



City of Culver City

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Staff Report Details (With Text)

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On agenda: 4/23/2018 **Final action:**
Title: CC - (1) Approval of Services to be Provided by the Culver Connect Network (City's Municipal Fiber Network); and (2) Delegation of Authority to the City Manager to Add, Change, or Remove Services Provided by the Culver Connect Network as Determined Appropriate by the City Manager.

Sponsors:

Indexes:

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
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Meeting Date: April 23, 2018

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 ☒ **Date:**

Public Notification: (E-Mail) Meetings and Agendas - City Council (04/18/18);

Department Approval: John M. Nachbar

RECOMMENDATION

Staff recommends the City Council (1) approve the services that will be offered and provided to users of the Culver Connect Network; and (2) authorize the City Manager to add, change, or remove services offered and provided by the Culver Connect Network as determined appropriate by the City

Manager in his/her discretion.

BACKGROUND

On November 9, 2015, the City Council took several actions related to the design, development, operation, and maintenance of the City's Municipal Fiber Network. Specifically, the City Council authorized the City to build on and expand an existing fiber network of the City by installing fiber network infrastructure and ancillary facilities in Culver City in order to, among other purposes, encourage the growth of broadband services and facilitate economic and technological development in Culver City. This Network is officially being marketed and branded as "**Culver Connect**".

Culver Connect consists of four primary components: (1) the redundant fiber backbone of three interconnected geographical rings of fiber optic cable (dark fiber strands) within Culver City which may be available for use by other parties in furtherance of the purposes of the Network, (2) fiber laterals that connect the backbone to service locations as approved by the City, (3) local interconnection sites within Culver City (Network Hubs), and (4) fiber connection to telecommunication hubs located outside of Culver City (One Wilshire and Equinix/El Segundo). Culver Connect also consists of additional fiber and ancillary facilities, such as associated conduit, troughing, pedestals, splice enclosures, patch panels, and rack space in the Network Hubs, that are owned, controlled or operated by the City.

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 a 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 of new construction. The additional conduit would be available for future growth if the City determines that there is 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.

The construction schedule for the backbone was estimated to be completed within about 12 months. The construction team encountered delays which extended the timeline about seven additional months. Currently the construction effort for the Network backbone is complete. While the backbone is the 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 that will utilize the Network. On November 14, 2016 City Council approved a construction contract change order for HP Communications to construct the Network laterals. The first phase of lateral construction is in the process of finalizing engineering plans. After the plans have been finalized and approved, staff will obtain the necessary easements, licenses and approvals from the respective property owners to construct, operate and maintain the laterals and related facilities on their properties.

In addition to the construction of the Network infrastructure, other task items are currently in progress which are required before the Network can become operational. Some of these tasks are listed below:

- Testing and splicing the fiber throughout the 21 route mile system
- Make-ready construction at the three Network Hubs that are located at the Cardiff

Garage, Fire Station #3, and Nantworks.

- Provisioning and testing the fiber connection that will extend from the City to the telecommunications hubs at One Wilshire and Equinix/El Segundo.
- Installing and configuring the network electronics at the above three Network Hubs and telecommunications hubs.
- Establishing communication/operation protocols and incorporating those protocols into the Network Operations Center (NOC) which will provide continuous monitoring and support of the Network.

All of these tasks are progressing efficiently, and the Network is scheduled to be operational in June 2018.

DISCUSSION

In addition to the construction of the Network infrastructure and operational work described above, City efforts have also been focused on identifying and engaging with potential customers of the Network. These potential customers include, without limitation, Internet Service Providers (ISPs) and enterprise customers who are interested in licensing dark fiber. From discussions with potential customers, however, the City has realized that there is significant interest in obtaining other Network related services in addition to solely the license of dark fiber. As such, staff is requesting approval from the City Council for the City to offer the following services through Culver Connect:

- Long-Term and Short-Term Fiber License (or Long-Term IRU) - The end user will obtain from the City a license to use the physical dark fiber on a short-term or long-term (IRU) basis. This includes licensing fiber on the Network backbone and laterals.
- Fiber Splice Services - Splicing is the physical act of connecting two fiber strands together (i.e. fusing the fiber). This service is necessary when a user licenses, or has an IRU of, the City's dark fiber. At each connection point, the fiber strands owned by the City and the user are required to be fused together.
- Co-location Services - This service involves providing the user with physical space and power for any fiber related equipment that would be housed in one of the Network Hubs of Culver Connect. The user would pay market rates for the use of the space and the power.
- Cross-Connect Services - When a user places equipment at one of the Network Hubs of Culver Connect, such user may also request a physical connection (which is the "cross-connect") to another provider concurrently located in the Network Hub.
- Remote Hands and Escort Services - These services involve providing additional assistance to users to troubleshoot or resolve issues with the users' services that are not caused by the City's fiber or equipment, and to accompany users in accessing Culver Connect facilities.
- Transport Connectivity (i.e. "lit" service) - This service would be offered by the City and made available to a user who obtains a license or IRU of the City's fiber. The user may require connectivity from one of the Network Hubs of Culver Connect to one of the telecommunications hubs at One Wilshire or Equinix/El Segundo.

- Additional communications, information, or other communications-based services that can help the City achieve its goal of becoming a leading 21st Century community.

These services will further Culver Connect's initial goal of providing an open-access network that will facilitate high speed broadband within Culver City.

The services listed above are expected to generate revenue for the continued development, operation and maintenance of the Culver Connect Network. Staff plans to provide City Council with estimate revenue projections during the upcoming budget planning for fiscal year 2018-19.

In addition to the services to be offered and provided by Culver Connect, staff also requests that City Council delegate authority to the City Manager to approve, change, and remove services offered and provided by the Culver Connect Network as determined appropriate by the City Manager in his/her discretion. Staff will continue to monitor and evaluate services that are aligned with the goal of providing an open-access network. Any policy implications that may be encountered will be raised through the City Manager to the City Council for consideration as deemed appropriate or as required by applicable law.

FISCAL ANALYSIS

Approval of the requested actions described in this Staff Report has no direct financial impact on the budget already approved by the City Council for the Culver Connect Network. However, approval of the service offerings as outlined in this report will ultimately lead to revenue to the City's Municipal Fiber Network Enterprise Fund (Fund 205) to be used for the continued development, operation and maintenance of the Culver Connect Network. It is also anticipated that the Working Capital Loans from the General Fund (previously approved by City Council) will be repaid from revenues generated from the Network.

The Culver Connect Network was not initiated for the sole reason to deliver direct immediate financial returns. It is 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. These indirect benefits may prove to provide the most significant long-term returns to the General Fund in the form of increased tax revenues.

ATTACHMENTS

None.

MOTION

That the City Council:

1. Approve the services that will be offered and provided to users of the Culver Connect Network as detailed in this Staff Report;

2. Authorize the City Manager to add, change, or remove services offered and provided by the Culver Connect Network as determined appropriate by the City Manager in his/her discretion;
3. Authorize the City Attorney to review/prepare the necessary documents; and,
4. Authorize the City Manager to negotiate and execute such documents on behalf of the City.