



# City of Culver City

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## Staff Report

File #: 16-375, Version: 1

Item #: C-11.

**CC - (1) Waiver of Competitive Bidding and Approval of a Construction Contract Change Order with HP Communications in the Amount of \$850,000 for Lateral Construction and Authorization to the Public Works Director/City Engineer to Execute such Change Order; (2) Waiver of Competitive Bidding and Approval of an Amendment to the Existing Materials Procurement Agreement with MOX Networks, LLC for the Purchase of Lateral Construction Materials and Networking Electronics in an Amount Not-to-Exceed \$1,204,054; (3) Approval of the Lateral Selection Strategy as Detailed in the Report and Authorization to the City Manager to Select Properties for Lateral Construction; (4) Authorization to the City Manager to Amend the Construction Contract and Materials Procurement Agreement for the Construction of Customer Funded Laterals; (5) Approval of the Pricing Methodology as Detailed in the Guidelines for Customer Use of the City's Dark Fiber and Delegation of Authority to the City Manager to Negotiate and Execute Dark Fiber Use Agreements; (6) Adoption of a Resolution Delegating Authority to the City Manager to Accept/Consent to Interests or Easements in Real Estate and Other Interests or Rights in Leases and Licenses for the Network; (7) Authorization to the City Manager to Negotiate and Execute Certain Agreements and Instruments for the Installation, Construction, Development, Operation and/or Maintenance of the Network within a Total Amount Not-to-Exceed the City Approved Budget for the Network; and (8) Approval of an Amendment to the Existing Agreement with Baller Stokes & Lide, PC in an Amount Not-to-Exceed \$150,000 for Specialized Telecommunications Legal Services Related to the Municipal Fiber Network Project.**

**Meeting Date:** November 14, 2016

**Contact Person/Dept:** Michele Williams, Information Technology Department  
**Phone Number:** 310-253-5950

**Fiscal Impact:** Yes ☒ No ☐

**General Fund:** Yes ☐ No ☒

**Public Hearing:** ☐ **Action Item:** ☒ **Attachments:** ☒

**Commission Action Required:** Yes ☐ No ☒

**Public Notification:** (E-Mail) Meetings and Agendas - City Council (11/09/16); HP Communications (Chris Price, VP Operations on 11/07/16), and MOX Networks, LLC (Jason Misicka, Director of Sales, on 11/07/16).

**Department Approval:** John M. Nachbar (11/XX/16)

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## **RECOMMENDATION**

Staff recommends the City Council:

1. Waive competitive bidding and approve a change order to the Construction Contract with HP Communications in the amount of \$850,000 for lateral construction and authorize the Public Works Director/City Engineer to Execute such Change Order;
2. Waive competitive bidding and approve an amendment to the existing Materials Procurement Agreement with MOX Networks, LLC for the purchase of lateral construction materials and networking electronics in an amount not-to-exceed \$1,204,054;
3. Approve the Lateral Selection Strategy as detailed in the report and authorize the City Manager to select properties for lateral construction;
4. Authorize the City Manager to amend the Construction Contract and Materials Procurement Agreement for the construction of customer funded laterals;
5. Approve the Pricing Methodology as detailed in the Guidelines for Customer Use of the City's Dark Fiber and delegate authority to the City Manager to negotiate and execute Dark Fiber Use Agreements;
6. Adopt a Resolution delegating authority to the City Manager to accept/consent to interests or easements in real estate and other interests or rights in leases and licenses for the Network;
7. Authorize the City Manager to negotiate and execute certain agreements and instruments for the installation, construction, development, operation and/or maintenance of the Network within a total amount not-to-exceed the City approved Budget for the Network; and
8. Approve an amendment to the existing agreement with Baller Stokes & Lide, PC in an amount not-to-exceed \$150,000 for specialized telecommunications legal services related to the construction, implementation and operation of the Municipal Fiber Network Project.

## **BACKGROUND**

On November 9, 2015, the City Council took several actions related to the design, development, operation, and maintenance of the Municipal Fiber Network (Network). The Network would, among other things, provide the necessary infrastructure to facilitate the provision of high-speed Internet service to the City (for municipal purposes), to businesses in the target service areas, and to the Culver City Unified School District.

The Network consists of four essential components: the redundant fiber backbone, fiber laterals which connect from the backbone to the service locations, local interconnection sites within Culver City, and fiber connection to communication hubs located outside of Culver City (One Wilshire and El Segundo).

On June 27, 2016, the City Council awarded a construction contract to HP Communications as the lowest responsive and responsible bidder, for the construction of the Network backbone. On July 11, 2016, the City Council approved a budget amendment and construction contract change order to support construction enhancements recommended by the City Manager. The design of the backbone includes approximately 21 route miles of fiber with 576 fiber strand count and two additional 2" conduit in areas where new construction is planned. The additional conduit would be available for future growth if the City determined that there was a need for additional fiber in the future. Construction impacts and costs are greatly minimized when installing fiber where the conduit infrastructure exists. Construction of the Network backbone started on August 22, 2016. Currently, the construction effort is on schedule with regard to cost and schedule.

To date, priority has been placed on the design and construction of the Network backbone. This staff report will present recommendations related to the design, construction and selection of both City-funded and Customer-funded Network laterals. Additionally, this report will provide proposed pricing methodology for Customer use of the City's Network.

## **DISCUSSION**

While the backbone is the most integral component of the Network, it is unable to fully operate without fiber laterals. The fiber laterals are physical connections from the backbone to the location/building utilizing the Network. When the City Council approved the design, construction and operation of the Network on November 9, 2015, there was also a budget appropriation of \$1.5 million dollars specifically for the design and construction of laterals. This funding was approved to facilitate "jump-starting" the operation of the Network and to further stimulate economic development which is the goal of this effort.

### ***Construction of the Laterals***

HP Communications was awarded the construction contract for the Network backbone as the lowest responsive bidder. The construction began on August 22, 2016 and has been progressing well. Staff recommends utilizing this vendor for the construction of the laterals as there will also be economies of scale achieved with starting the lateral construction while the backbone construction is in process. In some areas, this will also reduce construction impacts where the laterals and backbone can be installed concurrently. Using the same vendor will also assist with efficiently coordinating the construction efforts. Staff recommends waiving competitive bidding for the construction of the Network laterals and approving a contract change order with HP Communications for lateral construction.

The construction cost for each lateral will vary based on various factors. Primarily, the length of the lateral will drive the cost along with other specifications that are unique to each location. Each specific location will need to be evaluated. HP Communications has provided an itemized price list (Attachment 1) for all potential construction activities that would be included in a lateral build-out. Some of the items included are directional boring, installation of conduit, placement of required hand-holes, pulling fiber cable, splicing fiber and testing of fibers. Each item details a fixed unit cost based on either linear foot or quantity. The proposed itemized price list was reviewed by the City staff and the pricing was determined to be comparable to the bid that was provided for the backbone construction. Each lateral location will be evaluated and the cost will be mutually agreed upon by the

City and HP Communications using the itemized price list. The City will review and administratively approve each lateral to be constructed and will issue a notice to proceed to HP Communications authorizing construction to begin for each lateral.

Given the above methodology, staff recommends approving a contract change order with HP Communications for the construction of the Network laterals for an amount not to exceed \$850,000.

Staff proposes that a fee be charged to customers to reimburse the City for the engineering design costs where a user has requested a lateral be installed. It is anticipated that such costs will be approximately \$3,000 per lateral. In addition, staff proposes that an administrative fee be charged to reimburse the City for staff time involved with processing, coordinating and facilitating these requests. Staff is still in the process of studying the appropriate administrative charge for this service and will return to City Council with a fee resolution at a future meeting.

### ***Procurement of Lateral Construction Materials and Network Electronics***

On May 9, 2016, the City Council waived formal bidding requirements and approved a procurement agreement with MOX Networks, LLC (MOX) to purchase fiber and related construction materials. At that time, it was determined that MOX had access to distribution channels that supply fiber and construction materials at very competitive pricing. Staff conducted an informal bid to compare the cost estimates and the results indicated pricing ranging from 30%-50% higher as compared to the pricing from MOX. Additionally, the high demand for fiber throughout the industry has resulted in longer lead times from order to delivery. MOX has been able to provide the fiber and construction materials within a timeframe that aligns with the construction project schedule. Staff estimates that fiber and construction materials for the Network laterals will not exceed \$530,000.

When the Network is ready to become operational, Network electronics will need to be installed at the three Culver City hub locations and at the communication hubs located at One Wilshire and El Segundo. This equipment will be used to administer, configure, and monitor the Network. The allocated budget for the networking electronics is \$674,054. A preliminary equipment list has been identified and again, staff conducted an informal bid to compare costs provided by MOX to other vendors. The vendors who responded to this informal request for bids detailed pricing that was significantly higher.

Based on the above facts, staff is recommending that the City Council waive formal bidding requirements for the purchase of fiber/related construction materials and network electronics, pursuant to Culver City Municipal Code Section 3.07.075.E.3 since compliance with the formal bidding requirements would be contrary to the best interest of the City and impractical, as it would likely result in higher materials costs and a delay to the Network project. Staff further recommends that the City Council approve an amendment to the procurement agreement with MOX for a contract increase of \$1,204,054 (i.e. \$530,000 plus \$674,054) for a total contract value not to exceed \$2,962,415.

### ***Lateral Selection Strategy***

As previously mentioned, the City Council has appropriated funding for the design and construction of laterals. While some individual businesses are interested in utilizing the Network for their own use, the City is making a significant investment in an open source fiber network with the expectation that Internet Service Providers (ISPs) will be interested in utilizing fiber infrastructure. Open source networks have been successful in lowering the cost of entry for ISPs because they are not required

to make a capital investment in the infrastructure to provide service in a specific area. The City's goal is to extend the Network via fiber laterals to buildings that would be rated as an ideal service location by the ISPs. This will assist in further attracting ISPs to service the business community of Culver City.

Ideal service locations are defined as multi-tenant commercial buildings with high bandwidth requirements. Staff has conducted extensive analysis and identified a list of approximately 50 buildings that are multi-tenant office buildings and located within the target service area of the Network (approximately 500 feet from a Network backbone splice point). Additional analysis was also performed utilizing business/tenant data to ascertain bandwidth requirements based on the business category. Additional analysis will be conducted to further examine bandwidth requirements, which will serve to prioritize the ideal locations. It is estimated that the appropriated budget for lateral construction will facilitate the construction of about 50 laterals.

Staff recommends the following strategy with regard to selecting the City-funded laterals:

1. Notification will be provided to the property owners of the commercial/office buildings that are categorized as an ideal service location. Property owners will be asked to submit an application. The application will require identification of building tenant spaces, bandwidth use, and additional information that will further determine priority.
2. Applications will be reviewed on a "first-come-first-serve" basis.
3. The City reserves the right to prioritize businesses and reject any applications due to disqualifying circumstances such as inordinately high cost of lateral construction, exclusivity contract on the property, unique building construction issues that make building the lateral cost prohibitive; or lateral construction does not comply with the City's environmental analysis and determination for the Network.

When the property clears the initial evaluation and the property owner agrees to participate in the City-funded lateral program, an agreement will be executed with the City to begin the engineering/design study and for the construction of the lateral.

It should be noted that this is considered the first phase on lateral construction which is expected to be completed in the fall of 2017. If the project is deemed successful, the City Council at its discretion may choose to reinvest revenue from the Network toward construction of additional laterals using a similar selection criteria.

In addition to the City-funded laterals, it is expected that there will be property owners and businesses that will want to extend the Network to their location. These laterals will be funded by the property owner. These requests will be addressed as they are received by the City. The same lateral selection criteria detailed above would apply with the one exception being cost as these laterals would be funded by the property owner. The engineering and construction work for these Customer-funded laterals will be performed by the same vendors who are currently contracted with the City and proposed by these actions to perform the design and construction of the City-funded laterals, and such work will be coordinated similarly. However, an additional agreement will be executed with the property owner that will detail terms for reimbursing the City for all engineering and construction costs of the lateral.

It is important to note that while these services will be paid by the property owner, the current vendors engaged by the City will be utilized. Thus, staff recommends that the City Manager be granted the

authority to amend the construction contract with HP Communications (for construction of the lateral) and the Materials Procurement Agreement with MOX (for the construction materials) to support Customer-funded laterals. This will not have an impact on the approved budget for the Network as all costs will be reimbursed.

### ***Easement Agreements***

In most cases, the laterals extending from the Network backbone to a service location will remain the property of the City, while located on private property. An easement and license agreement will need to be executed with each property owner to allow entry and construction on private property and to facilitate ongoing maintenance and access.

Staff recommends that the City Council authorize the City Manager to execute the agreements accepting the easements and licenses. Government Code Section 27281 requires that authority granted to an officer or agent on behalf of the legislative body to accept/consent to interests or easements in real estate be conferred by Resolution. The City Attorney's Office has prepared such resolution for City Council review and approval (Attachment 2).

### ***Network Pricing Methodology***

The Network has been designed as an open source network where it is intended that Internet Service Providers (ISPs) who do not have a footprint in Culver City will be able to utilize the City's infrastructure (dark fiber) to provide service to the business community. Additionally, local businesses can also directly license the City's dark fiber for their specific organizational needs such as point-to-point connectivity between multiple locations.

Since the inception of this project, staff have been conducting business outreach to inform the business community about the benefits of the Network. As a result of this outreach, the City has received inquiries from local businesses about licensing the City's dark fiber. Specifically, the inquiries are related to pricing for licensing infrastructure. In an effort to better understand the market and pricing structures, the City consulted with CTC Technology & Energy (CTC) to obtain an independent market analysis and to develop pricing guidelines that the City could use toward pricing the dark fiber infrastructure.

CTC is a reputable consultant in the telecommunications field. The firm was established in 1983 and primarily works with government entities. One of their core missions is to assist agencies with analyzing feasibility and determining economic projections for deploying a fiber network. The City also used CTC's services in this area in 2013 when CTC conducted a feasibility study regarding the deployment of the Network in Culver City. As a matter of policy, CTC maintains a non-biased/neutral position. They are not associated with any private vendor within the telecommunications industry nor do they sell any equipment nor bid on any construction contracts.

CTC delivered a report (Attachment 3) for the City's use, which provides an overview of dark fiber pricing methodologies and pricing guidelines. In summary, it is recommended that each dark fiber agreement should be individually negotiated. The pricing will be structured to ensure that the dark fiber rates are competitive with private and public offerings within the region. The report explains that dark fiber pricing varies within the market based on demand and other unique factors such as route availability, location, and the alternative cost to building the fiber in the desired location.

Specifically for the Culver City Network, it should be noted that this effort was not initiated for the sole

reason of delivering direct immediate financial returns. It was envisioned that the City will also benefit from indirect and sometimes intangible benefits related to enhanced economic development, improved strategic advantage, and the ability to even more effectively attract and retain creative office and technology companies. Given these objectives, the following revenue considerations are recommended:

Prices must be low enough to:

1. Encourage ISPs to leverage Culver City fiber to deliver new services.
2. Lower market entry barriers for new and alternative ISPs.
3. Facilitate making retail services available from alternative ISPs.
4. Enable the ISPs to obtain sufficient margins to cover their operating expenses and provide a reasonable profit.
5. Allow businesses and organizations to create affordable non-shared networks.

Prices must be high enough to:

1. Generate sufficient revenues to cover ongoing operations and maintenance expenses.
2. Generate sufficient revenues to recover costs incurred by the City to connect to a customer facility (drop cost) over the term of the dark fiber license.
3. Fund strategic expansion of the Culver City fiber footprint.
4. Potentially generate sufficient revenues to cover debt service on the City's original fiber investment.

Staff recommends that the City Council approve the pricing guidelines detailed in the report delivered by CTC and delegate authority to the City Manager to negotiate and execute Network dark fiber use agreements on behalf of the City upon review and approval of each agreement by the City Attorney.

### ***Legal Services***

The City Attorney's Office has been the main source of legal advice regarding the Network project. Legal staff oversees all agreements, easements, rights of way usage, and other land use issues. However, due to the complex, technical and unique nature of this project, there arose a need for specialized telecommunications legal guidance. The City Attorney's Office entered into an administrative contract not-to-exceed \$30,000 with the law firm of Baller, Stokes & Lide, PC (BSL), to assist in evaluation of these complex legal issues related to the municipal fiber network. Attorney Jim Baller is a recognized national expert in telecommunications and municipal broadband networks and has been able to provide the needed assistance to address this specialized area. It is anticipated that the services provided by BSL will exceed the \$30,000, as the project continues with construction, implementation and operation of the Network over the next 12-18 months. The City Attorney's Office recommends the City Council approve an amendment to the existing agreement with BSL in an additional amount not-to-exceed \$150,000, although it is not anticipated that the full amount will be utilized during the remainder of the fiscal year.

### **FISCAL ANALYSIS**

Approving the construction contract change order with HP Communications for the construction of the Network laterals would result in an expenditure not to exceed 850,000. Sufficient funding is available in the project budget for this expenditure.

Approving the amendment to the Materials Procurement Agreement for the purchase of lateral construction materials (\$530,000) and network electronics (\$674,054) would result in an expenditure not to exceed \$1,204,054. Sufficient funding is available in the project budget for these expenditures. Purchase of this equipment will result in recurring maintenance costs. The annual maintenance for this equipment is budgeted in the operations and maintenance for the Network project.

ACCOUNT	AMOUNT
HP Communications Contract Change Order	
20580000.730100.PT003 Improvements (lateral construction)	\$850,000
Materials Procurement Agreement with MOX Networks	
20580000.730100 PT003 Improvements (lateral materials)	\$530,000
20580000.732150.PT003 Equipment (network electronics)	<u>\$674,054</u>
	\$1,204,054

Regarding legal services, as discussed above, of the \$75,000 already allocated in the City Attorney FY 16-17 budget, there is approximately \$35,000 remaining to apply to the legal services pertaining to the project (account 10113100.611600). The Information Technology (IT) Department has already committed \$50,000 to fund legal services for FY 16-17, of which approximately \$30,000 remains (account 10124100.600200). In addition, IT has agreed, with concurrence from the Chief Financial Officer, that an additional \$50K for FY 16-17 may be used out of the Municipal Fiber Project contingency (account 20580000.910200.PT003) to support specialized telecom legal services. These identified funds, totaling approximately \$115,000 are available to pay for the additional legal services needed as the project continues.

## **ATTACHMENTS**

1. HP Communications Itemized Price List Proposal for Construction of Laterals
2. Resolution No. 2016-R\_\_\_\_\_ Resolution Providing Authority to City Manager to Accept/Consent to Interests or Easements in Real Estate and Other Interests or Rights in Leases and License for the Network
3. CTC Report of November 04, 2016 - Dark Fiber Pricing Guidelines

## **MOTION**

That the City Council:

1. Waive Competitive Bidding and Approve a Construction Contract Change Order with HP Communications in the Amount of \$850,000 for Lateral Construction and Authorize the Public Works Director/City Engineer to Execute such Change Order;
2. Waive Competitive Bidding and Amend the Materials Procurement Agreement with MOX Networks, LLC for the Purchase of Lateral Construction Materials and Networking Electronics in an Amount Not-to-Exceed \$1,204,054;



3. Approve the Lateral Selection Strategy as Detailed in the Report and Authorize the City Manager to Select Properties for Lateral Construction;
4. Authorize the City Manager to Amend the Construction Contract and Materials Procurement Agreement for the Construction of Customer Funded Laterals;
5. Approve the Pricing Methodology as Detailed in the Guidelines for Customer Use of the City's Dark Fiber and Delegate Authority to the City Manager to Negotiate and Execute Dark Fiber Use Agreements;
6. Adopt a Resolution Delegating Authority to the City Manager to Accept/Consent to Interests or Easements in Real Estate and Other Interests or Rights in Leases and Licenses for the Network;
7. Authorize the City Manager to Negotiate and Execute Certain Agreements and Instruments for the Installation, Construction, Development, Operation and/or Maintenance of the Network within a Total Amount Not-to-Exceed the City Approved Budget for the Network;
8. Approve an amendment to the existing agreement with Baller Stokes & Lide, PC in an amount not-to-exceed \$150,000 for specialized telecommunications legal services related to the construction, implementation and operation of the Network;
9. Authorize the City Attorney to review/prepare the necessary documents; and,
10. Authorize the City Manager to execute such documents on behalf of the City.