

Resolution No. 9825
Resolution of the Council of the City of Palo Alto Adopting
Objective Aesthetic, Noise, and Related Standards for
Wireless Communication Facilities in the Public Rights of Way

The Council of the City of Palo Alto RESOLVES as follows:

SECTION 1. Findings and Declarations.

- a. The tremendous growth in personal wireless services has created an increased demand for new wireless antennas and equipment. Wireless service providers are increasingly seeking to utilize public rights of way to deploy small wireless facilities to improve and expand coverage.
- b. The unregulated installation of wireless facilities, including small cell antennas, in public rights-of-way and in other locations, poses a threat to the public health, safety and welfare, including: traffic and pedestrian safety hazards due to unsafe siting; negative and irreversible impacts to trees, landscaping, and infrastructure; noise concerns; and visual and aesthetic blight due to excessive height and lack of camouflaging, negatively impacting the unique character of the City.
- c. The reasonably regulated and orderly deployment of wireless telecommunications facilities in the public right-of-way is desirable, and unregulated or disorderly deployment represents a threat to the health, welfare and safety of the community.
- d. The regulations of wireless installations are necessary to protect and preserve the aesthetic character of the community and to ensure that all wireless telecommunications facilities are installed using the least intrusive means possible.
- e. The City Council has adopted a Wireless Communication Facilities (WCFs) code to regulate the various health, welfare, and safety impacts presented by the proliferation of WCFs and to balance these impacts with the interests of consumers in receiving the benefits of wireless technologies.
- f. Federal and state law place significant limits on the City's exercise of local control over WCF matters. On September 26, 2018, the Federal Communications Commission adopted a Declaratory Ruling and Third Report and Order (WT Docket No. 17-79; WC Docket No. 17-84; FCC 18-133), further limiting local control.
- g. The regulations adopted herein represent reasonable, objective, and non-discriminatory controls on aesthetic, noise, and related impacts of WCFs in the Public Rights-of-Way.

SECTION 2. Adoption of Objective Standards for WCFs on Streetlight Poles in the Public Rights-of-Way.

The City Council hereby adopts the standards in Exhibit 1, attached to and incorporated into this resolution as if fully set forth herein, for Wireless Communication Facilities on Streetlight in the Public Rights-of-Way.

SECTION 3. Adoption of Objective Standards for WCFs on Wood Utility Poles in the Public Rights-of-Way.

The City Council hereby adopts the standards in Exhibit 2, attached to and incorporated into this resolution as if fully set forth herein, for Wireless Communication Facilities on Wood Utility Poles in the Public Rights-of-Way.

SECTION 4. If any section, subsection, clause or phrase of this resolution or the attached standards is for any reason held to be invalid, such decision shall not affect the validity of the remaining portion or sections of the resolution and exhibits. The Council hereby declares that it should have adopted the resolution and exhibits, and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid.

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SECTION 5. Environmental Review. The Council finds that this resolution is exempt from the provisions of the California Environmental Quality Act ("CEQA"), pursuant to Section 15061 of the CEQA Guidelines, because it does not authorize the construction of Wireless Communication Facilities in any locations where such facilities are not already permitted; therefore it can be seen with certainty that there is no possibility that the ordinance will have a significant effect on the environment. The resolution is further exempt under CEQA Guidelines sections 15301, 15302, 15303 and 15305 because it simply represents part of a comprehensive regulatory scheme governing minor alterations to existing facilities or small structures.

INTRODUCED AND PASSED: April 15, 2019

AYES: CORMACK, DUBOIS, FILSETH, FINE, KOU

NOES: KNISS

ABSENT: TANAKA

ABSTENTIONS:

ATTEST:

DocuSigned by:
Beth Minor
27529117DA004D7...

City Clerk

DocuSigned by:
Eric Filseth
64244717295F422...

Mayor

APPROVED AS TO FORM:

APPROVED:

DocuSigned by:
Albert Yang
15B6C45228134DC...

Deputy City Attorney

DocuSigned by:
Ed Swikada
F2DCA196668D4F9...

City Manager

DocuSigned by:
[Signature]
293CF922E1294F6...

Director of Planning and Community
Environment

EXHIBIT 1

Streetlight Poles
<p>Standard designs for WCFs located on Streetlights – An applicant proposing to attach to a Streetlight in the public right of way shall utilize one of the other designs specified herein.</p> <ul style="list-style-type: none"> a) Underground design: Radio equipment shall be placed in an underground vault in the pedestrian right of way. The antennae shall be placed in a shroud at the top of a nearby pole. <ul style="list-style-type: none"> i) Underground vaults shall be the minimum volume necessary to house WCF equipment. Application materials should explain why the proposed dimensions are required. In no event shall vault dimensions exceed 5 feet 8-inches x 8 feet 2-inches x 5 feet 7-inches or 260 cu. ft., excluding space required for ventilation or sump pump equipment. b) Top-mounted design: All equipment shall be enclosed within a shroud at the top of the pole containing both radio and antenna equipment. <ul style="list-style-type: none"> i) Top-mounted equipment shrouds shall not exceed 5.5 feet from the top of the streetlight pole and shall taper to meet the pole above the mast arm. The diameter of the antenna and shroud shall not exceed 15” at their widest. c) Minimal sunshield design: Radio equipment shall be enclosed within one or two sunshields not exceeding 8 inches wide nor 0.75 cubic feet in volume each, mounted directly to the side of the pole. Sunshields shall be attached at least 12 feet above ground level. To the extent separate antennae are required, antennae shall be placed in a shroud at the top of the pole. d) Existing signage: Radio equipment shall be attached to a pole behind existing signage under the following conditions: <ul style="list-style-type: none"> i) Radio equipment shall be placed within a shroud that does not exceed the dimensions of the sign in height and width, nor 4 inches in depth, including any required mounting bracket. ii) In no event shall WCF equipment obscure or interfere with the visibility or functioning of the signage. iii) To the extent separate antennae are required, antennae shall be placed in a shroud at the top of the pole.
<p>General standards for all WCFs located on Streetlights</p> <p>WCF equipment and shrouds</p> <ul style="list-style-type: none"> 1) Antennae shall be the smallest antennae possible to achieve the coverage objective. Except in the case of top-mounted designs, antennae shall not exceed 3 feet from the top of the streetlight pole and the associated “antenna skirt” shall taper to meet the pole above the mast arm. The diameter of the antenna and shroud shall not exceed 15” at their widest. 2) All shrouds and equipment shall be painted to match Public Works Department (PWD) standards or the existing pole, as applicable. 3) All shrouds and equipment shall be designed without gaps between materials or sky visible between component surfaces. 4) Equipment that cannot propagate an adequate signal within the shrouding required by the standard designs shall be attached to a streetlight pole at a height of 2 feet below the light mast or higher. Each instance of such equipment shall not exceed 0.85 cu. ft. nor shall the total volume of such equipment and any shrouding exceed 2.6 cu. ft. per streetlight pole. <p>Height</p> <ul style="list-style-type: none"> 5) Except for top-mounted designs, poles and all attachments will not exceed the height of similar surrounding poles by more than 3 feet. For top-mounted designs, poles and all attachments shall not exceed the height of similar surrounding poles by more than 6 feet. 6) Replacement poles will conform to PWD style guidelines where the City has adopted standards and will match the pole being replaced where no standards exist. For integrated

EXHIBIT 1

pole designs, poles shall incorporate decorative elements (e.g. fluting, decorative mast arm and luminaire, etc.) from PWD standards or existing poles, as applicable.

Landscaping

- 7) At the direction of the Urban Forestry division, Applicant shall provide street trees and/or smaller amenity trees that interrupt direct views of WCF equipment where Urban Forestry determines appropriate space exists within 35 feet of the pole.
- 8) Any existing landscaping removed or damaged by installation shall be replaced in kind.

Noise

- 9) Noise shall comply with PAMC Chapter 9.10 and shall be consistent with noise-related Comprehensive Plan goals and policies.
 - a) In residential areas with an average 24-hour noise level (L_{dn}) at or below 60 decibels (dB), noise generated by WCF equipment shall not cause the L_{dn} exceed 60dB or to increase by 5.0 dB or more, even if the resulting L_{dn} would remain below 60 dB.
 - b) In residential areas with an L_{dn} above 60 dB, noise generated by WCF equipment shall not cause the average to increase by 3.0 decibels (dB) or more.

Curb clearances

- 10) If placed below 16' above ground level, attachments shall not be placed closer than 18" to the curb, nor shall they extend over the sidewalk (Caltrans Highway Design Manual Section 309).
- 11) WCF node equipment must be at least 3' from a curb cut.

Miscellaneous

- 12) WCF installations shall not require any changes in the City's existing banner marketing program.
- 13) All cabling shall be routed entirely within the pole or an attached shroud.
- 14) Safety signage shall be the smallest size possible to accomplish its purpose.
- 15) Power disconnects shall be placed in a vault near the base of the pole.
- 16) Except as provided in these standards, no equipment cabinets may be placed at grade.
- 17) Light mast orientation, height, color temperature and other photometric information shall comply with PWD standards.

Pole location

- 18) Nodes shall utilize existing streetlight pole locations. Any new pole locations are prohibited unless approved through PWD/CPAU pole placement application.
- 19) Streetlight nodes at a designated gateway location or along a scenic corridor shall not utilize a top-mounted design.

EXHIBIT 2

Wood Utility Poles

Standard designs for WCFs located on Wood Utility Poles – An applicant proposing to attach to a wood utility pole in the public right of way shall utilize one of the other designs specified herein.

- a) **Underground design:** Radio equipment shall be placed in an underground vault in the pedestrian right of way. The antennae shall be placed in a shroud at the top of a nearby pole.
 - i) Underground vaults shall be the minimum volume necessary to house WCF equipment. Application materials should explain why the proposed dimensions are required. In no event shall vault dimensions exceed 5 feet 8-inches x 8 feet 2-inches x 5 feet 7-inches or 260 cu. ft., excluding space required for ventilation or sump pump equipment.
- b) **Top-mounted design:** All equipment shall be enclosed within a shroud at the top of the pole containing both radio and antenna equipment.
 - i) Top-mounted equipment shrouds shall not exceed 5.5 feet from the top of the pole or bayonet attachment, if one is used, and shall taper to meet the pole above the mast arm. The diameter of the antenna and shroud shall not exceed 15” at their widest.
- c) **Minimal sunshield design:** Radio equipment shall be enclosed within one or two sunshields not exceeding 8 inches wide nor 0.75 cubic feet in volume each, mounted directly to the side of the pole. To the extent separate antennae are required, antennae shall be placed in a shroud at the top of the pole.
- d) **Existing signage:** Radio equipment shall be attached to a pole behind existing signage under the following conditions:
 - i) Radio equipment shall be placed within a shroud that does not exceed the dimensions of the sign in height and width, nor 4 inches in depth, including any required mounting bracket.
 - ii) In no event shall WCF equipment obscure or interfere with the visibility or functioning of the signage.
 - iii) To the extent separate antennae are required, antennae shall be placed in a shroud at the top of the pole.

General standards for all WCFs located on Wood Utility Poles

WCF equipment and shrouds

- 1) Antennae shall be the smallest antennae possible to achieve the coverage objective. Antennae shall not exceed 5.5 feet from the top of the pole or bayonet attachment, if one is used. The diameter of the antenna and shroud shall not exceed 15” at their widest.
- 2) Bayonet attachments and equipment or antennae at the top of the shroud shall be covered by a single integrated shroud and “antenna skirt” that shall meet the pole without any gaps.
- 3) All conduit shall be mounted flush to the pole.
- 4) All shrouds and equipment shall be painted to match PWD standards or the existing pole, as applicable. Paint shall be maintained regularly and shrouds shall be repainted if necessary to match changes in pole color over time.
- 5) All shrouds and equipment shall be designed without gaps between materials or sky visible between component surfaces.
- 6) Equipment that cannot propagate an adequate signal within the shrouding required by the standard designs shall be attached to the top of the pole or on a cross arm or brace protruding from the pole to the minimum extent necessary to comply with safety standards including GO95. Such cross arm shall be placed as high on the pole as technically feasible. Each instance of such equipment shall not exceed 0.85 cu. ft. nor shall the total volume of such equipment exceed 2.6 cu. ft. per wood utility pole.

EXHIBIT 2

Height

- 7) For wood utility poles carrying power lines, replacement poles and pole-top bayonet attachments shall be the minimum height necessary to provide GO-95 mandated clearance between WCF equipment and power lines.
- 8) For wood utility poles without power lines, any pole top equipment shall not increase the height of the pole by more than six feet.
- 9) In no event shall the total height of a pole or replacement pole, including all equipment exceed 55 feet.
- 10) Replacement poles will conform to all standards adopted by CPAU.

Landscaping

- 11) At the direction of the Urban Forestry division, Applicant shall provide street trees and/or smaller amenity trees that interrupt direct views of WCF equipment where Urban Forestry determines appropriate space exists within 35 feet of the pole.
- 12) Any existing landscaping removed or damaged by installation shall be replaced in kind.

Noise

- 13) Noise shall comply with PAMC Chapter 9.10 and shall be consistent with noise-related Comprehensive Plan goals and policies.
 - a) In residential areas with an average 24-hour noise level (L_{dn}) at or below 60 decibels (dB), noise generated by WCF equipment shall not cause the L_{dn} exceed 60dB or to increase by 5.0 dB or more, even if the resulting L_{dn} would remain below 60 dB.
 - b) In residential areas with an L_{dn} above 60 dB, noise generated by WCF equipment shall not cause the average to increase by 3.0 decibels (dB) or more.

Curb clearances

- 14) If placed below 16' above ground level, attachments shall not be placed closer than 18" to the curb, nor shall they extend over the sidewalk (Caltrans Highway Design Manual Section 309).
- 15) WCF node equipment must be at least 3' from a curb cut.

Miscellaneous

- 16) Safety signage shall be the smallest size possible to accomplish its purpose.
- 17) Power disconnects shall be placed on the wood pole or in a vault near the base of the pole.
- 18) Except as provided in these standards, no equipment cabinets may be placed at grade.
- 19) If applicable, light mast orientation, height, color temperature and other photometric information shall comply with PWD standards.

Pole location

- 20) Nodes shall utilize existing wood utility pole locations. Any new pole locations are prohibited unless approved through PWD/CPAU pole placement application.
- 21) Wood utility poles at a designated gateway location or along a scenic corridor shall not utilize a top-mounted design.
- 22) WCF equipment and antennas shall be located on poles such that they do not fall within the horizontal plane defined by a 45 degree angle extending 50 feet from the center point of upper story windows, doors, balconies, and other openings.

Certificate Of Completion

Envelope Id: 802700594D59401195C3A4E7EC43FA2D	Status: Completed
Subject: Please DocuSign: RESO 9825 WCF Standards.docx	
Source Envelope:	
Document Pages: 7	Signatures: 5
Certificate Pages: 2	Initials: 0
AutoNav: Enabled	Envelope Originator:
Envelopeld Stamping: Enabled	Kim Lunt
Time Zone: (UTC-08:00) Pacific Time (US & Canada)	250 Hamilton Ave
	Palo Alto , CA 94301
	kimberly.lunt@cityofpaloalto.org
	IP Address: 12.220.157.20

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4/23/2019 11:01:17 AM	kimberly.lunt@cityofpaloalto.org	
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Storage Appliance Status: Connected	Pool: City of Palo Alto	Location: DocuSign

Signer Events

Albert Yang
 Albert.Yang@CityofPaloAlto.org
 Senior Deputy City Attorney
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 Security Level: Email, Account Authentication (None)

Signature

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 Interim Director Planning and Community Environment
 City of Palo Alto
 Security Level: Email, Account Authentication (None)

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 Signed: 4/25/2019 5:53:15 PM

Electronic Record and Signature Disclosure:
 Not Offered via DocuSign

Ed Shikada
 ed.shikada@cityofpaloalto.org
 City Manager
 City of Palo Alto
 Security Level: Email, Account Authentication (None)

DocuSigned by:

 F2DCA19CC8D4F9...
 Signature Adoption: Pre-selected Style
 Using IP Address: 174.214.35.42
 Signed using mobile

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 Viewed: 4/25/2019 6:03:49 PM
 Signed: 4/25/2019 6:05:26 PM

Electronic Record and Signature Disclosure:
 Not Offered via DocuSign


Eric Filseth
 eric.filseth@cityofpaloalto.org
 Mayor
 Security Level: Email, Account Authentication (None)

DocuSigned by:

 64244717295F422...
 Signature Adoption: Pre-selected Style
 Using IP Address: 108.169.4.229

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 Signed: 4/27/2019 5:55:12 PM

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Signer Events	Signature	Timestamp
Beth Minor Beth.Minor@CityofPaloAlto.org City Clerk City of Palo Alto Security Level: Email, Account Authentication (None)	 <p>Signature Adoption: Pre-selected Style Using IP Address: 174.85.96.67 Signed using mobile</p>	<p>Sent: 4/27/2019 5:55:14 PM Viewed: 4/27/2019 8:39:44 PM Signed: 4/27/2019 8:40:17 PM</p>

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Editor Delivery Events	Status	Timestamp
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Agent Delivery Events	Status	Timestamp
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Carbon Copy Events	Status	Timestamp
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Notary Events	Signature	Timestamp
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Envelope Summary Events	Status	Timestamps
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Signing Complete	Security Checked	4/27/2019 8:40:17 PM
Completed	Security Checked	4/27/2019 8:40:17 PM

Payment Events	Status	Timestamps
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