#### CONTACTS IN THE BUREAU OF DEVELOPMENT SERVICES:

Land Use:

Jill Grenda, Supervising Planner Jill.grenda@portlandoregon.gov 503-823-3580

Building Code:

Andy Peterson, Inspection Manager andy.peterson@portlandoregon.gov 503-823-7883

## Assumptions:

**Trunk line/ring:** We understand this work will occur within the ROW which will be/is in the jurisdiction of either City, County or State Transportation agencies, and permits will be processed through those organizations.

**Attachment to poles and above ground lines:** We understand this work will occur within the ROW which will be/is in the jurisdiction of either City, County or State Transportation agencies, and permits/agreements will be processed through those organizations.

**Fiber Cabinets:** We understand that the "cabinets", detailed as metal boxes of a standard size 2'x2'x4', will be located in the ROW and not on private property. If this is correct, these will be reviewed and permitted by the appropriate transportation agency. Note: See Zoning Appendix regarding above grade cabinets requirements in Design Zones.

If cabinets are located on private property, they will be required to be permitted (zoning permit), reviewed similarly to mechanical units, and will be required to conform to the zoning code (Title 33) requirements for each zone. Zoning Permit Application: <a href="http://www.portlandoregon.gov/bds/article/71706">http://www.portlandoregon.gov/bds/article/71706</a>

**Fiber Huts:** Ongoing vehicle access to the huts will be required. Dependent upon site selection this may require creation of new curb cuts, drive approaches, and driveways. Separate ROW permits will be required for each new curb cut/approach. Paved driveway and screening (landscaping) should be assumed as a required element, and can be included with the Hut permit.

# To keep in mind in designing the network: Zoning

- Locating the huts in Residential (R) and Open Space (OS) zones would require a
   Conditional Use review. Those processes are expensive (they require a \$4K pre application conference, and then a Type III land use review that takes about 4-5 months
   to complete), before permits can be submitted for the proposed development.
- Commercial zones would also likely require a lower level of land use review
   (Adjustment), to waive standards that the huts, as proposed, would not meet, such as street-facing window and main entrance requirements, among others. Those zones are identified as "conditionally recommended".
- The only zones that would be relatively problem-free (provided they contain none of the overlays that are referenced in the "zoning" paragraph) would be industrial and employment zones, specifically IG1, IG2, IH, EG1, EG2. All other zones would either

- require some level of land use review OR an ordinance adopted by Council to waive the relevant portions of the zoning code for the huts.
- Installation of underground fiber, Cabinets and Huts will be best served by avoiding, or at a minimum limiting, selecting and/or disturbing properties that include environmental, greenway, design or historic zoning (see provided zoning maps and zoning information related to possible land use review actions).
- There are portions of the City that have seasonal limitations on ground disturbing activities due to impacts on endangered species (Balch Creek). Plan to work around those seasonal limitations.

#### State and Federal considerations

"In water work windows" for the Willamette River and other water bodies of the state or federal government should be considered when assessing all river crossing options that would impact the water body, wetlands, riparian areas, etc.. Recent efforts by other public and private agencies have had success with completely boring under the river or attachment to existing structures that bridge the water way, and in both instances avoid sensitive lands adjacent to the water way, are your best options. In these instances the work is not subject to "in water" reviews, which are typically multiple state and federal agencies, along with City review – time consuming and multi-layered.

See In Water Work window link is found here for various rivers:

http://www.dfw.state.or.us/lands/inwater/Oregon\_Guidelines\_for\_Timing\_of\_%20InWater\_work2008.pdf Total bigger picture decryption is located here:

http://www.oregon.gov/dsl/PERMITS/docs/water\_related\_permits\_user\_guide\_2012.pdf

-

#### Structural review

 Photos of hut locations in other jurisdictions show what appear to be alternate fence solutions (different than chain link) that will need to be reviewed and permitted in those specific situations. Review will occur as part of Building Permit application.

#### **Electrical**

- In general, installation of fiber up to and within residential structures (1 & 2 Family) and up to and within multi-dwelling structures (3 or more residential units) is typically exempt from permit when installed by a telecommunications service provider (TSP) when within structures of not more than 4 dwelling units or not more than 10 telecommunication outlets. Exceeding those limits would require the work be performed by a licensed electrician and an electrical permit for the limited energy panel and one for each dwelling. "Telecommunications service provider" means a telecommunications carrier as defined in ORS 133.721 or a telecommunications utility or competitive telecommunications provider, both as defined in ORS 759.005.
- Electrical permits will be required for the power drop to each "hut". Use the link to Electrical Permit Application to apply for Service Reconnect.

#### Mechanical

State approval of the structure may/may not include the A/C units on the Huts. If not included at the time of or as part of the State review and approval, they can be permitted via BDS Mechanical trade permit.

#### **Fiber Huts**

The necessary information and applications required for permitting Hut placement on private property is provided in the links below. Standard will be Building permit application with required fee and documents, Electrical permit application with fee. The City will provide an electronic submittal portal for work on private property. The City wide contact is Mary Beth Henry, and BDS will assign an individual to work as the single point of contact for private property development, working directly with the Google team and interfacing with the required review groups. The intent is that these conveniences will make the process more efficient.

Building permits for the Huts will be required. The presumption is that Google will pursue one of the two options for permitting the prefab structures through the State (see detail below). (As of 3/14/14, the State recommends that Google submit plans for the buildings to be reviewed through the Prefabricated Structures Program.) If the State reviews and approves the Huts, including the internal electrical services and HVAC units, reviews by the City of Portland BDS Life Safety and Structural staff will be limited to the hut foundation and connection of the hut to the foundation, the fence if over 6 feet tall, zoning code requirements specific to each site, and stormwater disposal. Based on communication with Google construction, the anchorage of the hut to the foundation will require Special Inspections (Chapter 24.20 of the City of Portland building regulations). The same Special Inspection agency may be used for all Huts but must be specified in each jurisdiction. See Special Inspection Program http://www.portlandoregon.gov/bds/37059

If a new curb cut and driveway is required each jurisdiction will review that portion of the development in tandem with the building permit submittal with regard to the Bureau of Transportation requirements, site zoning requirements, erosion control measures and review for any storm water issues. A Transportation ROW permit will be issued in conjunction with the Building Permit for the curb cut, drive approach and any associated sidewalk repairs.

While your contact for the process will confirm all of the below with the appropriate bureaus, the standard requirements for a complete permit submittal for the construction you have indicated would include:

- 1. a completed Building Permit Application http://www.portlandoregon.gov/bds/article/71706
- 2. a completed Electrical Permit Application http://www.portlandoregon.gov/bds/article/71707
- 3. an Erosion Control Plan (may be part of the site plan or grading plan
- 4. Mitigation Form and/or Stormwater Plan identifying stormwater discharge points, and
- 5. Four (4) copies each of Site, Architectural, Civil, Structural, Mechanical, Electrical, Plumbing, and Stormwater Plans for the area of proposed work and areas affected by such work.

If the Huts are reviewed and approved via one of the State programs, proof of the label or seal will be required. City of Portland will coordinate with the State on what elements were included in the State approval – Hut only or Hut and Foundation.

Given the response from Google construction teams regarding the connection of the Hut to the foundation, it is likely Special Inspections will be required for the proposed anchors. Identification of a Special Inspector and a summary report for each Hut will be required prior to final approval of the Building Permit inspection process.

## <u>Prefabricated Structures</u>

The State of Oregon offers a permitting process for Prefabricated Structures that would streamline the metro area review of these structures.

#### General:

The prefab section is best suited for structures that are built off-site in a factory somewhere and incorporate enclosed construction, meaning that there are portions of the structure that require inspection at some phase of the construction that cannot be seen when it arrives on site because work has progressed beyond a point where those elements are visible. Manufactures can submit a "master plan" for review and once it is approved, can build multiple units under that approval, without having to resubmit plans.

Additionally, manufacturers can register with us and build certain structures under the "Quality Control" program. This program provides for a manufacture to submit their QC program, and when approved, build that product on an ongoing basis without needing each individual unit inspected. This works well for structures that are shipped without electrical and/or plumbing enclosed within the structure.

In both of these processes, a tag is issued for each completed unit, identifying what it is, what standards it was built to and that it is a legal structure. The tag is recognized by the local jurisdictions throughout the state as an indicator that the structure went through a legal process and it complies with the code.

## Specific info:

In the material provided, Thermobond was listed as the manufacturer – they are already registered with the state.

Thermobond has many existing "Master Plans" already approved. If this structure is different from the approved versions, they would need to submit the plan for review and pay a plan review fee (would need additional info to provide exact dollar amount). Review time for the state is approx. 5 days.

Each structure would need a tag – tags are \$50 each. The State could sell the number of tags needed for the entire project in one transaction, to reduce paperwork.

Once each structure is in Portland, each would need an electrical final inspection. That can be performed by the representative City or the State. The State charges an hourly rate of \$68 per hour, and would apply to drive time so it would be best to have several ready at once if possible.

### *More prefabricated structures information:*

http://www.cbs.state.or.us/external/bcd/programs/prefab/prefab.html. This link connects you to forms, applications etc.

The Permit Technician for the State Prefab program is: MaryJane Whittemore (503)378-6237 or <a href="MaryJane.Whittemore@state.or.us">MaryJane.Whittemore@state.or.us</a> She would be the primary point of contact to purchase permits, coordinate plan review, calculate fees, order labels etc.

#### Links

- Oregon Structural Specialty Code Link:
   <a href="http://www.ecodes.biz/ecodes\_support/free\_resources/Oregon/10\_Structural/10\_ORStructural\_main.html">http://www.ecodes.biz/ecodes\_support/free\_resources/Oregon/10\_Structural/10\_ORStructural\_main.html</a>
- Erosion Control manual & illustrations:
  - o Manual: <a href="http://www.portlandoregon.gov/bds/article/94539">http://www.portlandoregon.gov/bds/article/94539</a>
  - o Illustrations: http://www.portlandoregon.gov/bds/48104
- Building Permit Submittal:
  - o Working to establish an electronic portal for submittal.
  - What plans do I need for submittal: http://www.portlandoregon.gov/bds/article/93021
- Electrical Permit Application: <a href="http://www.portlandoregon.gov/bds/article/71707">http://www.portlandoregon.gov/bds/article/71707</a>
- Cities or Counties may be the local jurisdiction for zoning approval
  - Multnomah County pockets: West Hills, Dunthorpe subject to City zoning and land use regulations.
  - Unincorporated Multnomah Co: County reviews for LU regulations, EC, storm water, City reviews Building code related items

## **Zoning Appendix**

The Land Use Services division of BDS has done an analysis on the zoning implications of permitting the proposed Google fiber optic network, and has the following recommendations for Google to consider when siting the components of the network:

**Fiber Cabinets** (2'x 2'x 4' metal boxes): These are viewed by the Zoning regulations as mechanical equipment. If they are located in City rights of way, there are no zoning issues that apply except in the Central City Design District. In those areas, they would need approval through a Design Review process unless they can be considered a "standard" improvement in the right of way, per the Bureau of Transportation. The process to have the telecom cabinets be considered, "standard" improvements in the right of way involves a hearing and decision by the Design Commission.

If located on lots (rather than in the right-of-way), the telecom cabinets are subject to setbacks from property lines in all zones. In addition, they need screening (6' tall, fully-sight obscuring fence) from the street and from abutting residential properties in the multi-dwelling, commercial, industrial, and employment zones. There are no screening requirements for them in residential zones.

**Fiber Huts:** These are considered "Buildings," as defined by the Portland Zoning Code. On City of Portland owned property that is not in the right of way, they will need to be permitted as buildings. The structures would fit into the, "Basic Utilities," use category, which is allowed with no land use review in most of the City's commercial, employment, and industrial zones (see zones coded as, "Low," in the column entitled, "Land Use Review likelihood," on attachment "A"). Basic Utilities can only be allowed through a land use review in residential zones, Open Space (OS) zone, and the Central Employment (EX) and Central Commercial (CX) zones, so BDS recommends avoiding those zones as part of Google's siting criteria.

In addition to the use allowances, each zone has a number of development standards that apply to buildings. Commercial zones, and some overlay zones (additional requirements in addition to the base zone designation) contain standards that would be problematic for siting the huts, such as main entrance and ground floor window requirements, maximum street setbacks along transit streets, and requirements for buildings to be connected to streets with pedestrian ways.

Requests to waive or modify standards are processed through a land use review called an Adjustment Review. This is a review process in which an applicant's proposal is evaluated against a set of approval criteria. Adjustments require two mailed notices to surrounding property owners within a specified radius of the site. The first notice invites the recipients to comment on the proposal, regarding if it meets the approval criteria or not. The second notice is the decision on the request, and it also provides information on the appeals process. Adjustment decisions have a local appeal process available, through an Adjustment Review committee. Adjustments take approximately 10 weeks to complete.

Zones and overlay zones that would likely require Adjustments for standards to permit the Fiber huts as proposed are shown on Attachment "A" as only "Conditionally Recommended," for this reason.

Base zones and overlay zones that would likely require other types of land use reviews, such as Greenway Review, Design Review, or Environmental Review, are listed as "Not Recommended".

**Vehicle Areas:** All vehicle areas must be paved and meet location and screening standards. On sites with existing vehicle areas, the existing vehicle areas may be used to access the huts. The placement of the huts may not cause existing vehicle areas to move out of conformance with parking and vehicle area standards. On sites where new vehicle access is proposed, the locations where vehicle area is allowed is determined by the base zone designation. Generally, minimum setbacks and landscaping are required between the proposed vehicle area and abutting lot lines. The screening consists of a mix of trees, shrubs and groundcover plantings. Setbacks range from 5 to 10 feet, depending on the zones.

BDS can prepare a more detailed and comprehensive evaluation of any standards that may be problematic on each selected site, once the locations are known. We understand that the time involved with a required Adjustment Review or other land use review is problematic, and we will work with you to develop solutions as you move forward and identify specific sites.

The City of Portland looks forward to the opportunity to provide Development Services for the timely pursuit of your project.