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Google Fiber City Checklist

Updated February, 2014

Google fiber

Let's get up to speed.

Over the last few years, gigabit Internet has moved from idea to reality, with dozens of communities working hard to build networks with speeds up to 100 times faster than what most of us live with today. People are hungrier than ever for faster Internet, and as a result, cities across America are making speed a priority. Over the next few months, we'll be working with your city, and 33 others, to explore the possibility of building one of these high speed networks in your community.

This checklist document is written specifically for the cities we're currently working with. But the items on this checklist are a collection of best practices recommended by the Fiber to the Home Council, the Gig U report and the U.S. Conference of Mayors and can help any fiber provider or city that's thinking of building a new network.

These are such big jobs that advance planning goes a long way toward helping us stick to schedules and minimize disruption for residents. While your city works on completing these items, we're going to work on a detailed study of local factors that could affect construction, like topography (e.g., hills, flood zones), housing density and the condition of local infrastructure.

Additionally, we will spend time talking with you during this process about how city leaders can get residents ready for Google Fiber, particularly those who don't currently use the Internet or have it at home. We want to help make sure that everyone in the community can take advantage of this opportunity.

Google Fiber is also exploring the possibility of deploying Wi-Fi in future Google Fiber cities. Requirements related to Wi-Fi are not included in this checklist, but we will be discussing our Wi-Fi plans and related requirements with your city as we move forward with your city during this planning process.

We are excited about the possibility of bringing Google Fiber to your city and look forward to working with you over the next few months.

Key Dates

Feb. 24th - Feb. 28th Cities meet with Google to review the checklist in detail.

Feb. 24th - May 1st Cities review and respond to tasks and requirements on the checklist.

Google and cities will hold regular calls to discuss progress and questions.

Google begins detailed studies in cities.

May 1st, Midnight PT Deadline for cities to respond to items on the checklist.

May - End of 2014 Google evaluates completion of the items on the city checklist and completes the detailed study.

This process will take some time, but we hope to have updates on which cities will get Fiber by the end of the year.

Fiber Ready Checklist

Building a new network is complex, and we will work with your city to make it quicker, more efficient, and less disruptive to your community.

There are three core items on our fiber ready checklist.

- **Provide information about existing infrastructure:** We're asking your city to provide accurate information about local infrastructure like utility poles, conduit and existing water, gas and electricity lines so we'd know where to efficiently place every foot of fiber.
- **Help ensure access to existing infrastructure:** We're asking your city to help ensure that we, and other providers, can access and lease existing infrastructure. It would be wasteful and disruptive to put up duplicate utility poles or to dig up streets unnecessarily, when we could use existing poles or conduit.
- **Help make construction speedy and predictable:** We're asking your city to make sure you have efficient and predictable permit and construction processes appropriate for a project as large as a Google Fiber network build.

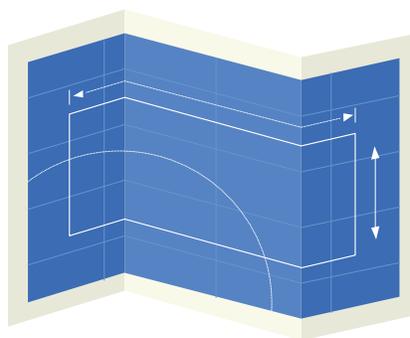
These three items are based on guidelines from the Fiber to the Home Council and the U.S. Conference of Mayors and clear a path for anyone willing to build a fiber network. We are not asking for any special treatment, tax incentives, or subsidies.

Item #1 — Provide information about existing infrastructure

As we work through our detailed studies and network design, detailed infrastructure data helps us understand where we can safely and efficiently place the fiber.

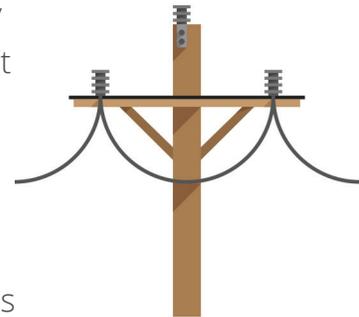
We ask that your city:

- gather and submit all required data asset requests as outlined in the Data Request List (Appendix 1A);
- identify which infrastructure and/or data is not owned, operated or controlled by the city.



Item #2 — Help ensure access to existing infrastructure.

Fiber providers need to string fiber along utility poles or bury it underground in protective tubing called “conduit.” It doesn't make sense for each provider to install duplicate poles, or to dig up streets multiple times where conduit already exists. So, we're asking for your help to ensure that providers have access to existing infrastructure. This makes the process faster, more efficient, more cost effective and significantly less disruptive.



We would like to see clear, predictable rules and reasonable terms for all providers to attach fiber to any utility poles that are within the public right of way. Providers of broadband Internet services, including IPTV, should have access to existing utility poles, city-owned ducts and conduit, on nondiscriminatory terms, in exchange for reasonable payment. Ideally, these terms would be at least equivalent to the rights made available to traditional cable operators and telephone companies per the FCC's current rules.

These rights may already be covered by state law, local ordinances or other agreements with infrastructure owners. If we cannot secure such rights, we may rely on the city to provide these rights locally.

To complete this item, we ask that your city:

- provide a description of any existing state laws, local ordinances, and/or commercial agreements that satisfy the attachment and use rights described above;
- work with us, as needed, to ensure that Google and other service providers have access to these rights.

Item #3 — Help make construction speedy and predictable

The items we outline in this section will help ensure that the construction process is predictable, fast, and as minimally disruptive for your city as possible.



We'd like to discuss how your city's existing permitting and construction process aligns with the scope and pace of the construction of a Google Fiber network. With agreed upon processes and timelines, we can keep construction schedules predictable and moving along quickly while minimizing the burden on the city.

For permitting and construction, we ask that your city:

- review the Google Fiber Permitting, Construction, and Maintenance Plan (Appendix 3A) and identify if your city's current practices differ;
- if your city's current practices do differ, please explain why and outline ideas to accommodate a large network build with accelerated timelines;
- upload your existing permit application for our review;
- identify any local, city or state-wide requirements that may impact the pace of a network build (Construction Constraints List - Appendix 3B).

Another important part of network design is determining where to place Google Fiber network huts. City-owned sites generally make sense as hut locations because they are zoned appropriately and dispersed throughout the city.

We would like to complete a Hut License agreement between Google Fiber and your city. Please review the Google Fiber model Hut License (Appendix 3C) and let us know if it will work for your city. Alternatively, please provide us with a form of agreement that contains similar rights so we can discuss in more detail.

We will sign the Hut License Agreement and work together to identify locations for huts during the network design process.

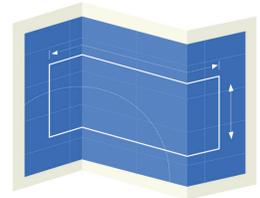
By the checklist deadline, we ask that your city:

- upload the final Hut License, as agreed upon between Google Fiber and the city.

Fiber Ready Checklist

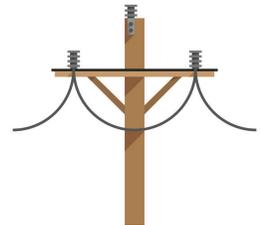
Item #1 — Provide information about existing infrastructure

- Gather and submit all required data asset requests as outlined in the Data Request List (Appendix 1A).
- Identify which infrastructure and/or data is not owned, operated or controlled by the city.



Item #2 — Help ensure access to existing infrastructure

- Provide a description of any existing state laws, local ordinances, and/or commercial agreements that satisfy the attachment and use rights described.
- Work with us, as needed, to ensure that Google and other service providers have access to these rights.



Item #3 — Make construction speedy and predictable

- Review the Google Fiber Permitting, Construction, and Maintenance Plan (Appendix 3A) and identify where your city's current practices differ.
- If your city's current practices do differ, please explain why and outline ideas to accommodate a large network build with accelerated timelines.
- Upload your existing permit application for our review.
- Identify any local, city or state-wide requirements that may impact a network build by reviewing and responding to the list of Construction Constraints List (Appendix 3B).
- Upload the final Hut License, as agreed upon between Google Fiber and the city.



Additional Resources

Google Resources

[Google Fiber - Network Overview](#)

<http://googlefiberblog.blogspot.com/2013/10/behind-scenes-with-google-fiber-how-we.html>

This Google Fiber blogpost gives a behind-the-scenes look at how we actually build Google Fiber including a basic network overview.

[Google Fiber Website - City Expansion FAQs](#)

<http://google.com/fiber/newcities>

Our website includes a set of FAQs about this checklist and process.

Third Party Resources

[CTC Technology & Energy's Gigabit Communities](#)

<http://www.ctcnet.us/wp-content/uploads/2014/01/GigabitCommunities.pdf>

This white paper reviews and suggests strategies for bringing broadband to a community, including discussion of the checklist items outlined.

[The Fiber to the Home Council community broadband toolkit](#)

<http://www.ftthcouncil.org/communitytoolkit>

The Fiber to the Home Council has aggregated a range of resources in their community broadband toolkit.

[The Fiber to the Home Council white paper on facilitating access to infrastructure](#)

<http://www.ftthcouncil.org/p/cm/ld/fid=47&tid=79&sid=1249>

The FTTH Council has outlined their perspective in this short white paper: "State/Local Gov't Role in Facilitating Access to Poles, Ducts, and Conduits in Public Rights of Way."

[US Conference of Mayors](#)

http://usmayors.org/resolutions/81st_Conference/resolutions-adopted.pdf

Last year, the US Conference of Mayors passed a set of resolutions supporting increasing broadband access.

Gig.U Strategies for a Gigabit

<http://www.gig-u.org/cms/assets/uploads/2012/12/GigU-Fall-2013-Update.pdf>

Gig.U is working with a number of communities on gigabit networks and summarizes a number of key strategies.

Sunlight Foundation Open Data Guidelines

<http://sunlightfoundation.com/opendataguidelines/>

The Sunlight Foundation lists some suggestions that may be of use as you think through data updating and potential open data initiatives.

KC Digital Drive Playbook

<http://www.kcdigitaldrive.com>

In anticipation of Google Fiber coming to Kansas City, MO and Kansas City, KS, the cities created a 'playbook' for making the most of this opportunity.

Government Resources

Federal Communications Commission (FCC) documentation

<http://www.ecfr.gov/> (CFR Title 47, Chapter 1, Subchapter C, Part 76, Subpart J)

The FCC has set up rules regarding equipment attachment. While the federal laws were not drafted with today's broadband providers in mind, they are a good model of how to determine reasonable terms and clear schedules for pole attachment process.

Federal Communications Commission's National Broadband Plan

<http://www.broadband.gov/plan/>

In its National Broadband Plan, the FCC estimated that the expense of obtaining infrastructure permits and leasing pole attachments and rights-of-way can total 20% of the entire cost of a fiber-optic network.

FCC's Broadband Acceleration Initiative

<https://www.fcc.gov/encyclopedia/broadband-acceleration>

The FCC has an ongoing Broadband Acceleration Initiative that is considering a range of reforms at the national level.

Appendix

Item #1 -- Provide information about existing infrastructure

1A: Google Fiber's Data Request List

Item #2 -- Help ensure access to existing infrastructure

2A: Examples of Existing Municipal Ordinances

Item #3 -- Make construction speedy and predictable

3A: Google Fiber Permitting, Construction, and Maintenance Plan

3B: Construction Constraints List

3C: Google Fiber's Model Hut License Agreement

Appendix 1A

Google Fiber Data Request List

Network Design & Fiber Route Planning

The data outlined below helps us determine how to most efficiently design our network and where our fiber routes would go. This data also helps us identify any areas that may require special consideration during our planning or construction process.

Addresses

- **Feature Type:** geospatial point; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - **Physical Address (i.e. Street Name, Street Suffix/Prefix, Street #, Unit # (if applicable) Zip Code, City Name)**
 - include multi-dwelling unit data with individual unit numbers where possible
 - **Address Type:**
 - (i.e. Apartment, Duplex, Triplex, Quadplex, Condo, Large Commercial Unit, Small Business Unit, Office Building, Restaurant, Single Family Unit, Church, Government, Vacant)

Streets

- **Feature Type:** geospatially correct polyline; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Street Name

Right of Way and Easements

- **Feature Type:** polygon; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Geo-reference
 - Type of Right of Way or Easement

City Boundaries

- **Feature Type:** polygon; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Jurisdiction name

Parcels or Lot Lines

- **Feature Type:** polygon; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Physical Address
 - Parcel Type (i.e. government, school, park, etc)
 - Easements (i.e. water, sewer, power, communications, etc)
 - Rights of Way

Poles: city owned, operated or controlled

- **Feature Type:** point; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Pole function (i.e. communications and/or utility)
 - Pole type (i.e. wood, concrete, steel, etc - or decorative)
 - Pole height and class
 - Pole ID
 - Operating entity (i.e. traffic, water, power department, etc)

Streetlights

- **Feature Type:** point; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Owner
 - Pole height
 - Pole ID
 - Photocell: indicate y/n
 - Bank-switched: indicate y/n

Overhead Strand (Guys and Anchors): city owned, operated or controlled

- **Feature Type:** polyline; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Type (ie: primary, secondary, service, etc)

Existing Underground Utility Routes

- **Feature Type:** polyline; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Type (i.e. primary, secondary, service, water, gas, other as available)

Manholes

- **Feature Type:** point; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Type (ie: sewer, water, utility)
 - Depth
 - Size
 - Operating entity (i.e. traffic, water, power department, etc)

Pavement Condition Index Score by Street (ASTM D6433)

- **Feature Type:** shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed**
 - City criteria for road repair in appropriate format
 - Score by street OR streets with scores that trigger extensive restoration

Zoning

- **Feature Type:** polygon; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Zoning type
 - Type description

Building Footprint

- **Feature Type:** polygon; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Physical Address

Minimize Disruption

The data below helps us minimize disruption during our construction process, as we would like to avoid unnecessary digging. Where possible, we will lease existing spare conduit or dark fiber and also try to coordinate with known construction projects. We

ask for potential hut sites to explore options ideally suited for minimal impact on the community.

Existing Spare Conduit Available for Lease

- **Feature Type:** polyline; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Location of existing conduit, preferably geospatially accurate data
 - Size and number

Existing Dark Fiber Available for Lease

- **Feature Type:** polyline; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Type (i.e. 288ct, 144ct, etc)
 - Fiber quality tests

Infrastructure Maintenance Plan (road and power)

- **Feature Type:** shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Street maintenance locations with extents and schedule
 - Pole maintenance areas and schedule

Potential Hut Site Locations by Address

- **Feature Type:** point; shapefile (.shp) or geodatabase (.gdb)
- **Attributes Needed:**
 - Type (i.e. fire station, police station, city property, substation, library, school, pump station, water tank, etc)
 - *Note: we would need space to set a 12'x30' precast one-story aggregation non-occupied building with surrounding space; approximate total 1400 sq ft.*

Appendix 2A

Examples of Existing Municipal Ordinances

Here are a few examples of local ordinances that have helped ensure access to existing infrastructure for all providers.

Lee County, FL:

"To enhance the public convenience and to minimize the placement of poles and wire holding structures within public ways, the franchisee shall enter into agreements for the joint or common use of poles or other wire holding structures where poles or other wire holding structures already exist for the use in serving the county or serving the public convenience. Where reasonable terms and conditions cannot be negotiated with the owners of such poles and wire holding structures, the franchisee shall demonstrate the unreasonableness of the negotiations and terms, to the county administrator's satisfaction, and request waiver of this provision." [Ch. 20, § 22-70.13\(h\)](#)
[\(1\)](#)

Anacortes, WA:

"A franchisee erecting or maintaining poles shall allow anyone constructing under the authority of this chapter and the city, joint use of its poles upon payment of a reasonable proportion of the cost of such poles installed and shall obey any order issued by the city's director of public works relative to the joint use of poles." [Title 5, Ch. 5.44, § 5.44.190\(D\)](#)

Norfolk, VA:

"The director of public works shall have the right to designate a pole for the joint use of the owner of such pole and other proprietors of lines, and to assign to each such joint user a certain section thereof on such terms as may be agreed upon. In the event of failure to reach such agreement, such director shall have the right to determine such terms, and to revoke the permit for such pole, unless such determination is accepted by the owner or proprietor thereof." [Ch. 42, § 42-92\(a\)](#)

Mobile, AL

"It shall be the duty of the city electrician to so direct the placing, stringing and attaching of wires upon poles erected in the streets and alleys of the city that the same shall cause as little obstruction, either to travel in the streets or to the use and enjoyment of private property, as possible, and to compel the joint use of poles wherever practicable. In case the joint users of any such pole are unable to agree on such joint use or the rental to be paid the owner of such pole for such use, the city electrician shall fix such rate, which shall be binding upon the parties and companies interested; provided, that either party may appeal from the decision of the city electrician as to such joint use or the amount of rental to be paid for the use of such pole for the privilege of attaching wires thereto, to the city council." [Ch. 19, § 19-37](#)

Port Townsend, WA

"A franchisee erecting or maintaining poles shall allow anyone constructing under the authority of this master ordinance and the city, joint use of its poles upon payment of a reasonable proportion of the cost of such poles installed and shall obey any order issued by the public works director relative to the joint use of poles." [Ch. 5.14, § 5.14.120\(D\)](#)

Appendix 3A

Google Fiber Permitting, Construction, and Maintenance Plan

This document details the ideal permit application, construction, and maintenance processes for Google Fiber. We've found that this approach to permitting and construction works well for a network build of this size.

As part of the checklist, we ask that your city review each of these items. In cases where your city has different processes and requirements from those outlined, please provide detailed notes on what the city's existing requirements or process are, so our engineering teams can work collaboratively to create a process that will work at scale.

Permitting Process

Google Fiber's Process and Standards:

- We plan to submit all permit application material to you electronically.
- For underground construction, we plan on submitting plan view only.
- All responses, including approvals, should be sent back to Google Fiber electronically.
- Permit applications will include the applicable area and the duration of at least one hundred and eighty (180) days to complete the proposed installation.
- We would like the applicable area to be as large as possible, ideally covering the entire city. If not, the applicable area should be a minimum of either:
 - twenty-thousand (20,000) households
 - three-hundred (300) route miles of underground installation.
- We are looking for a response within ten (10) days of submitting the permit application.
- If a permit application is not approved, we need to receive a detailed list of alterations needed to get the permit approved.
- The city should provide Permit Application communication through a single point of contact.

For Discussion:

- Do your city's process or standards differ from what is outlined? If so, please provide detailed notes on your alternative requirements or process.
- Do you have any ideas or suggestions to improve efficiency, speed and predictability of the permitting process with your city?

Uploads Requested:

- Please upload a standard form of permit application document that Google Fiber will be expected to use.
- Please upload your city's standard Conditions of Permit Approval.

Construction Process

Google Fiber's Process and Standards:

- The preferred installation method may be shown on the plan view of the permit, but will be determined by field conditions at the time of construction.
- Google Fiber will implement the city's standard traffic control plan at the time of installation of the Google Fiber network.
- The underground construction methods may include but are not limited to micro-trench, plow, open trench, directional bore and pneumatic bore.
- Twenty-four inch (24") horizontal separation from existing facilities will be maintained during installation, except where existing obstructions, underground congestion, or other reasons necessitate a lesser separation.
- Twelve inch (12") vertical separation from existing facilities will be maintained during installation, except where existing obstructions, underground congestion, or other reasons necessitate a lesser separation.
- Twenty-four (24") depth below existing grade will be maintained during installation, except where existing obstructions, underground congestion, or other reasons necessitate a shallower depth.
- When an open trench is utilized for construction in concrete or asphalt, a T-Cut method will be utilized for restoration, except where this method is not practicable.
- A single, full sidewalk panel will be replaced when any portion of a sidewalk panel is impacted, except by potholing.
- Pothole restoration will be limited to the circular area directly impacted by potholing activity, including in sidewalk areas.

- We plan to maintain an as-built description of changes required during the course of installation due to conditions on the ground. For proprietary reasons, Google Fiber will provide a PDF version of the plan view as-builts of the underground installation when required.

For Discussion:

- Do your city's process or standards differ from what is outlined? If so, please provide detailed notes on your alternative requirements or process.
- Is there anything else we should know about your city as far as installation of infrastructure goes?

Uploads Requested:

- Please upload your standard traffic control plan.
- Please upload other applicable specifications, for example those regarding:
 - Utility System Engineering Design Manual
 - Utility System Construction Standards
 - Line-clearing and Tree-Trimming Service
 - Arborist requirements for working around trees
- Please upload building code specifications. This is helpful as we plan for multiple dwelling unit designs. Specifications requested:
 - Fire Safety
 - Electrical/Telecommunications Wiring
 - Grounding
 - Utilities

Maintenance

Google Fiber's Process and Standards:

- For Google Fiber maintenance work activities, Google Fiber will provide forty-eight (48) hours' electronic notice to the Right-of-Way Operator's maintenance department before commencing planned work.
- Service wire to the home (drops) installation will be considered a maintenance activity.

For Discussion:

- Do your city's process or standards differ from what is outlined? If so, please provide detailed notes on your alternative requirements or process.

Uploads Requested:

Please upload documents setting out your standard maintenance notice requirements and any other relevant documents regarding maintenance process or timing.

Appendix 3B

Construction Constraints List

We'd like your help in identifying and determining ways to address any possible local, city or state-wide rules or regulations that would slow or otherwise impact construction. Please review and respond to the questions listed below.

Are there any rules or regulations regarding when work can be performed throughout the year?

Please upload your tree-trimming regulations and outline any other information relevant to tree-trimming.

Are there historical site regulations?

Are there landscaping requirements for new structures?

Are there any underground construction requirements beyond NESC standards?

Are there any other environmental factors?

Anything else that may impede or slow construction within your city?

Appendix 3C

Google Fiber's Model Hut License Agreement

NETWORK HUT LICENSE AGREEMENT

This Equipment Housing License Agreement (“Agreement”) is entered into by the municipal entity (“City”) and the Google Fiber company (“Licensee”) identified on the signature page of this Agreement. City and Licensee agree to the terms and conditions set forth below.

- 1. Purpose.** Licensee needs rights to occupy and use various real property sites that may be owned by the City. The sites will be used for the purpose of constructing structures that will house network equipment and fiber that are part of Licensee’s fiber optic network (“Network Hut”). The construction of each Network Hut will be based on the specifications described in Exhibit A to this Agreement, which may be amended by Licensee.
- 2. Location of Sites for Network Huts.** Licensee will identify and propose to the City the location of various City owned sites. Licensee and City will work together to agree upon each site to be used for each Network Hut. When Licensee and City agree upon specific sites, the parties will complete and sign the form attached as Exhibit B to this Agreement (“Site Terms”) for each site (“Network Hut Site”). The Site Terms include a legal description of the Network Hut Site, the fees to be paid for use of the site and any other special terms or requirements applicable to the Network Hut Site. Licensee’s occupancy and use of each Network Hut Site will be subject to this Agreement, including the terms set forth in the applicable Site Terms.
- 3. Licensee Rights and Obligations.** City grants to Licensee the right to access, enter, occupy and use each Network Hut Site at any time for the purpose of constructing, operating and maintaining each Network Hut. City grants these rights solely to the extent it has such rights, title and interest in to the Network Hut Site, without any express or implied warranties. Licensee will obtain all applicable licenses, permits and other authorizations required to construct, operate and maintain the Network Hut and offer Licensee’s services. Licensee will construct the Network Hut in accordance with all applicable laws and permitting requirements. Licensee will use and maintain the Network Hut Site in accordance with all applicable laws and reasonable requirements and will keep the site secure (based on applicable standards) and reasonably free from debris, litter and graffiti.
- 4. Effective Date and Term.** This Agreement is effective on the last date it has been signed by both parties (“Effective Date”). The initial term of the Agreement is twenty (20) years from the Effective Date. Following the initial term, this Agreement shall renew for successive two (2) year periods unless City provides Licensee with written notice that it does wish to renew the Agreement. City must provide such written notice at least ninety (90) days prior to any renewal date of the Agreement.
- 5. Termination of Agreement or Site Terms.** Licensee may terminate this Agreement or the Site Terms for a specific Network Hut Site at any time with thirty (30) days written notice to the City. City may terminate this Agreement in the event of a material breach of this Agreement by Licensee and Licensee fails to cure the breach within sixty (60) days of receipt of notice from City. City may also terminate the Site Terms for a Network Hut Site by providing a minimum of one hundred eighty (180) days written notice to Licensee if the City determines that the applicable Network Hut Site is needed for a compelling public purpose. Following such written notice, City agrees to use its best efforts to find an alternative City owned site that Licensee may use as a replacement. Upon any termination or expiration of this Agreement, in whole or in relation to a particular Network Hut Site, Licensee will vacate premises and return site to its

original condition other than removal of any concrete foundations.

6. **Fees and Costs.** Licensee agrees to pay to City the fees set forth in the Site Terms for each Network Hut Site. The fees shall be paid on an annual basis for each Network Hut Site. Licensee shall be responsible for all its costs associated with construction, operation and maintenance of the Network Hut and Network Hut Site. Payments shall be delivered by Licensee within forty-five (45) days of the payment due date agreed upon by the parties.
7. **Indemnification.** Licensee will defend and indemnify City, its officers, elected representatives, and employees from any claims and liabilities related to any third party claim for property damage, personal injury or death to the extent caused by Licensee or its contractors. Licensee will have the right to control the defense of any such claim. If, in City's reasonable judgment, a conflict exists between the interests of City and Licensee in such a claim, City may retain its own counsel whose reasonable fees will be paid by Licensee.
8. **Limitation of Liability.** NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT. THE PARTIES ACKNOWLEDGE THAT THIS LIMITATION SHALL BE SUBJECT TO AND MAY BE LIMITED BY APPLICABLE STATE LAW.
9. **Insurance.** Licensee will carry and maintain general liability, workers compensation and other customary types of insurance applicable to the use of Network Hut Sites. The insurance coverage amounts shall be reasonably adequate based on the use of the Network Hut Sites and shall be issued by insurers duly qualified to offer and bind coverage within the state where the Network Hut Site is located.
10. **Notice.** All notices related to this Agreement will be in writing and sent to the address set forth in each signature block to this Agreement. Notices are effective (a) when delivered in person, (b) upon confirmation of a receipt when transmitted by facsimile transmission or by electronic mail, (c) upon receipt after dispatch by registered or certified mail, postage prepaid, (d) on the next business day if transmitted by overnight courier (with confirmation of delivery), or (e) three (3) days after the date of mailing, whichever is earlier.
11. **General Provisions.** This Agreement is governed by the laws of the state where the Network Huts are located. City and Licensee agree that City shall make the entirety of the rights and terms set forth in this Agreement available to other service providers in a non-discriminatory manner. Neither party will be liable for failure or delay in performance to the extent caused by circumstances beyond its reasonable control. This Agreement may not be assigned by Licensee without the consent of City except for assignments to Licensee's affiliates or in connection with a merger, acquisition, sale of network assets or similar transactions. This Agreement sets out all terms agreed between the parties and supersedes all previous or contemporaneous agreements between the parties relating to its subject matter. This Agreement, including any exhibits, constitutes the entire Agreement between the parties related to this subject matter, and any change to its terms must be in writing and signed by the parties. The parties may execute this Agreement in counterparts, including facsimile, PDF, and other electronic copies, which taken together will constitute one instrument. Each party to this Agreement agrees to: (a) use electronic signatures; and (b) be subject to the provisions of the U.S. E-SIGN Act (i.e., the Electronic Signatures in Global and National Commerce Act (ESIGN, Pub.L. 106-229, 14 Stat. 464, enacted June 30, 2000, 15 U.S.C. ch.96).

LICENSEE: _____

CITY: _____

(Authorized Signature)

(Authorized Signature)

(Name)

(Name)

(Title)

(Title)

Address: 1600 Amphitheatre Parkway
Mountain View, CA 94043

Address: _____

Date:

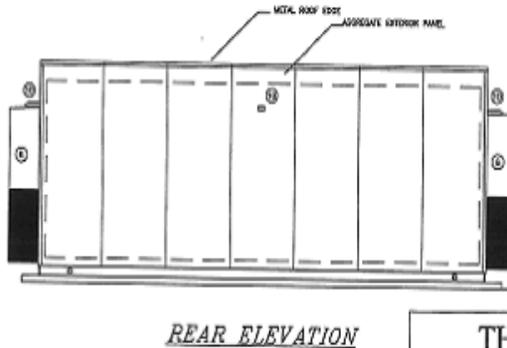
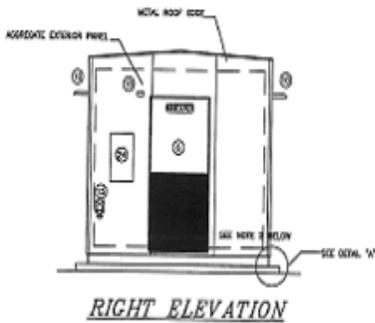
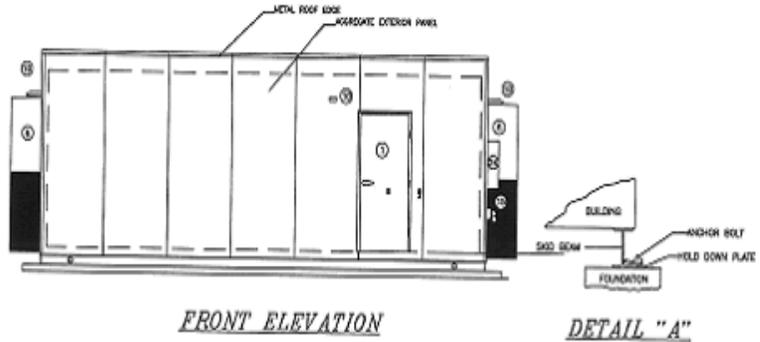
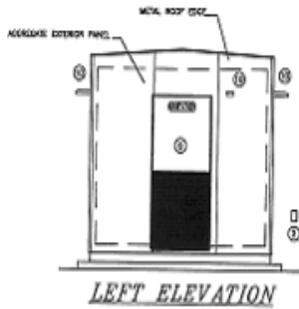
Date:

Form Agreement

EXHIBIT A
NETWORK HUT SPECIFICATIONS



EXHIBIT B



1. NO TAGS OR ANY MARKING IS TO BE SHOWN ON THE EXTERIOR OF THE BUILDING OR DOORS.
2. INSTALL 8"X8" ALUMINUM PLATE ON THE INTERIOR OF THE BUILDING FOR ALL TAGS AND INSIGNIAS.
3. ADD AN EXTENSION TO EACH AIR CONDITIONER DRAIN TUBE TO DRAIN WATER AWAY FROM THE FOUNDATION.

PROJECT
GOOGLE FIBER

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THERMOBOND BUILDINGS	
<small>209 N. Court 7.0, Box 445, Elk Point, SD 57028-0445 Phone: 605-306-2283, www.thermobond.com</small>	
<small>Scale: 1/16" = 1'</small>	EXTERIOR LAYOUT FOR
<small>Date: 7/24/12</small>	11'-6"W. X 28'L. X 9'H. BLDG.
<small>Drawn By: DRL</small>	<small>PROJECT NUMBER:</small>
<small>Approved By:</small>	<small>Drawn Date: 8/12/12</small>
	<small>Drawing Number:</small> AGB8581 <small>PAGE 6 OF 15</small>



EXHIBIT B

NETWORK HUT SITE TERMS

- 1. Legal Description of Network Hut Site Location (describe below or attach legal description).**

- 2. Annual Fees:**

- 3. Other terms or requirements applicable to Network Hut Site.**

LICENSEE: _____ **CITY:** _____

(Authorized Signature)

(Authorized Signature)

(Name)

(Name)

(Title)

(Title)

Address: 1600 Amphitheatre Parkway
Mountain View, CA 94043

Address:

Date:

Date:

Google fiber

Visit us at google.com/fiber