affected agencies and utilities to review the progress of work, obtain additional input and directions, and to ensure that the City’s interests are being met.

13.4 Operator provides regular status reports to the City, identifying known or potential constraints and mitigation alternatives in advance of the Project Coordination meetings.
13.5 At the direction and request of the City, the Operator will prepare exhibits for meetings and general use by City staff.

13.6 Operator will direct and oversee its engineering contractor in the performance of the following sub-tasks. All drawings, plans and other design documents shall be in accordance with the latest edition of Standard Specifications for Public Works Construction and telecommunications industry standards applicable to the laterals.

13.7 Operator and the engineering contractor shall attend necessary pre-engineering walk outs with the building owner or customer to determine the work necessary for the connection of the property and building lateral to the Network backbone facility. The walk out will include the building interior and identify mode and method of construction, any existing lateral facilities that may be used for entrance into the building and space needed for the Minimum Point of Entry (MPOE). The collection of data shall contain all surface types, restoration requirements, existing utilities, landscaping and any surface items that may affect the construction of the lateral.

13.8 Operator prepares preliminary design drawings that include existing utilities, mode and method of construction, property lines and right-of-way boundaries. The drawing set shall include the cover page with a locator map and general specifications, a detailed construction drawing of any interior construction or entrance needs along with an overall construction drawing showing the tie in location to the backbone, property and building lateral construction and any manhole or hand hole placements necessary to construct the lateral. The preliminary design drawing package shall be submitted to the City for review and approval and for consultation with the property owner or customer.

13.9 Operator will determine and finalize material specifications for the laterals. Develop Bill of Materials table for incorporation into design documents. Prepare a preliminary cost estimate based on current unit prices and the draft Bill of Materials table.

13.10 Operator will coordinate with the City to identify necessary permits for the City to obtain as required for development and construction of the laterals and a timeline for applying for and receiving such permits. Provide supporting data necessary to the City’s efforts, including a permit drawings set with the appropriate stamped engineered drawings, for the City’s processing of necessary construction permits.

13.11 Operator will advance the drawings, plans and specifications to final completion (including a final construction package) upon receipt of review comments from the City, and property owner or customer.
13.12 Operator will serve as the construction Project Manager for all phases of lateral construction (project initiation to project close-out).

ISP SERVICES

14 If you are proposing to provide ISP services, please detail the scope of work you will provide in your answer to proposal question VI(D)(7).