

PBOT

PORTLAND BUREAU OF TRANSPORTATION

1120 SW Fifth Avenue, Suite 800 Portland, OR 97204 503.823.5185
Fax 503.823.7576 TTY 503.823.6868 www.portlandoregon.gov/transportation

Dan Saltzman Commissioner **Leah Treat** Director

February 28, 2018

To: Design Commissioner

Cc: Tim Heron, Kara Fioravanti

From: Anne Hill, Alex Bejarano, Christine Kendrick

RE: Vertical Infrastructure in the ROW

City owned vertical infrastructure (poles) in the right-of-way (ROW) are suddenly in high demand for wireless and data services. Currently, city Code restricts attachments to vertical infrastructure in the ROW in Underground Wiring Districts thereby preventing attachments to poles. Existing policies and guidelines do not address the needs and constraints of today and the future. Small cells or distributed antennae systems (DAS) are short range, low power cellular facilities which allow mobile phone users greater reliability because they provide a density and increased capacity of cell reception in population centers. Recently, cell carriers are racing against each other to be the first to locate on poles—streetlight, signal light, catenary or other—in the ROW as they build out their small cell networks.

The perception of the cell carriers is that local jurisdictions' requirements are restrictions which are prohibiting the deployment of more DAS systems. As a result, industry is appealing to the FCC asking for preemption. This "preemption", they argue is needed because local jurisdictions are creating barriers to delivering communications. It is estimated that there could be more than 500 attachments in the city center for small cells alone. While, PBOT is anticipating beginning with deployment on signal light poles initially, it is apparent that there are not enough of them to meet the demand without



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also considering locating DAS facilities on streetlight poles in the city center as well.

In 2017, in anticipation of the requests for attaching DAS facilities to PBOT assets (signal poles & street light facilities) and to better understand the opportunities and barriers re: small cell attachments, the Portland Bureau of Transportation, together with Bureau of Planning and Sustainability, Office for Community Technology and the Office of the City Attorney drafted a *Strategic Framework for Poles in the ROW*. This framework identifies the problems; applicable codes, policies and regulations; and direction on a proposed and work program to achieve the following outcome: *City owned vertical infrastructure in the ROW will be multi-purpose and collaboratively, proactively managed*. The work program includes:

- Wireless Master Plan. PBOT has contracted for a Wireless Master & Marketing Plan to implement specified design specifications for small cells and pole replacement specifications required by the City. Deliverables will be: a radio frequency survey, completing a vertical infrastructure asset inventory for City GIS maps and a master lease agreement.
- Design Specifications for streetlight and signal light replacements. PBOT is developing concept and specifications for multi-functional city owned pole replacement specifications resulting from small cell attachments, development impacts or infrastructure replacement, and specifications to meet the City's transportation, safety, resiliency and communication needs.
- Coordinated permitting/leasing/authorization process. For attachments to city-owned vertical infrastructure in the ROW PBOT and external customers establish an integrated permitting process.
- City Code update. Update code language beginning with the Underground Wiring District requirements.

Discussion: We have an opportunity to influence the design elements of streetlights and signal lights. We will provide examples for your review and feedback.

Identify and provide advice to PBOT on both potential DAS design elements as well as design considerations for PBOT to review as we modify our existing street light standards to accommodate this use and future wireless and sensor infrastructure.