



DATE: April 22, 2014

CATEGORY: New Business

DEPT.: Information Technology

TITLE: **City-Wide Google Fiber Project**

RECOMMENDATION

1. Direct staff to complete the Google Fiber City Checklist.
2. Authorize staff to prepare a streamlined permitting process for DIVCA franchise holders.
3. Authorize the City Manager to execute the Network Hut Lease Agreement and any associated amendments.

BACKGROUND

On February 19, 2014, Google Fiber ("Google") announced they are considering 34 cities in 9 metropolitan areas for installation of their high-speed Internet service, Google Fiber. Google has already installed fiber in Kansas City (in both Kansas and Missouri) and announced it will be installing fiber networks in Provo, Utah and Austin, Texas.

Google is currently offering the following pricing plans in Kansas City:

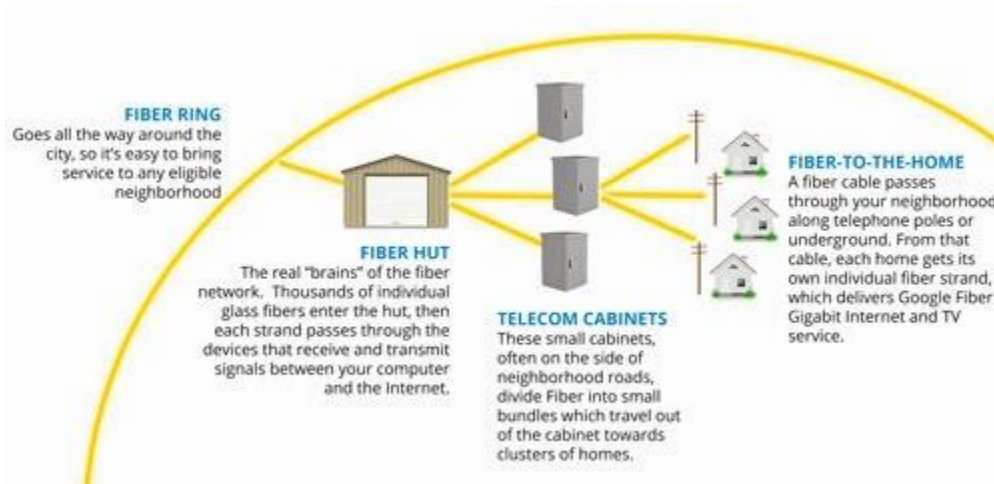
- 1 Gb/second Internet only: \$70/month.
- 1 Gb/second Internet and television: \$120/month.
- Basic Internet access (5 Mb/second): One-time installation fee of \$300 for seven years of Internet access with no additional fees.

The nine metropolitan areas being considered are Silicon Valley, Salt Lake City, Phoenix, San Antonio, Nashville, Atlanta, Charlotte, Raleigh-Durham, and Portland. The cities being considered within the Silicon Valley area are San Jose, Santa Clara, Sunnyvale, Palo Alto, and Mountain View.

Google Fiber California has a State franchise (DIVCA) to provide video services in Mountain View.

Google has divided its proposed project into two planning phases. The first phase requires each city to provide the information identified in the “Fiber City Checklist” (Attachment 1) by May 1, 2014. This checklist identifies the items they need to evaluate a city’s readiness for construction of a fiber network, which includes maps of poles, conduit, and existing utility services. Google also asks the cities to streamline processes (e.g., permitting procedures and access to local infrastructure) to make it easier for construction to move quickly. In addition to information and process requirements, Google anticipates leasing city property to install one to three Network Huts to house its equipment. The lease will be addressed in more detail later in this report.

In the second phase (May to December), Google will review the information provided by the cities to scope the costs and time lines for building a new fiber-optic network. Google will conduct a detailed study of factors that affect construction plans, such as topography (e.g., hills, flood zones), housing density, and the condition of local infrastructure. Based on this information, Google will make a determination whether to offer this service in Mountain View. Such a decision is expected by the end of the year.



Architecture of the Proposed Google Fiber Network

As shown in the diagram above, Google will deploy a fiber ring around the selected cities. The Network Huts (noted as “Fiber Hut” in the diagram above) will provide access to the ring network. Fiber from the huts runs to small fiber cabinets distributed across the city, which then distribute fiber to residences.

Google anticipates leasing city property to install one to three Network Huts to house its equipment. The huts are 9' H x 28' W x 12' D and need to allow 24/7 access by Google. Including access around the hut, the footprint for each hut and enclosure is approximately 1,400 square feet. An example from Kansas City can be seen below. The City can require or provide screening.



Fiber Network Hut

There are two sizes of fiber cabinets, depending on the number of homes served. The small (288 port) cabinet pictured below is 32" H x 16" W x 16" D and the large (567 port) cabinet is 32" H x 33" W x 16" D. The cabinets would be placed in the public right of way near the residences being served. The cabinets do not contain fans or motors and are therefore quiet. Google has indicated that the cabinets can be painted different colors if desired.



Small Fiber Cabinet

The exact number of fiber cabinets that will be deployed is not yet known, but based on the number of residences in Mountain View and the capacity of the cabinets, it is estimated that approximately 100 cabinets will be required.

ANALYSIS

This is an ambitious project that can significantly increase Internet access speeds for Mountain View residents. Google has proposed a permitting and inspection process that is significantly streamlined compared with the City's normal process to accelerate deployment of the network.

Staff has been compiling the requested information and reviewing the process requirements with the understanding that telecommunications law will require the City to make this same process available to any other provider that has a State franchise to provide video services.

Google proposes submitting plans with less detail than normally required by the City (including providing no site-specific traffic-control plans) and would like to submit a single permit application for the entire project. They have requested the City review and respond to their permit application within 10 days. In response to the issues raised by such a permitting process, staff has developed the following proposed approaches to address them:

- **Issue:** With current staffing levels, a comprehensive review of such a large permit application in such a short time is not possible.

Proposed Approach: Additional, temporary staffing will be required to review the application and advanced, accurate notice of the submittal will be required of Google to prepare for the review. The additional staffing would be funded by Google on a cost-recovery basis.

- **Issue:** The City generally requires a significant amount of detail on plans prior to issuance of a permit to minimize changes in the field, conflicts with other utilities, and disruptions to the public. Google's proposed approach leaves final, detailed assessment of field conditions and placement of the fiber conduit to the construction, rather than the design period.

Proposed Approach: Google's proposed approach will require more intensive field inspection to review final conduit locations and other field conditions. This effectively moves some of the plan review from the design period to the

construction period, requiring more inspection resources than is typical. Additional inspection resources will be required on a cost-recovery basis.

- **Issue:** With other utilities, a public notification process has been employed when placing aboveground cabinets so residents are informed of the proposed cabinet and are afforded an opportunity for input on the placement. In most instances, the installations are in utility easements, so formal approval by a property owner is not required. Through this process, planned cabinet locations are sometimes moved to satisfy residents' concerns about the appearance of the cabinets. In some cases, resident concerns cannot be completely satisfied and installation proceeds. Google has proposed no such notification process.

Proposed Approach: The City will propose a notification and feedback process for utility cabinets. This process will be streamlined compared with the current process. Staff will also work with Google to locate the cabinets in areas that are likely to be less objectionable, such as on side yards rather than front yards, near property lines rather than in the center of a property, etc.

- **Issue:** Google proposes using a "standard" traffic-control plan during construction. Because many different conditions exist on the City's streets, site-specific traffic-control plans are required on busy streets for the safety of the contractor's employees as well as the public.

Proposed Approach: Traffic-control plans will be required on arterial and collector streets.

With additional resources focused on this project, Google's general approach would be acceptable with some modifications (such as those listed above). Google has not yet informed the City where the conduits will be installed, the amount of conduit being installed (except to say it is a large-scale project), or how many crews/contractors would be working at any given time. It is, therefore, not yet possible to estimate the required resources.

Google anticipates leasing City property to install the Network Huts for a term of approximately 20 years. As part of the checklist process, Google requests the City to agree to the terms of a lease even though the sites will not be determined until Google makes a decision to install the system in Mountain View and designs the system. Google would lease the property at a negotiated fair-market value. The City can include site-specific terms when a site has been selected and also retains complete control over which property it would lease to Google. Staff will provide Google a few

possible locations. Should this project proceed, staff will bring a list of locations to Council for approval.

As previously mentioned, Google has asked for extensive mapping information about the City and will be designing their implementation plan from this data. The City does not give out sensitive City-wide utility information. It is staff's understanding that the majority of the fiber will be hung on existing utility poles. However, there will be some burying of some fiber. It is not known at this time how much will be hung versus buried. Staff will provide utility information on a need-to-know basis, as is currently done.

A California Environmental Quality Act (CEQA) assessment will also need to be performed for this project.

Google uses a model of "build-to-demand," so fiber is installed to areas that have expressed a desire to purchase Internet access. Google will not be forced to install fiber to areas where they feel there is insufficient demand for the service.

FISCAL IMPACT

The City will receive a franchise fee of 5 percent of gross revenues for services provided under the DIVCA franchise and this fee can be deposited in the General Fund. Because revenues are not yet known, staff cannot estimate the amount of this fee.

As with other large-scale utility projects, staff will propose to Google that the City recover actual plan check and inspection costs so that the additional staff resources required to process the application will have no fiscal impact.

CONCLUSION

Google Fiber is considering installing a high-speed Internet network in Mountain View and 33 additional cities across the nation. In order to be considered, the City must submit a "checklist" to Google by May 1, 2014. Google will then determine by the end of the calendar year if they are going to proceed with the cities who submitted the checklist. Staff will complete the items on the checklist by the May 1 deadline. Due to the nature of the project and issues outlined in this report, such as streamlining the permitting process for Google and other DIVCA franchise holders and executing a Network Hut Lease Agreement for the use of City property, staff would like to check in with Council prior to finalizing submission of the checklist.

ALTERNATIVES

1. Direct staff to not submit the checklist or continue efforts related to Google Fiber.
2. Direct staff to not prepare a streamlined permitting process.
3. Direct staff to not execute the Network Hut Lease Agreement.
4. Direct staff to negotiate different terms for the Network Hut Agreement.
5. Provide other direction.

PUBLIC NOTICING

Agenda posting, copy to Google Fiber, and notice to neighborhoods via Nextdoor.com (social media).

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450-04-22-14CR-E

Attachment: 1. Google Fiber Checklist