



PUBLIC WORKS DEPARTMENT

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CITY COUNCIL STAFF REPORT

Meeting: December 6, 2022

Subject

Consider directing staff to prepare a City Ordinance to govern the permitting of small cellular facilities within the public right of way.

Recommended Action

Consider directing staff to prepare a City Ordinance for Council approval to govern permitting of small cellular facilities within the public right of way and provide input on the list of recommended modifications to the regulations listed in the staff report.

Executive Summary

Local authority to regulate small wireless facilities is limited under state and federal law. In particular, the Federal Communications Commission (FCC) has established certain limits and regulations regarding the permitting of small wireless facilities. These limits are designed to facilitate rapid deployment of small wireless (“5G”) cellular networks. These limits include generally:

- Time limits on the processing of small cell permit applications (Shot Clocks).
- Federal preemption of state or local regulations relating to the health effects of small wireless facilities.
- Federal preemption of any local regulation that “materially inhibits” the construction of small wireless facilities.

Local jurisdictions retain the ability to regulate small wireless facilities based on public safety and reasonable aesthetic concerns. To reduce the aesthetic impacts of small wireless facilities, a local government can set design standards such as requiring screening or shrouding of facilities and having equipment coloring match the pole. These design standards must be technically feasible and directed at addressing aesthetic harms and may not have the effect of prohibiting installations or preventing a carrier from improving the quality of their service.

Cupertino has also worked to enhance transparency of the permitting process for its residents through various avenues, including mailed notices, extensive online information, e-notification of permitting activities and other means, including the longest notification period of any jurisdiction in Santa Clara County.

Staff has prepared a draft ordinance that strengthens the City's permitting process for small wireless facilities while complying with federal regulations and state law. Staff is requesting input on the modified regulations listed here and discussed in further detail in the staff report:

- 1) Establish standards for more- and less-preferred locations for small wireless facilities.
- 2) Include procedures for RF exposure verification and authorize the Public Works Director to obtain a peer review of RF exposure analyses.
- 3) Amend the timing of certain pre-application notification activities to ensure consistency with shot clock requirements.
- 4) Grant applicants and residents or owners within 300 feet of a proposed wireless facility the right to appeal the Public Works Director's decision regarding a permit application to the City Manager.
- 5) Authorize the Public Work's Director to revoke or modify permits based on changes in the state or federal law that expand the City's authority.
- 6) Establish a 750-foot separation radius between small wireless facilities from the same carrier.

Background

Small cell wireless communication facilities, sometimes called "5G", are a type of wireless infrastructure. Traditionally, wireless facilities have been large antennas placed high above the ground that service a wide area (referred to as "macrocells"). Small wireless facilities provide spot coverage to a relatively small area, and therefore a denser network of small wireless facilities is required to provide wireless service. Small wireless facilities are typically installed on existing infrastructure such as streetlights.

However, because small wireless facilities are often installed in close proximity to homes and businesses, local jurisdictions have developed targeted regulations to aid in addressing the impacts of the facilities.

The City has held six City Council study sessions on the subject of small wireless facilities. These study sessions covered many matters including legal issues, aesthetic concerns, permitting guidelines, and siting preferences. Much of what was discussed at these meetings, including the federal and state laws governing the installation of these facilities, remains relevant. Links to videos of these meetings, as well as additional information on small cell facilities, can be found on the City's webpage here:

<https://www.cupertino.org/our-city/departments/public-works/permitting-development-services/small-cell-information>

At the City Council meeting on April 20, 2021, Council was presented with updated permitting guidelines for small cell wireless facilities in the public right of way. Council requested at this meeting that staff consider creating an ordinance to further support the

permitting guidelines and to establish objective criteria for the siting of the facilities. Staff has prepared a draft ordinance (Attachment A) and draft regulations (Attachment B) for review. Staff intends to bring an ordinance to Council for a first reading and to request Council approval of the wireless regulations in 2023, based on input from this study session. Staff intends to present the draft ordinance and regulations to the Technology, Information & Communication Commission (TICC) before returning to Council.

Background on Relevant State and Federal Law and Regulations

Under state and federal law, wireless communications providers are given the right to install wireless facilities, including small wireless facilities, within the public right of way, subject to certain preserved local powers. The City of Cupertino currently requires encroachment permits for installation of small wireless facilities in the public right of way, which in turn are subject to the City's *Guidelines for Encroachment Permit Submittals for Wireless Communications Facilities on City Owned Poles* (Attachment C) ("Guidelines"). Small wireless facilities are also subject to conditions contained within Master License Agreements between wireless providers and the City.

Federal and state law restrict the City's authority to regulate small wireless services. However, the City retains the authority to address aesthetic and public safety concerns arising from the installation of small wireless facilities, subject to the conditions discussed below.

- Regulation of Wireless Facilities May Be Based on Aesthetic and Public Safety Concerns

State and federal law and regulations, including the Federal Telecommunications Act (FTC) of 1996 and provisions of the California Government Code and Public Utilities Code, govern how local jurisdictions may regulate wireless facilities, including small wireless facilities installed in the public right of way. Local governments, retain the authority to establish aesthetic conditions for land use, including the authority to regulate small wireless facilities' design and placement, as long as placement regulations to not inhibit a carrier's ability to enhance their services. They also have authority to manage the right of way to ensure public safety and to coordinate uses.

These powers enable local governments to enact regulations that would prevent small cell facilities from interfering with use of the right of way and to protect public safety by ensuring the poles on which small cells are mounted will securely bear their weight. To reduce the aesthetic impacts of small cell facilities, a local government can set design standards such as requiring screening of facilities and having equipment coloring match the pole. Under FCC regulations, local aesthetic requirements are not preempted if they are (1) reasonable, (2) no more burdensome than those applied to other types of infrastructure deployments, and (3) published in advance.

- Regulation of Wireless Facilities Must Not Be Based on Health Concerns
Under federal law, a local government may not set standards for wireless facilities based on concern over Radio Frequency (RF) emissions from those facilities, beyond requiring that those facilities' emissions meet the FCC's established emission limits. RF emissions from small wireless facilities in Cupertino typically fall around 100 times below the FCC's limits. So long as a small wireless facility complies with FCC standards, the City may not establish location requirements, deny a permit application, or impose permit conditions for the facility based on concerns over its perceived health effects.
- Regulation Must Not Have the Effect of Prohibiting Wireless Service
Federal law also requires that local government regulation of wireless service not prohibit or have the effect of prohibiting the provision of personal wireless services. The FCC's September 2018 Order specified that "an effective prohibition occurs" when a regulation "materially inhibits a provider's ability to engage in any of a variety of activities related to its provision of a covered service." It further specified that a local jurisdiction's regulation of wireless services can amount to an effective prohibition where it prevents a carrier from improving the quality of their service or from adding new technologies and services, not just where it prevents a carrier from filling gaps in service.

This means that a jurisdiction cannot deny a service provider's wireless facility application on the basis that the jurisdiction finds the provider's existing coverage or range of services adequate. Local governments also may not enact a blanket prohibition on installation of small wireless facilities in a particular area of the City or in specific neighborhoods. However, a jurisdiction could have grounds to deny a specific placement of a small cellular facility if there is a reasonable alternative location available

- "Shot Clocks" for Review of Small Cell Facility Applications
Federal law also requires local governments to act on applications for new wireless facilities within "a reasonable period of time." The FCC's September 2018 Order sets time limits, or "shot clocks," defining presumptively reasonable periods of time for review of small cell facility applications. Under the FCC's Order, a jurisdiction has 60 days to review an application for collocation of a small wireless facility on an existing structure and 90 days for review of an application to permit a new small wireless facility.

Discussion

Since the City Council study session in April 2021, the City has continued to monitor the lawsuit between the City of Los Altos and both Verizon Wireless and AT&T Wireless. Verizon and AT&T each sued the City of Los Altos after the Los Altos City Council denied applications for 12 AT&T small cell applications and one Verizon application in December 2019. The lawsuits contended that Los Altos' small cell regulations amounted

to an unlawful ban on wireless services in most of the city. Those regulations prohibited small cell installations within 500' of school buildings and in any residential district, unless an applicant could establish that denial of a small cell site in one of those areas deprives a carrier of its rights under federal and state law. Although both carriers presented the City with information explaining why the sites in question were necessary to meet their service needs, the City Council found that the information was insufficient to establish that a denial would violate the law.

The City of Los Altos revised its wireless ordinance in June 2022. These revisions no longer ban small cell facilities near schools or in residential areas but establish a tier of preferred and less preferred locations, similar to those used by the City of Cupertino. After the revisions to the Los Altos ordinance were made, the judge dismissed the lawsuit reasoning that the revised Ordinance rendered the carriers' complaints moot. The carriers are appealing that decision. The City of Los Altos' updated wireless ordinance can be found here:

https://www.losaltosca.gov/sites/default/files/fileattachments/ordinance/81891/ordinance_no.2022-486_wireless.pdf

Prior study sessions have raised numerous issues relating the regulation of small wireless issues. Those issues are discussed below.

Outreach

The City has worked to ensure that outreach for small wireless facility permitting is extensive yet compliant with federally mandated shot clock timelines. The City's webpage provides opportunities for residents to be notified of small wireless facility permitting activity and contains information on wide array of topics relevant to small wireless facilities.

To ensure residents are aware of permitting activities, the City has created the following avenues of notification:

- Cupertino.org - The City's Small Cell webpage provides residents with an opportunity to sign up for email notifications of any permitting activities: <https://www.cupertino.org/our-city/departments/public-works/permitting-development-services/small-cell-information>
- Mailed Notifications - Any properties located within 500-feet of a proposed small cell facility receive a letter in the mail from the wireless carrier that provides information on the proposed installation, including a photo simulation of the facility, and includes contact information where they can provide input and ask questions. A new requirement that would be enacted with the proposed regulations would be to have prominently displayed on the front of the mailed envelope "NEW WIRELESS FACILITY INFORMATION" in order to enhance transparency and to reduce misunderstandings. The City provides a three-week (21-day) noticing period for residents to provide input before a permit is processed any further. However, the City accepts and reviews the

correspondence from residents regarding small wireless facilities, even after the comment period has ended. Federally mandated shot clocks for permit reviews have limited the time the City has to notice, review, and permit small wireless facilities. However, Cupertino has initiated a permitting process that meets the time constraints, yet also provides for the longest noticing period of any City in Silicon Valley.

- Responses to Inquiries: Every inquiry made in response to the mailed notifications is logged and includes (when provided) the inquirer's name, address, contact information, and a brief description of their concerns or questions. The City tracks this information and works to address issues and concerns where possible and permissible by federal law.
- Door Hangers – Seven days prior to the start of permitted construction activities, wireless providers are required to place "door hanger" notices on all properties within 100 feet of the small cell facility.

The City also provides informational material on its Small Cell webpage (link provided above), which includes an FAQ, relevant links regarding federal regulations, small wireless facility permitting guidelines, design standards, links to past meetings, a survey that collects feedback from residents, and a GIS map that provides information on proposed, permitted, and active cell sites, including links to post-construction EMF reports for active cell sites.

Aesthetics

The City of Cupertino, through coordination with various wireless providers, has developed aesthetic standards for small cell facilities on street light poles that accommodate equipment from all wireless providers while ensuring a generally homogenous appearance for the facilities. The intent of the aesthetic standards is to ensure the City had an objective design standard for each carrier to follow and to ensure consistency of design among different facilities. The City Council recommended developing a homogenous design in 2016 and recognized the aesthetic design standards for small wireless facilities (Attachment D) in 2017, when it approved the AT&T master agreement.

Distances between small wireless facilities

The current Guidelines require that small cell facilities owned by the same carrier be spaced at least 500' apart, unless a carrier can provide documentation showing that a closer site is the only feasible location that meets their service needs.

The FCC's September 2018 Order states that "a minimum spacing requirement [for small cells] that has the effect of materially inhibiting wireless service would be considered an effective prohibition of service" (FCC 18-133 paragraph 87). The current Guidelines set a minimum spacing that reflects small cells' limited signal strength and stipulates that spacing distances are between facilities from the same carrier in order to ensure no

single carrier can install facilities in a manner that prohibits other carriers from providing services within a certain area (in effect monopolizing service in the vicinity).

Noticing of planned installations

Due to the FCC's September 2018 Order which set time limits for completion of the review of small cell facility applications, the City typically has 90 days to review an application for a small cell facility. As part of the Guidelines' application procedure, the City has incorporated a public notification process whereby carriers are required to notify, via mailed letter, all property owners located within 500' of the proposed location. If an ordinance is adopted, staff recommends reducing this distance to 300' to be consistent with standards used for other permits in the City, consistent with the requirements of FCC regulations. Property owners may comment to the carriers or directly to the City. Under the Guidelines, carriers are required to track and provide a log of all comments and responses to the City for consideration.

The City has set a 21-day period in which the public can comment on the installation. Although comment period is 21-days, in practice, the City accepts and reviews all correspondence from residents regarding small cell facilities, even after the comment period has ended. It should be noted that Cupertino has the longest comment period of any of its surrounding communities, with other cities having comment periods that range from 7 days to 20 days:

Cupertino	-	21 Days
Campbell	-	14 Days
Los Altos	-	10 Days
Los Gatos	-	20 Days
Mountain View	-	7 Days
Palo Alto	-	14 Days
San Jose	-	20 Days
Sunnyvale	-	14 Days

To provide further notification, transparency, and information to Cupertino residents, the City has created an online GIS map and e-notification sign-up list. The GIS Map shows all proposed, permitted, and active small wireless facilities within the city, and the e-notification signup will alert interested parties, via email, of any updates to the map. The GIS map and e-notification signup can be found on the Cupertino website here: <https://www.cupertino.org/our-city/departments/public-works/permitting-development-services/small-cell-information>.

Site Preference Guidelines

The City established site preference standards to help ensure permitted small cell facilities are installed to minimize visual impacts and to prioritize commercial locations. The standards provide three tiers of preference as follows:

- Preferred Sites (Category 1)

- Less Preferred Sites (Category 2)
- Least Preferred Sites (Category 3)

Category 1 (preferred) sites include any streetlight pole located in non-residential zoning districts that do not trigger a Category 2 or 3 designation. Applications submitted for poles in Category 1 locations are reviewed strictly for engineering and constructability concerns. They follow standard noticing procedures, but do not require an alternative location assessment or documentation to establish need for their placement.

Category 2 (less preferred) sites include any streetlight poles in residential zoning districts that do not trigger a Category 3 designation. If a carrier seeks to install a small cell facility in a Category 2 site, it must show that any Category 1 site or any more preferred Category 2 site within 500' is infeasible to meet their needs.

Category 3 (least preferred) sites include any streetlight poles in residential zoning districts that also are located within any of the following areas:

- Closer than 15 feet to a signalized public roadway intersection. An intersection is measured from the start of the curb radius.
- Closer than 500 feet to any other small cell facility in the right of way owned by the same wireless carrier.
- Closer than 20 feet to an occupied structure.
- Closer than 100 feet to any public-school building.
- Closer than 100 feet to any publicly accessible playground.

A facility shall not be permitted in a Category 3 site if non-Category 3 sites are available within 500 feet of the proposed facility, unless the applicant can provide documentation showing that a specific Category 3 site is the only feasible option available to meet the carrier's needs.

The draft wireless regulations include revised location preferences. The seven tiers listed in the revised regulations are similar to the those provided in the Guidelines and reflect the fact that preferred locations for small wireless facility installation would be in non-residential areas, with subsequent tiers establishing varying levels of preference in residential areas. This new tiered system adds installations on wooden utility poles and strand-mounted facilities as least preferred locations due to the aesthetic impacts these facilities have on neighborhoods and the surrounding areas.

Additional Information

The City has executed five master license agreements with wireless service providers to permit installation of small cell facilities on City owned streetlight poles. These companies include AT&T, Crown Castle, Extenet, Mobilitie, and Verizon. The license agreements require the companies to obtain encroachment permits for proposed small wireless facilities, which in turn require compliance with applicable legal requirements.

They also include other conditions such as the requirement for providers to verify that RF emissions are within the FCC limits after the facility has been activated, as well as term lengths for the permits. The City is actively responding to small wireless facility permit applications from AT&T and Verizon, with Verizon having submitted the most applications to date.

To date, most of the small cell installations within Cupertino have been situated east of Highway 85. Small cell facilities typically require fiber optic backhaul for information, meaning that in order for these facilities to be able to transmit data, they need to receive information from fiber optic systems. The fiber optic networks currently in operation within Cupertino are localized on the east side of the city. Fiber optic providers are slowly expanding their networks westward through the city, but that expansion is ongoing and is a slow process. Highway 85 has also acted as a barrier that hinders westward expansion of fiber optic networks, which is why there are few small cell facilities west of the highway at this time.

Draft Ordinance

Cupertino has historically regulated small wireless facilities using encroachment permits and formal administrative written guidelines. In response to Council direction, staff has prepared a draft ordinance tailored specifically to wireless facilities in the public right of way. Staff has also prepared regulations that include siting preferences and design requirements. The adoption of the regulations would be authorized by the draft ordinance. The intent of the proposed ordinance and regulations is to ensure that local control over the placement of small wireless facilities is retained to the greatest extent permitted under state and federal law, while also creating clear, enforceable rules that can be applied by the Public Works staff who administer the program.

The draft ordinance includes the following provisions:

- Requires carriers to obtain a “wireless ROW permit” for any installation of a wireless facility in the public right of way.
- Authorizes the adoption of regulations to implement the provisions of the ordinance. The ordinance requires any revisions to the regulations other than a minor modification, as defined, to be approved by the City Council.
- Establishes an application procedure and requires that applicants provide notice to all residents and property owners within 300’ of a proposed small wireless facility.
- Authorizes the City Council to establish a fee for processing a wireless ROW permit application.
- Authorizes the Public Works Director to make findings to approve or deny a wireless ROW permit application and provides for an administrative appeal of the Director’s decision.
- Includes provisions for the revocation of permits and the removal of equipment following the revocation or termination of a wireless ROW permit.

The draft wireless regulations include the following provisions:

- Establishes specific application requirements, including requirements to evaluate alternative locations for the proposed small wireless facilities and to prepare a RF compliance report for each facility. The regulations also incorporate RF testing requirements stipulated in the City's master license agreements.
- Encourages a voluntary pre-submittal community meeting, consistent with the FCC rulemaking.
- Authorizes the peer review of applicant submittals, including RF compliance reports, at the expense of the applicant.
- Establishes standard conditions of approval.
- Establishes siting and placement preferences for small wireless facilities, with mixed-use and non-residential districts being the most preferred locations.
- Includes detailed design standards, including standards for noise, landscaping, concealment, lighting, and facility size.
- Establishes a 750-foot separation radius between small wireless facilities from the same carrier unless the applicant demonstrates that installation of the facility located within the radius is required by applicable state or federal law, or the Director determines a less-preferred location is necessary to protect public health, safety, or welfare, based on clear and convincing evidence and specific characteristics of the location of the proposed facility.

Staff will incorporate Council input on the draft ordinance and regulations and will return to Council for a first reading of the ordinance and approval of the regulations.

Sustainability Impact

No sustainability impact for hearing this report.

Fiscal Impact

There is no fiscal impact for hearing this report.

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Approved for Submission by: Pamela Wu, City Manager

Attachments:

A – Draft Ordinance

B – Draft Wireless Regulations

C – Guidelines for Encroachment Permit Submittals

D – Small Cell Design Standards