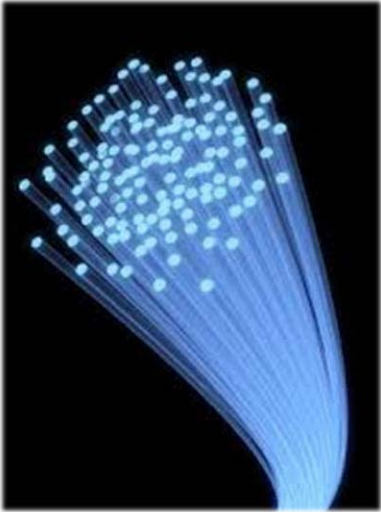


# Bringing Gigabit Fiber to Portland

Mary Beth Heary

Office for Community Technology

# Why is this important to Portland?



- Supports 21<sup>st</sup> century communications demands.
- Enables residential, wireline competition.
- World class connectivity will drive economic competitiveness & innovation.
- Game changer – healthcare, education, transportation, planning, sustainability, public safety and inclusion.

# The City's Broadband Strategic Plan

A competitive state of the art broadband market -- affordable, ubiquitous Fiber system for residents and businesses.

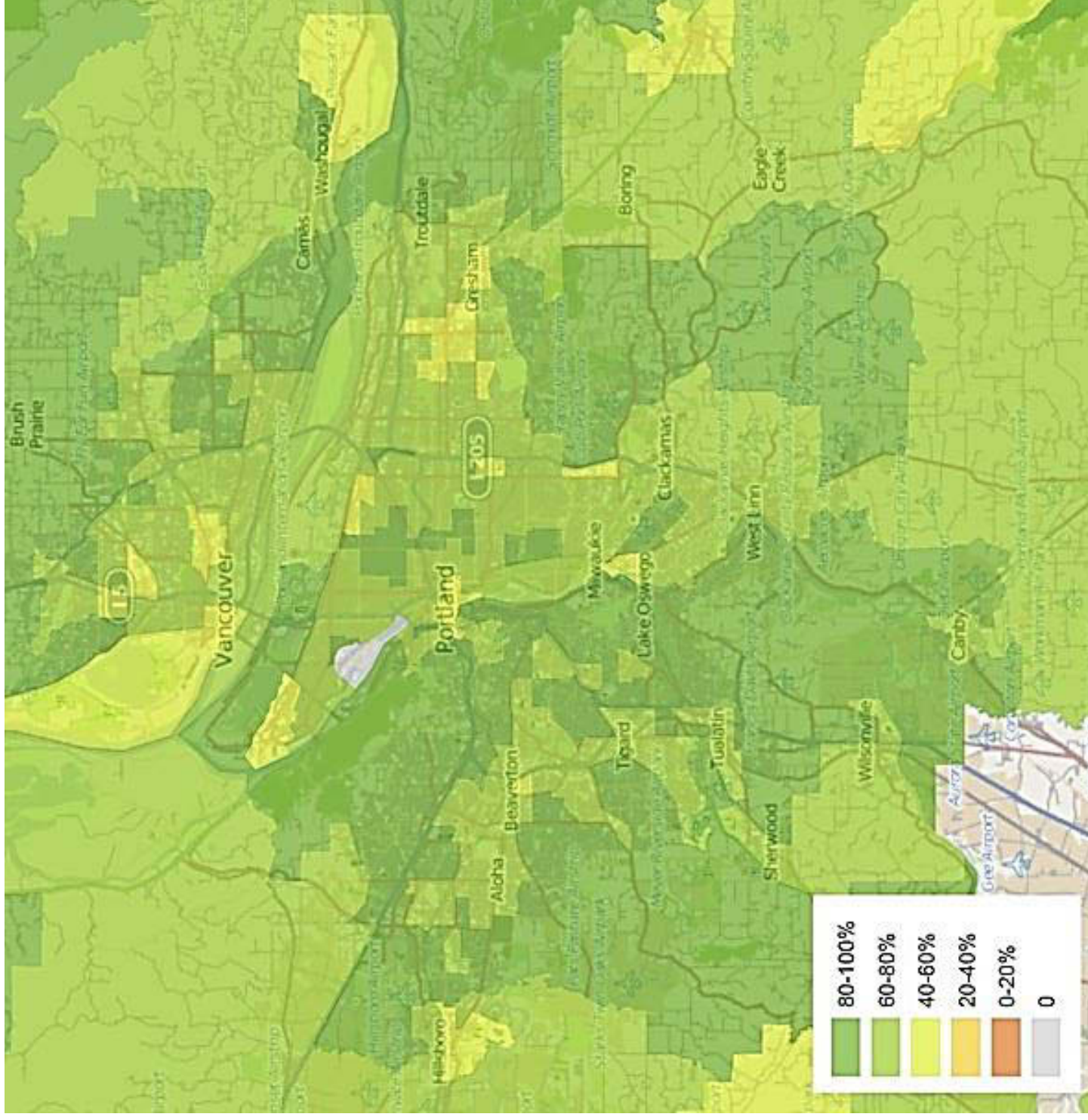
Making Portland “fiber-ready”



# Portland area's broadband adoption by household

based on FCC 2012 data

map source: [theatlanticcities.com](http://theatlanticcities.com)



# Broadband Speeds

| Location/<br>Network          | Download Speed<br>(Mb/s) | Rank (Upload<br>Speed) | Upload Speed<br>(Mb/s) |
|-------------------------------|--------------------------|------------------------|------------------------|
| Portland, Oregon              | 23                       | 200 <sup>th</sup> city | 8                      |
| Google Fiber -<br>Kansas City | 106                      |                        | 96                     |
| Comcast – Portland            | 28                       |                        | NA                     |
| Oregon                        | 21                       | 21 <sup>st</sup> state | 8                      |
| Global Average                | 17                       |                        | NA                     |
| Seoul                         | 53                       | 11 <sup>th</sup> city  | 43.9                   |

Data from Ookla NetIndex ([www.netindex.com](http://www.netindex.com)) on March 11, 2014

# Google Fiber: the Big Picture

**Stage 1:** Planning the network

**Stage 2:** Designing the network

**Stage 3:** Construction

## **FIBER RING**

Goes all the way around the city, so it's easy to bring service to any eligible neighborhood



## **FIBER HUT**

The real “brains” of the fiber network. Thousands of individual glass fibers enter the hut, then each strand passes through the devices that receive and transmit signals between your computer and the Internet.



## **TELECOM CABINETS**

These small cabinets, often on the side of neighborhood roads, divide Fiber into small bundles which travel out of the cabinet towards clusters of homes.



## **FIBER-TO-THE-HOME**

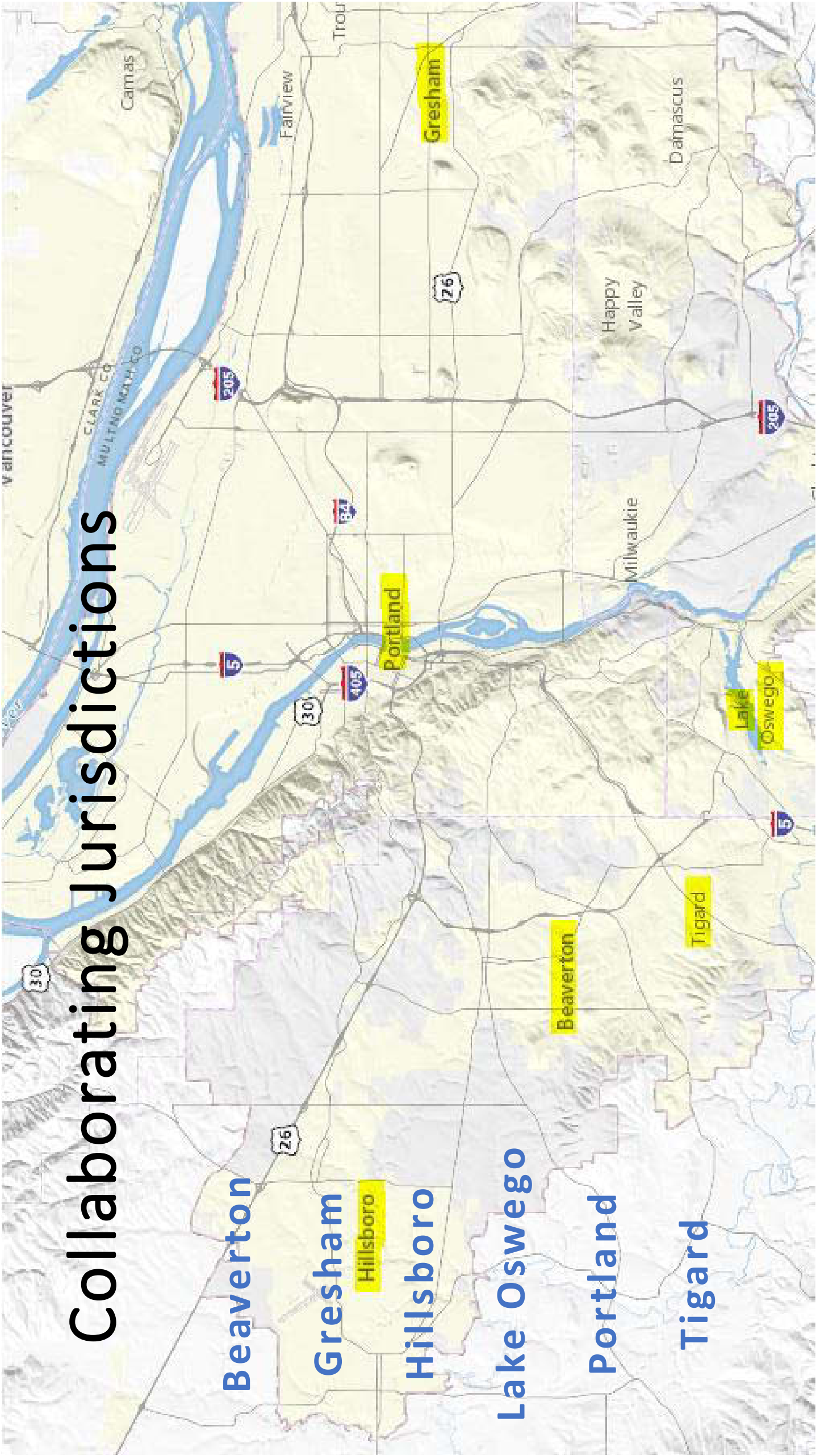
A fiber cable passes through your neighborhood along telephone poles or underground. From that cable, each home gets its own individual fiber strand, which delivers Google Fiber Gigabit Internet and TV service.

# Google's Fiberhoods: build-by-demand

- Google assigns fiberhoods sign-up goals that can be tracked online.
- Once fiberhood reaches goal, Google brings fiber to the home via utility poles and/or underground trenches.
- Fiberhood residents have three options:
  - **TV + Gigabit Internet**
  - **Gigabit Internet Plan:** the home's own fiber connection (up to 1 Gbps)
  - **"Free" Internet:** basic broadband speeds for a one-time installation fee, then no monthly costs for at least 7 years.



# Collaborating Jurisdictions

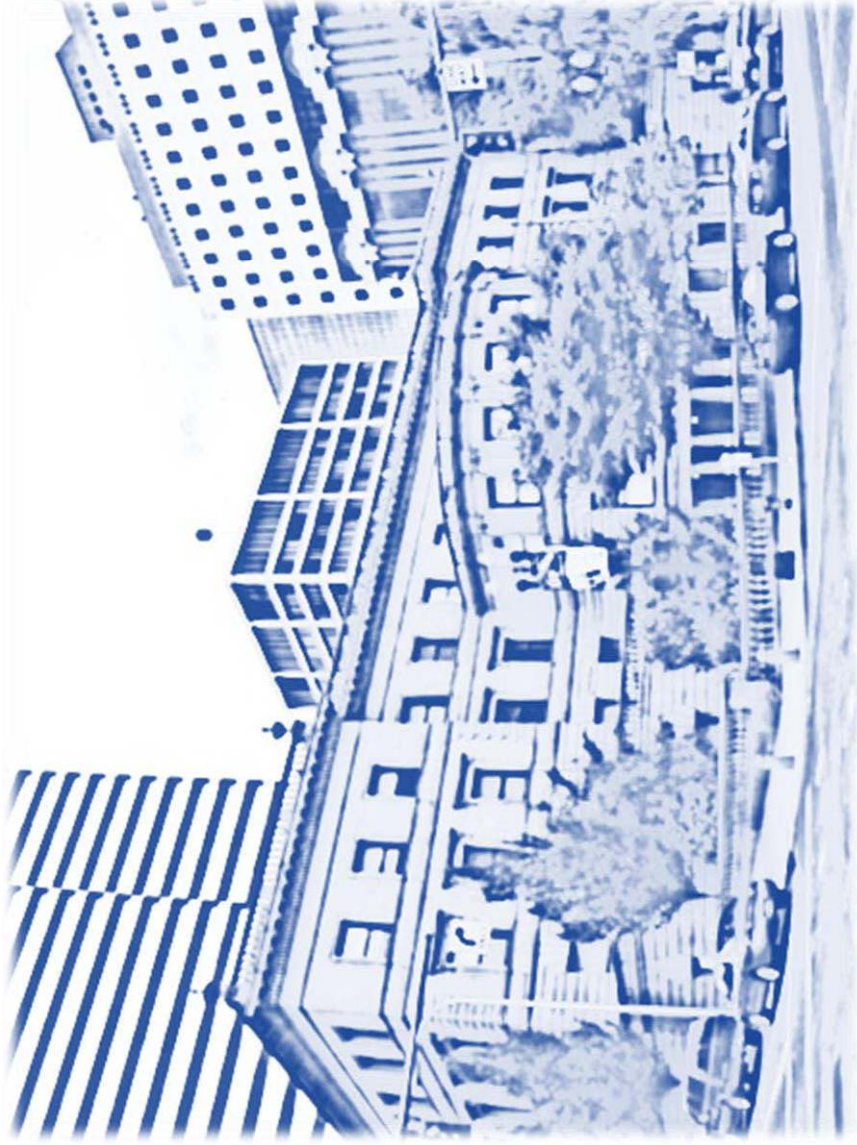


# City of Portland Google Project Team

**Council Execs**

**Bureau Directors**

**Technical Team**

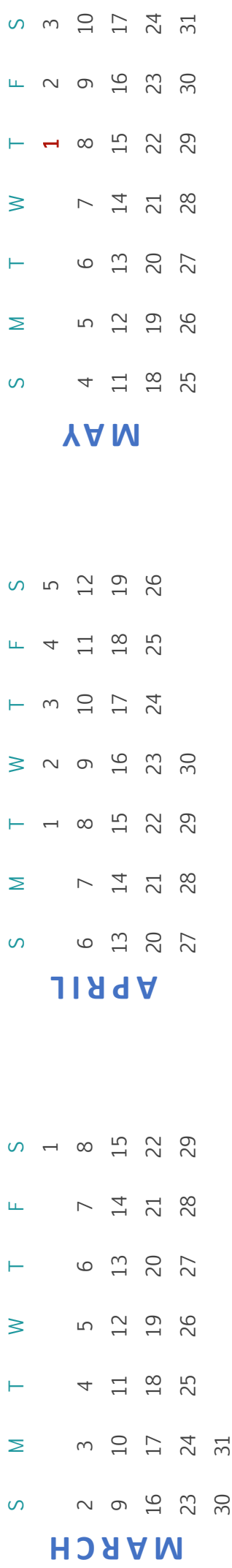


# Fiber Ready Checklist Items:

- Information about existing infrastructure
- Access to existing infrastructure
- Construction speedy and predictable

# When does this need to happen?

- Feb. 26<sup>th</sup> – May 1<sup>st</sup> Cities respond to Google checklist requirements
- May 1<sup>st</sup>, Midnight **Deadline for cities' response**
- May – End of 2014 Google evaluates responses
- Dec. 2014 Google makes final selections



# Bringing Gigabit Fiber to Portland

Q & A

Thank You

