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LONG RANGE PLANNING
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Telecommunication Facilities Located in the Right-of-Way

Issue

Locating above-ground facilities along roadways is a growing trend in the wireless telecommunications sector. The most recent update of the Community Development Code (CDC) standards for telecommunication facilities occurred in 2017 through A-Engrossed Ordinance No. 826. Initially, the ordinance proposed to allow new telecommunication-only structures as uses permitted through land use review in the County's right-of-way (ROW); that change was not adopted due to concerns about responsibility for future relocations of telecommunication facilities in the ROW. The Board of Commissioners (Board) directed staff to explore concerns associated with allowing new telecommunication facilities located in the ROW and return with further information. Subsequently, the Federal Communications Commission (FCC) adopted new rules that require local jurisdictions to allow new small cell facilities, both in the ROW and on private property. County action is required to address those changes. This issue paper covers both topics. Preparation of this issue paper was authorized in the adopted 2018-19 Long Range Planning Work Program (Tier 1 Task 1.24).

Staff Recommendation

Staff recommends the Board direct the Department of Land Use & Transportation (LUT) to:

1) Move forward with identifying potential changes to the ROW permitting process to address utility relocation and the siting of small cell facilities located in the ROW;
2) Prepare updates to the CDC standards for telecommunication facilities, consistent with FCC requirements, for small cell facilities located in the ROW and on private property (FY 2019-2020 Long Range Planning Work Program Task S1.6) for Board consideration; and
3) Collaborate with other jurisdictions within the County on policy and regulatory changes to accommodate telecommunication facilities located in the ROW.

Staff also recommends the Board consider providing direction to the County Administrative Office (CAO) to:

4) Evaluate the desirability of advocating for changes at the state level, as outlined in this paper, to promote more local control of the County ROW.

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Issue Paper Organization

This issue paper is organized as follows:

I. Background

The transmission of voice, digital image and data files has become a regular component of daily life, commerce, emergency communications, and entertainment. As a result, communities have become reliant on telecommunication infrastructure to relay this information. The telecommunication industry is constantly seeking to improve service to meet current and projected demand for increased transmission capacity.

One significant industry change is the development of new compact receiving and transmitting wireless facilities with greater transmission capacity to support 5G networks, recently defined by the FCC as small cell facilities. Since small cell facilities use antenna with short transmission ranges they need to be in close proximity to each other without obstructions between antennas. Existing roadways, the traditional location for utilities, are generally clear of obstructions; therefore, roadways are a desirable location for service providers to establish small cell networks in order to meet increased consumer demand for telecommunication services.

The County's current land use regulations allow installation of wireless components on existing utility poles, referred to as "co-location." Co-located telecommunication facilities on poles owned by electric and telecommunication service providers occur with the pole owner's permission (typically subject to a leasing agreement). The County currently does not allow co-location on County-owned assets such as streetlights and traffic signal fixtures due to maintenance, work flow, safety, and public interest concerns. This prohibition is currently codified in the CDC.

The cellular industry has indicated that since street lights and traffic signals cannot be used for co-location, new telecommunication-only poles located in the ROW will be needed in order to provide desired levels of service. These are likely to be small cell facilities. Provisions to permit the installation of new stand-alone telecommunication facilities through land use review were considered as part of Ordinance No. 826A in 2017. However, those provisions were removed by the Board due to Planning Commission (PC) concerns and the Board directed staff to return with additional information.

PC concerns raised in the hearing on Ordinance No. 826A related to future relocation of facilities allowed in the ROW. Often when developers make street improvements, existing utilities must be relocated. Adding more telecommunication facilities to the ROW, which may eventually need to be moved, can increase the time and cost of street improvements and development projects. The PC requested additional information about the cost and timing of relocating telecommunication facilities; this information is included in the Analysis section.

A. Telecommunication technology and trends

Telecommunication networks are interconnected systems of components that send and receive data. Telecommunication infrastructure consists of the physical structures and facilities needed to operate a telecommunication network. A telecommunication facility includes all of the equipment that supports communication functions including antennas, equipment cabinets or shelters, and support structure or tower.

As defined in the CDC, a telecommunication tower includes any structure used to elevate any FCC-authorized antenna for communication purposes regardless of transmission method and includes cellular, microwave, television broadcast and internet transmissions. In wireless telecommunication networks nonvisible frequencies within the electromagnetic spectrum (e.g., radio, microwave) are used to receive and transmit messages. Although considered "wireless," cellular facilities also include wired components (cables and conduits for electrical and fiber connections) for data management purposes and power supply. Traditional telecommunication facility sites include landscaping and fencing.

The transmitting range of an antenna is called a "cell," hence the use of the term "cellular" for wireless networks. The range or size of the cell is partially dependent on the specific portion of the spectrum used for transmission. The term "small cell" is used to refer to facilities that use antennas with a small range of coverage, typically 200 - 1,000 feet. Compared to traditional cell towers, small cell facilities tend to be smaller in scale with more compact antenna(s) at lower heights. Since the small cell antennas transmit more data at one time, they are strategically placed to address localized high demand within existing cellular networks. Due to the smaller range of coverage, small cell antennas must be located close together.

Data creation, transmission and consumption are increasing at an exponential rate and new kinds of data-heavy applications are part of the projected increase in data demand. Individuals and businesses, as well as special districts and local governments, all contribute to the increased data demand. Telecommunication service providers have responded to the increased demand by creating new types of technology. A significant change to the kind of technology used in the telecommunications field is referred to as a "generation." Transmission capacity, measured in data transfer rates or data speed, typically increases with each generation.

Telecommunication service providers are currently implementing fourth generation (4G) cellular technology through the creation of small cell networks. An advanced telecommunication standard, referred to as 5G, is expected to be adopted by the United Nations' International Telecommunication Union in 2020. In theory, a fully built out 5G network would allow users to download a full-length high-definition movie to a phone in seconds. In order to deploy 5G

technology, cellular telecommunication providers plan to develop and expand their established networks through the installation of numerous small cell facilities on existing and new structures located on private property and along public roads.

Future Implications of Technological Change

This paper focuses on *current* issues related to telecommunication facilities located in the ROW and identifying options to address those concerns. However, staff notes this telecommunication infrastructure will impact access to electronic information throughout the County, which will have *future* implications. Since the telecommunication industry consists of overlapping competing providers, how the County regulates the ROW may impact which services are available to the community.

In an economy that increasingly relies on access to information, the availability of telecommunication infrastructure has implications for how organizations, households and businesses operate. Communities with greater digital access may be considered more desirable, and there are indications that internet access is now a consideration for homebuyers. Public service providers, such as water and fire protection districts, also rely on telecommunication infrastructure to provide their services and respond in emergencies.

Data demands are expected to increase for businesses and lack of sufficient capacity may impact job creation and business development. Information technology and communication infrastructure will play a role in the success of communities in the future. Additional consideration of policies associated with the broader issues of community communication needs and equitable connectivity by the County may be warranted.

B. Regulating telecommunication facilities in the ROW

Federal regulations govern most telecommunication technologies, including wireline and wireless personal telecommunication, cable and broadcast services. The state has authority over both wired and wireless telecommunication services as well, although when conflicts arise, federal law preempts state law. States have siting and other regulatory authority over public roadways and utilities. Additionally, Oregon has passed enabling legislation to extend authority over public roads and facility siting to local jurisdictions, such as counties and cities. The overlap of federal, state and local authority related to locating telecommunication facilities in County ROW is shown in Figure 1, on the following page.

Federal Statutes

Telecommunication facilities are regulated at the federal level by the Telecommunications Act adopted in 1934, as modified by the Telecommunications Act of 1996 (collectively referred to as the Telecommunications Act) and the Spectrum Act (2012). The 1934 Act consolidated existing radio, television, and telephone regulations and created the Federal Communications Commission (FCC) to oversee communications. The 1996 Act deregulated the market to increase competition and Section 423 established the “effectively prohibit” legal test, which prohibits states or local jurisdictions from adopting requirements that prohibit in intent *or in effect* the siting of telecommunication facilities. The Spectrum Act reformed radio-magnetic

spectrum distribution and deregulated wireless co-location, thereby eliminating local control over certain modifications of previously approved telecommunication facilities.

Figure 1: Jurisdictional Authority

Federal	State	Local
Interstate and international wireline telecommunication and cable services	Intrastate wireline tele-communications and cable services	Land divisions reviewed for utility easements
Broadcasting, wireless and information services	Broadcasting, wireless and information service and siting	Review facility siting on private property
Utility pole attachments for telecommunications	Utility operations and siting; utility pole attachments	Land use review of utilities on farmland
Wireless and small cell modification in the ROW	Public highways, including establishment of roads and rights-of-way	Management, operation and franchising of public roads and ROW*****

Note: Currently, franchising authority is only granted to cities by state law and may be preempted by federal provisions, as is the case for cable franchising

State and Local Framework

Oregon Revised Statutes (ORS) address the operation and siting of a wide variety of public utilities. A telecommunications utility or competitive telecommunications provider, as defined in ORS Section 759.005, is subject to regulation by the Oregon Public Utility Commission (PUC). However ORS Section 759.036 does not expressly confer *exclusive* authority on the PUC, therefore local jurisdictions may regulate telecommunication providers operating within their boundaries, as provided by law.

Local jurisdictions guide the siting of telecommunication facilities located in the ROW, to the extent allowed by state and federal law. The use of ROW by utilities is authorized by ORS Chapter 758, which provides broad authority to utilities to locate their fixtures free of charge along public roads (in the ROW) outside of cities. However, the County retains authority over the *location* of utility lines, fixtures or facilities within the ROW. The County may order utility locations to be changed when the County deems it "expedient," which may include safety and other considerations. When relocation of utilities is needed in order to complete a County roadway project, the utility providers are responsible for the relocation process and costs in accordance with ORS Section 758.010(2) and ORS Section758.025.

While *cities* have additional authority to require fair and reasonable compensation for the costs of managing that ROW under ORS Section 221.420, *counties* currently do not. ORS Section 374.309 authorizes the County to adopt reasonable rules and regulations to regulate the use of the ROW and issue permits for the encroachment and use of the ROW. Therefore, the use of the County ROW is reviewed through the ROW permitting process. The administrative authority to regulate uses within the County ROW is controlled by Board Resolution and Order (R&O) No. 70-250, as modified by R&O Nos. 77-76 and 78-29. R&O No. 77-76 specifically acknowledges

road construction and utilities will be allowed by written permit in the ROW when constructed to County road standards.

Although the County cannot charge utilities cost-recovery fees for staff time, staff does review utility use of the ROW through the permitting process to ensure consistency with the rules and regulations listed above. ROW permits for utility and other uses are issued by the Operations and Maintenance division within LUT. Both co-located telecommunication facilities and proposed telecommunication-only facilities would require ROW permit review.

County land use standards generally exclude most utilities located in the ROW from the requirement to obtain a development permit. Co-location to add cellular antennas to an existing utility pole in the ROW are excluded from development or building permits, as long as they meet specific criteria. While the CDC addresses *co-locations*, it does not directly address *new* telecommunication-only structures in the ROW. Meeting current development code standards for telecommunication-only structures would be extremely challenging.

C. Recent FCC Ruling and Order (FCC 18-133)

State or county regulations over the placement of wireless service facilities can be preempted when they are not consistent with federal standards. In September 2018, the FCC released a declaratory ruling (ruling) that interprets the Telecommunications Act, and a report and order (order) that establishes new rules, together known as *FCC 18-133 Declaratory Ruling and Third Report and Order (FCC 18-133).*The ruling and order clarifies and adopts new time frames to complete regulatory and permitting reviews of multiple types of cellular telecommunication facilities and establishes new regulations for small cell facilities.

More specifically, *FCC 18-133*:

- Codifies approval time frames and previously defined telecommunication terms;
- Adds new small cell facility standards that define facilities based on size;
- Requires small cell facilities be allowed in the ROW and on private property;
- Limits the application of aesthetic and other commonly used criteria to small cell facilities; and
- Limits fees associated with siting small cell facilities located in the ROW.

The FCC determined that applying local regulations that require undergrounding of utilities to small cell facilities would "effectively prohibit" telecommunication service. However, it did not specifically rule on other standards. Instead the FCC provided a three part assessment to evaluate whether aesthetic and other standards are appropriate for small cell facilities. Such regulatory standards must be: 1) reasonable, 2) no more burdensome than those applied to other types of infrastructure deployments, and 3) published in advance.

Under *FCC 18-133*, the County will be required to allow any small cell facility that meets the FCC established definition for small cell facilities, both on private property and in the ROW. The County does not currently define small cell facilities in the CDC, and therefore lacks standards specific to small cell facilities. Existing standards for co-location (antenna installation

on existing structures) in the CDC appear consistent with the new FCC definition of small cell co-locations; however the special use standards in CDC Section 430-109 (Telecommunication Facilities) for new facilities are not. Additionally, while the construction of new small cell facilities located in the ROW may be allowed when consistent with existing standards in CDC Section 430-109, in practice they are "effectively prohibited" due to challenges meeting those standards, particularly setbacks from property lines.

Multiple appeals have been filed challenging the FCC's action; pending litigation will address constitutional issues related to due process, uncompensated takings and "powers reserved for the states," along with municipal property rights. Staff believes it likely much of the ruling related to small cell facilities will stand, while issues related to fee assessment and property rights appear more uncertain. A request for a stay (delay of implementation) was denied by the appellate court in December 2019 and the order became effective Jan. 14, 2019.

In summary, the County is required to allow small cell facilities regardless of location, presuming that portion of the FCC order stands. Current County standards do not reflect this fact.

D. Review of approaches by local jurisdictions

Prior to *FCC 18-133*, only a handful of cities in the Portland Metro region specifically addressed telecommunication facilities located in the ROW. The land use standards for Washington County cities were generally silent on standards related to locating telecommunication facilities in the ROW. The exception, Beaverton, limited telecommunication-only facilities in the ROW to high traffic volume streets such as collectors and arterials. Both Clackamas and Multnomah county reported that co-location of telecommunication facilities in the ROW was allowed and reviewed through the ROW permit process and not the land use process, similar to Washington County's current process.

Approaches to regulating telecommunication facilities in the ROW are shifting as jurisdictions respond to *FCC 18-133*. Multnomah and Clackamas counties are starting to explore how to make changes. Other counties west of the Cascades with urban unincorporated areas, such as Marion, Lane, and Benton, have also not yet made changes, possibly because the high demand areas are predominately located within city limits.

Demand by service providers to establish new telecommunication facilities located in the ROW appears to be high throughout urban Washington County. Cities within Washington County are in the process of adoption (Tigard, Hillsboro) or have adopted (Tualatin, Wilsonville) new rules for small cell facilities in the ROW. These regulations tend to be design and construction standards added to existing regulations such as franchise rules, utility standards or road standards. Some cities already have negotiated agreements with service providers (Cornelius, Banks) and haven't determined whether additional rules are required. Anecdotally, Washington County appears to be experiencing a higher demand for telecommunication facilities in the ROW than other counties, likely due to the large urban unincorporated area.

II. Analysis

This section begins with a discussion of a variety of current issues related to telecommunication facilities in the ROW, followed by recommendations to address issues identified in the background and analysis section. Note that a single recommendation may address one or more issues.

A. Issues

Issue 1: Impacts of time and cost to relocate telecommunication facilities on all ROW users

One of the primary purposes of the ROW is to provide for the traveling public, which includes people driving vehicles, riding bicycles and walking. Current County transportation policy, as articulated in the Transportation System Plan (TSP), is to preserve ROW to ensure new and improved roadways can meet future transportation needs. When the existing ROW is constrained or not yet developed to its ultimate width, adding telecommunication facilities in the ROW will impact the construction of future roadway improvements.

Increases in the number of fixed objects in the ROW that may eventually need to be removed and relocated may slow down future projects. Utility relocation impacts a wide variety of projects, including public sewer and water projects, County-funded road projects and private development. Since delays typically increase costs, additional telecommunication facilities in the ROW will likely result in additional expense for a wide variety of public and private projects.

The process for determining financial responsibility for relocating utilities varies. Relocation and other activities are governed by the PUC for many utilities. Telecommunication providers whose activities are not subject to the PUC regulations typically use franchise or leasing agreements to identify who is responsible and how costs are distributed. Utility providers with facilities located in the ROW pursuant to ORS 758.010 are financially responsible for their own relocations for County road projects.

A recent Oregon Court of Appeals case focused on road projects completed by private developers [*Bull Mountain Meadows LLC v Frontier Telecommunications Northwest, Inc.* (282 OR App 43)]. In this case, the question before the Court was whether developers are acting as "an agent of the County" when completing street improvements required by County land use approval. The court found that requiring street improvements through conditions of a land use approval does *not* establish an agent/principal relationship, which in this case meant that the developers were responsible for the cost of relocating utilities needed to complete the street frontage improvements for their development.

The impact of utility relocation on developer funded frontage improvements will vary based on the number and type of utilities present, as well as site conditions and relocation options. The land use development review process includes some opportunities for applicants to identify and address how utility relocation could impact required frontage improvements. Applicants can work with planning and engineer staff to identify site-specific approaches.

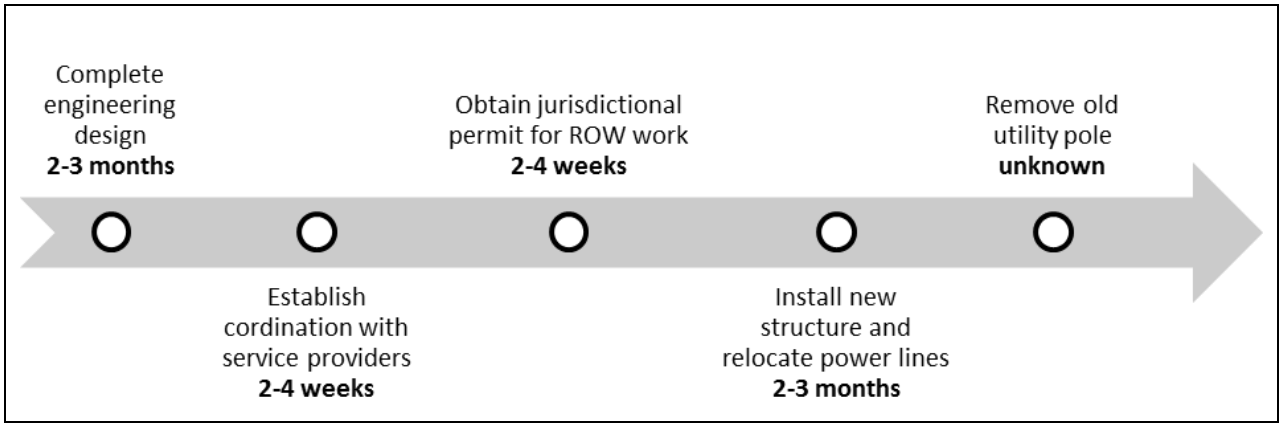
Absent franchise agreements, disputes over financial responsibility for utility relocation within the County ROW for developer-initiated road projects may result in further legal challenges. Legal proceedings can be costly and time-consuming for all parties, regardless of end result. *Possible* mechanisms to identify and clarify telecommunication service relocation responsibilities through the ROW permitting process are discussed under Recommendation 1.

The PC asked for more information on the timing and costs associated with telecommunication relocations in the ROW. Utility service providers consider relocation costs to be confidential customer information and service providers consider all cost information to be proprietary information, so detailed information was limited. Cost estimates to relocate telecommunication facilities provided to staff range from $5,000 to more than $250,000 (when a new pole structure is required). The specific telecommunication facility type and whether it includes design and installation of a new structure are major factors affecting both time and cost to relocate facilities.

Although telecommunication facilities in the County ROW are currently limited to installation on existing utility poles, not all existing utility poles can support additional attachments. Therefore, the relocation of a telecommunication facility within the ROW often requires installation of a new structure. Additionally, in jurisdictions where installation of new telecommunication facilities in the ROW is allowed, a telecommunication service provider may prefer to relocate the facility to a telecommunication-only pole or other fixed object in the ROW. Since relocation projects tend to be site-specific, there is unlikely to be a "standard" cost to complete relocation of such facilities.

PGE currently owns the greatest number of existing utility poles located in the County. According to PGE, the time needed to relocate their utility poles will vary depending on the complexity of the engineering design, general workload of their engineers, and whether the structure is a distribution or transmission pole. Costs and timing to complete the relocation process will vary based on the amount and timing of concrete repair, flagging and agency permitting (see Figure 2, below).

Figure 2: PGE Utility Pole Relocation Process



Other factors that impact relocations include site conditions, type and design of existing equipment, and the interactions between project managers and service providers to coordinate

activities. Associated earthwork to place fiber and electrical cable to service individual sites adds to costs. Separate electrical metering can add to costs as well, although PGE has developed a flat rate for electrical service for small cell facilities. Undergrounding requirements and coordinating with other service providers can also delay the process.

This issue is addressed by Recommendation 1 related to identifying changes to the ROW permitting process (Page 13).

Issue 2: Potential for maintenance issues due to lack of oversight at telecommunication sites

Double or phantom poles occur when utility poles are replaced and some but not all equipment is relocated from the original pole, leaving equipment and an old pole behind. In some cases, equipment is left on powerlines without any support structure. Poorly maintained telecommunication sites can be both unattractive and unsafe.

Currently, co-location and relocations of telecommunication facilities on utility poles occurs most frequently under the oversight of PGE. PGE is a long established electrical utility and appears both proactive and highly responsive to service impacts. Telecommunication-only poles in the ROW would increase the number of pole owners, and no single entity would be responsible for ensuring all parties remove equipment in a safe and timely manner in order to preserve services.

Since removing outdated equipment and infrastructure can be time consuming and costly, such activities may not be prioritized by cellular providers. Lack of oversight and accountability, as well as challenges associated with changes in ownership, may lead to safety issues and long timelines to address outstanding maintenance. Service providers who *choose* to utilize the ROW to establish telecommunication facilities remain responsible for those facilities and may need to perform maintenance or relocate to maintain a safe ROW for all users.

This issue is addressed by Recommendation 1 related to identifying changes to the ROW permitting process (Page 13).

Issue 3: Citizen concerns related to telecommunication facilities located in the ROW

Several citizens raised concerns to the Board in 2018 about impacts to their property from nearby telecommunication facilities located in the ROW. These concerns include decreased property values, visual impacts, health risks and safety concerns. Changes to the ROW permitting process to subject poles used to support telecommunications equipment to a higher level of scrutiny than other utility poles was requested, as was a formal rule to prohibit the use of certain County-owned street lights as telecommunication facilities.

Under the County's current land use policy, new uses (located in the ROW or on private property) are ***not*** required to identify or mitigate impacts on future property values. Standards that minimize visual impacts are applied to telecommunication facilities of all types. Under current federal provisions, local jurisdictions cannot use radio frequency emissions that comply with FCC standards to deny or prohibit a telecommunication facility. However, the FCC has

affirmed local authority to address other health and safety concerns associated with telecommunication facilities through local regulations.

The authority to determine the safety of roads and objects located within the ROW lies with the County Engineer and roadway safety is reviewed through the ROW permitting process. The County Engineer retains the right to intervene and remove objects of concern or require site-specific safety measures to protect the travelling public when documented safety issues occur. However, this authority may be limited by recent FCC action, as discussed below.

The County's current practice is to apply the same set of rules and regulations to all utilities in the ROW. This policy is similar to the FCC's interpretation that regulations applied to small cell facilities can be "no more burdensome" than those applied to other types of infrastructure. Any standards used to review telecommunication facilities in the ROW and accommodate small cell facilities should also apply to other types of above ground utilities located in the ROW.

This issue is addressed by Recommendation 1 related to identifying changes to the ROW permitting process (Page 13), and Recommendation 2 related to preparing updates to the CDC (Page 14).

Issue 4: Changing federal standards

The updates to the CDC related to telecommunication facilities adopted in 2017 via Ordinance No. 826A were consistent with federal standards for telecommunication facilities in effect at the time. The 2012 Spectrum Act specifies that local jurisdictions must approve expansions for purposes of co-location on existing telecommunication facilities. When existing facilities are located in the ROW, expansions may be up to 10 feet in height (or 10 percent of the structure's height, whichever is greater) and 6 feet in width, and may include up to four new equipment cabinets. This change incentivized service providers to install more communications equipment on above-ground structures that may be affected by storm events or other natural disasters rather than invest in technologies that could bring down costs of underground facilities for protected communications.

The September 2018 FCC rule and order further limits local jurisdictions from exercising control over telecommunication facilities by requiring small cell facilities to be allowed within the ROW and on private property, and exempting them from local provisions for undergrounding utilities as already discussed. *FCC 18-133* also contained guidance related to use and rental fees, as well as land use review or permitting fees. User fees (for locating within public ROW), lease fees (for installing on street lights, buildings and other publicly-owned structures), and permit review fees for small cell facilities may be limited by the FCC's presumed maximum fees for small cell facilities. The FCC presumed maximum fees would apply should the County add a land use review process to small cell facilities located in the ROW or assess an attachment fee to install a telecommunication facility on a County-owned asset in the ROW.

As noted previously, *FCC 18-133* has been legally challenged, which creates uncertainty over which provisions will withstand legal challenge. While it will take time to reach a legal resolution, most provisions in *FCC 18-133* became effective Jan. 14, 2019.

Legislation preempting local control of small cell facilities and the associated review process were introduced in the Senate in the previous congressional session. Similar preemptive legislation is expected in 2019. Alternatively, legislation that promotes local control of small cell facilities has already been introduced, adding to the uncertainty at the federal level.

This issue is addressed by Recommendation 1 related to identifying changes to the ROW permitting process (Page 13), and Recommendation 2 related to preparing updates to the CDC (Page 14).

Issue 5: Roadways cross jurisdictional boundaries creating a need for coordination

The County has jurisdiction over most roadways located in unincorporated Washington County, as well as many major arterial and collector roads (or portions of such roads) inside cities. In the latter case, the land use and roadway authority may be different. A PGE-owned pole located within a city on a County road would be subject to County *roadway* authority and city *land use* authority. Alternatively, cities that zone underlying land to the center line of roadways may consider ROW uses subject to their land use authority and require land use approval for telecommunication facilities located in the County ROW. It is not obvious to the general public or service providers when the jurisdictional authority changes.

A growing number of cities within the County are revising standards to allow new telecommunication facilities in the ROW, subject to specific standards. Establishing either more restrictive or less restrictive regulations on County ROWs located within city boundaries may cause confusion and lead to public concerns if differences between jurisdictions are significant. Complicating matters, some cities within the County have already established agreements with one or more service providers to install telecommunication facilities on city-owned property, including assets in the ROW. Ownership of structures used for installing such facilities is not only a revenue source, it also provides greater opportunity to negotiate how telecommunication installations will look and operate. Existing standards in the CDC prohibit installation on County-owned assets located in the ROW due to concerns related to existing and future equipment and maintenance.

Costs to install facilities also vary between cities and between cities and counties. Unlike counties, cities may assess a variety of franchise and licensing fees for utilities to locate in their ROWs. Although, the ability to charge market rents to install telecommunication facilities on city-owned street lights or other assets is limited by FCC 18-133, such restrictions may not withstand legal challenge. As long as costs associated with locating on city facilities or in city ROWs are higher than those associated with locating in the County ROW, service providers are likely to desire installation of telecommunication facilities on County roads near population clusters to save money when possible.

A future challenge will be ensuring that roadways provide telecommunication infrastructure to support autonomous vehicles (AV). A specific radio frequency known as DSRC, or Dedicated Short Range Communication, is reserved for automotive communication use. However, since there are many cars on the road today with internet connectivity, the Oregon Department of

Transportation plans to support both existing internet and DSRC methods for communicating with connected vehicles in pilot programs. It is currently unclear who will provide coordinated communications between public and private service providers. However such services will necessarily cross jurisdictional boundaries.

This issue is addressed by Recommendation 3 related to collaborating with other jurisdictions on policy and regulatory changes for telecommunication facilities located in the ROW (Page 15) and by Recommendation 4 related to County control over County ROWs (Page 16).

B. Recommendations

Following are staff recommendations to address the issues described above. As noted, state and federal rules and regulations limit actions the County can take to address the issues raised by telecommunication facilities located in the ROW.

Recommendation 1: Move forward with identifying potential changes to the ROW permitting process to address utility relocation and the siting of small cell facilities located in the ROW.

This recommendation addresses relocation impacts (Issue 1), maintenance oversight (Issue 2), citizen concerns *to the extent possible* (Issue 3), and changes in federal standards (Issue 4).

LUT's Operations and Maintenance Division issues several different types of ROW permits for use of the ROW, including utility ROW permits. Staff has identified the need to make changes to the existing process to provide increased clarity regarding service provider responsibilities and ensure standards applicable to small cell facilities are identified.

Local jurisdictions typically rely on contracts related to franchising or use agreements to identify service provider responsibilities for the maintenance and relocation of any facilities located in the ROW. Lacking such agreements, staff identified two *possible* alternatives should the County wish to require that service providers take responsibility for the maintenance and relocation of facilities located in the ROW: the application of permit conditions and the use of affidavits (legally binding agreements). While current ROW permit conditions reference the County's statutory authority to require utility relocation, they do not currently address who is responsible for this relocation. Using an affidavit or a ROW permit condition to require utility providers to maintain facilities and pay for relocation when developers improve streets to current standards has not been tested in the courts and there would be some risk with this direction. Should the Board have interest in exploring this as an option, further work would be required to refine the proposal.

Utility ROW permits are routinely reviewed for roadway safety; however, it is not always clear to applicants or the public which standards must be addressed by an applicant as part of a utility permit submittal. Under *FCC 18-133*, standards for small cell facilities must be published in advance. Changes to make submittal requirements clearer and identify any standards applied to small cell facilities in the ROW would address this FCC requirement.

Applying health and safety standards to guide the location of above-ground utility installations in the ROW, including small cell facilities, appears consistent with the FCC's recent interpretation.

Such regulatory standards would need to be applied to similar utilities and be otherwise consistent with *FCC 18-133*. In cases of safety concerns at specific sites, additional tools such as design alternatives or certification by professionals could be considered.

The design of support structures may also be considered a health and safety concern. Attachments on PGE utility poles are assessed for structural integrity by their engineers prior to installation; however, it is unclear how owners of other types of poles address structural engineering. Requiring applicants to demonstrate how structural integrity and other safety issues are addressed in their ROW permit application may be advisable.

Rules applicable to small cell facilities in the ROW could be adopted through resolution, ordinance or other mechanism. An interim policy could be used to address the FCC-related changes while permanent rules are drafted and adopted. If the Board gives staff direction to implement this recommendation, a specific process would be developed or identified to change the ROW permitting process. Such changes would be implemented by Operations and Maintenance staff, with support from Long Range Planning or private consultants, as needed.

Recommendation 2: Prepare updates to CDC standards for telecommunication facilities consistent with FCC requirements for small cell facilities located in the ROW or on private property for Board consideration.

This recommendation primarily addresses changes in federal standards (Issue 4), although it also considers concerns identified by citizens to the extent possible (Issue 3).

FCC 18-133 requires jurisdictions to allow *small cell facilities*, regardless of location. This includes both co-location on an existing structure and installation on a new support structure. The County's existing standards for co-location and new structures don't specifically address *small cell* facilities. Additionally, some of the existing telecommunication facility standards in the CDC don't mesh well with FCC requirements and could be prohibitive in effect, when applied to small cell facilities. Such an effect would be in violation of *FCC 18-133.* For all of these reasons, some changes to the CDC are warranted.

In order to address changed federal standards and community concerns, staff considered CDC modifications that would subject telecommunication facilities in the ROW to land use review, in addition to ROW permit review. This would have entailed adding provisions to special use CDC Section 430-109 (Telecommunication Facilities) to include small cell facilities located in the ROW, and required such facilities to obtain both a development permit and a ROW permit.

Currently, however, there are very few ROW uses that require land use approval. These tend to be large projects affecting many properties at one time and those that are also subject to a higher level of scrutiny to balance urbanization with preservation of farm and forestland. The scale and scope of FCC-defined small cell facilities is not comparable to these kinds of large infrastructure projects, therefore staff believes that a similar review process is not warranted for small cell facilities.

Community concerns regarding decreased property values, visual impacts, health risks and potential safety issues as a result of telecommunication facility installations were raised with the Board. The County is limited in adopting standards to address health and safety concerns as noted under Recommendation 1. Regarding other impacts, similar land uses should be treated similarly and staff does not believe the County can apply greater scrutiny to telecommunication-only facilities compared to other similar land uses. Code changes that require telecommunication facilities to address possible future changes in property values or meet other tests to demonstrate need for a particular location would be inconsistent with case law and previous FCC rulings. Visual impacts can be addressed to a certain extent with development standards, however methods typically used to address visual impacts of telecommunication facilities on private property, such as fencing ground mounted equipment or requiring significant setbacks, could "effectively prohibit" such facilities *in the ROW* which would not be allowed under *FCC 18-133*.

For small cell facilities not located in the ROW, additional code changes are needed in CDC Section 430-109. Plans for small cell facilities shared by service providers with staff and other jurisdictions indicate that some of the *existing* special use standards for telecommunication facilities in CDC Section 430-109 are not applicable to small cell facilities *located on private property*. Additionally, some of these standards may also violate the three-part test in *FCC 18-133* when applied to small cell facilities.

For the reasons discussed above, staff recommends the following changes at this time:

- Revise CDC Section 201-2 (Exclusions from Development Permits) to add small cell facilities that meet the FCC definition and are *located in the ROW* to the list of uses that don't require a development permit as long as certain development standards are met. ROW permits will still be required. This will keep the same review and permitting process for all telecommunication facilities in the ROW, while applying new standards specific to stand-alone small cell facilities.
- Revise CDC Section 430-109 (Telecommunication Facilities) special use standards to ensure design standards for small cell facilities *on private property* currently subject to land use review are consistent with FCC definitions and standards.
- Do not make additional changes to the CDC that would allow larger scale telecommunications facilities in the ROW. This could be reconsidered in coordination with other jurisdictions in the future.

Potential future changes may be needed once legal challenges have been resolved.

Recommendation 3: Collaborate with other jurisdictions within the County on policy and regulatory changes to address telecommunication facilities located in the ROW.

This recommendation addresses the challenges associated with the need for jurisdictional coordination over roadways (Issue 5).

Cities within the County are undertaking a variety of approaches to regulating telecommunication facilities in the ROW. There are existing forums for coordination that the County can use to track whether any consensus develops around how telecommunication facilities in the ROW should be regulated, and whether certain approaches are more effective than others. This information will allow the County to learn from other jurisdictions and facilitate a coordinated approach, if desired and to the extent feasible.

Future multi-jurisdiction transportation planning efforts will increasingly rely on Intelligent Transportation System (ITS) elements that depend on telecommunication infrastructure to operate and deliver solutions. Traffic engineering staff currently maintains signal phasing and timing (SPaT) infrastructure and collects transportation data for the County's Traffic Operations Center. Implementation of a number of existing projects and plans, such as the County's *Intelligent Transportation System (ITS) Plan* and Metro's *Regional Transportation Plan (RTP) Implementing Strategies: Emerging Technology Strategy* (adopted December 2018), will also rely on communication infrastructure and coordinated jurisdictional responses.

Long Range Planning staff is tracking telecommunication policy and regulatory changes in the region and has attended telecommunication coordination meetings hosted by cities within the County over the past year. Staff can continue this coordinating work while staffing the Washington County Coordinating Committee (WCCC) and the WCCC Transportation Advisory Committee (TAC), and attending other coordinating activities with local cities.

Recommendation 4: Evaluate the desirability of advocating for changes at the state level, as outlined in this paper, to promote more local control of the County ROW.

This recommendation addresses statutory and federal preemption of County ROW authority and control (referenced in the Background section and in Issue 5).

It is important to note that telecommunication providers have the legal right to locate in the County ROW. Cost savings associated with siting in County ROW compared to city ROW is likely a large part of the reason why service providers desire to locate telecommunication facilities in County ROW. Siting a large number of facilities that have direct line-of-sight in close proximity to each other is also easier to achieve along roadways than through negotiated lease agreements with multiple private property owners.

However, the streetscapes of the County's communities may be significantly altered by the installation of multiple telecommunication facilities in the ROW. County ROWs have great value to the public. They provide for the movement of people and goods and space for locating utility services used throughout the community. The County has a public responsibility to manage and maintain the ROW on behalf of taxpayers and community residents.

Current state laws are outdated, treat cities and counties differently, and don't reflect the impact reviewing utility use of the ROW has on County budgets. Due to the FCC's recent ruling and order, there are potential cost increases associated with increasing staff levels to review more facilities in the ROW, while also meeting mandated timeframes to avoid expensive legal challenges. While federal actions have preempted some local control of telecommunication

facilities within the ROW, legislative changes that provide greater County control over the ROW could mitigate some of the impacts of telecommunication facilities to the community's streetscape and the County's budget.

Advocating for the following could increase control over County ROWs and/or reduce financial impacts to accommodate small cell facilities in the ROW:

- Franchise authority similar to cities to allow for increased certainty over facility location, relocation, operation and appearance;
- Ability to charge use fees to utilize County ROW;
- Assessment of use fees consistent with market rate values for rents; and
- Ability to charge cost-recovery permit review fees.

If the financial limits in *FCC 18-133* stand, seeking franchising authority may not be as beneficial as it might have been. However, the ability to execute franchise contracts would increase County control of siting and relocation responsibilities in the ROW consistent with *FCC 18-133*. Additionally, the ability to collect market rents or at the very least, the ability to charge cost-recovery fees, remains desirable to offset the costs associated with reviewing and permitting telecommunication facilities located in the ROW.

The CAO handles the County's legislative advocacy efforts and Board direction would be required to adopt a new priority.

III. Summary

In order to update rules and regulations to accommodate small cell facilities and incorporate telecommunication policy into existing coordinating activities, staff recommends the Board direct the Department of Land Use & Transportation (LUT) to:

1) Move forward with identifying potential changes to the ROW permitting process to address utility relocation and the siting of small cell facilities located in the ROW;
2) Prepare updates to the CDC standards for telecommunication facilities consistent with FCC requirements for small cell facilities located in the ROW and on private property (FY 2019-2020 Long Range Planning Work Program Task S1.6) for Board consideration; and
3) Collaborate with other jurisdictions within the County on policy and regulatory changes to accommodate telecommunication facilities located in the ROW.

To address statutory restrictions limiting County ROW authority, staff also recommends the Board consider providing direction to the County Administrative Office (CAO) to:

4) Evaluate the desirability of advocating for changes at the state level, as outlined in this paper, to promote more local control of the County ROW.