Protective Small Cell Wireless Ordinance Language Examples

Center for Electrosmog Prevention

The following is a collection of suggested requirements for ordinances to gain maximum protection from small cell wireless (and other) telecommunications facilities in residential and sensitive areas

- **Restrict small cell wireless** (SCW) in residential areas, and sensitive zones where children, elderly and those with special/medical needs will be, in addition to sensitive environmental and wildlife sites. All SCW’s on poles shall have a clear fall zone of not less than 200 feet in any direction. No small cell shall be allowed within (a minimum) of 1000 feet from a residential property line, in any direction, or within 1500 – 3,000 ft of civic areas, including schools, hospitals, libraries, churches, childcare centers, daycares, community centers, senior facilities, police and fire stations, parks, and sports fields - to the property lines. SCW’s and all wireless facilities shall not be located in parks or wildlife conservation zones. [Verizon has a commercial on YouTube where they measured the distance of a 5G signal (through hills and obstacles) at a distance of greater than 3,000 feet, so there should be zero issue with these setbacks, they are a necessity. This will also reduce the ugly clutter that results from unrestricted small cell installations.]

- **Preferred and non-preferred areas shall be established**, with strong incentives to locate a limited number of small cells in preferred areas. Preferred would include industrial areas through purely commercial areas; non-preferred would include residential areas, ballfields, schools; child-care, medical, and religious facilities, community centers, senior centers, and parks.

- **Restrict proximity of small cells in business areas.** No small cell should be allowed within (a minimum) of 500 feet from a business, in any direction.

- **Configuration preferences**
  Configuration. To better assist applicants, minimize clutter, and limit other impacts to aesthetics and community character:
  i. No roof-mounted in Industrial & Commercial Zones
  ii. SCW’s shall not be placed on decorative poles.
  iii. SCWs permitted on existing structures shall not be colocated.

  “Configuration Preferences.
  i. SCW’s shall be installed in one of the following configurations, ordered from most to least preferred.
  1. Co-location with a macro-tower in industrial zone
  2. Existing or replacement utility poles
  3. City-owned street light poles
  4. City-owned traffic signals
  5. New utility poles

- **Strong language.** Use words which are definitive, instead of suggestions which can be ignored.

- **Height restrictions** – SCW shall not exceed 50 feet including antennas and shall not increase the height of the original structure by more than 10%.

- **Grounds for removal if not continuously compliant** – wireless communications service providers and operational SCW’s must comply at all times with conditions of approval, this code, and all other applicable standards and laws. Failure to comply with a condition, standard, or law is grounds for revocation and requirement for removal within 10 days.

- **Small cells and their related equipment weigh 90 lbs each according to industry sources.** These can lead to top-heavy, dangerous poles. Require certification by an independent engineer hired by City and paid for by permit applicants, to assure that the pole can handle this additional weight.

- **Permit approvals must be made to be discretionary rather than ministerial,** with the entire shot clock used, so the public can provide input that can be acted on, with a new streamlined system to accommodate objections and ADA Accommodations Requests.

- **ADA language and provisions.** The ordinance lacks language that protects Americans with disabilities, and their use of these rights-of-way, their own homes and properties, and travel paths, where the small cells structures will be deployed. Small cells may make it impossible to occupy one’s home or yard, as well, if sensitive to rf radiation. ADA protection must not be discriminatory toward those who have physical mobility disabilities only. Citizens with electro-sensitivity, microwave sickness, rf sensitivity, pacemakers, metal implants, ADD/ADHD, cardiac, breathing, autoimmune, and any other conditions impacted by rf radiation exposures according to physicians, research, or
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physician associations shall be accommodated. City will provide a clear set of directions for these accommodations requests with a reasonable timeline for granting them (within 3 days after receipt) and incorporate into the shot clocks and beyond (which can then hold up the shot clock). These rights-of-way and public streets belong to residents, and this liability belongs to the municipality.

- **Require a Master Plan.** The master plan needs to be coordinated across all carriers, and provide information for each antenna project like RF exposure levels, power levels, frequencies, and location address. The master plan should also be published online with ample notice, such that citizens can provide input BEFORE the antenna is installed. REQUIRE that these companies have a plan and strategy for where they place the antennas, and enforce their compliance. This will minimize excessive, haphazard installations. If there is no plan, require it as part of permit application.

- **Require undergrounding of all equipment except antennas,** with supportive independent documentation explaining how each component works, under penalty of perjury, if challenged.

- **Noise - SCW’s shall be completely silent – noise from any SCW equipment, including but not limited to buzzing, ringing or other sounds shall not be permitted.** This includes any alleged noise or noise complaints by one or more occupants of nearby buildings or pedestrians. If noise complaint is received, small cell shall be deactivated within 24 hours and removed within 10 days.

- **No Colocation.** Co-location means multiple antennas to a single pole. And despite the thinking, it does not reduce clutter. Actually, it produces a huge eyesore of a pole with multiple projections hanging off of it. It DRAWS more attention because of the extra hardware. Colocation allows poles to become scarily top-heavy, and also exposes citizens to higher doses of radiation since multiple antennas will emit from a single location. One antenna per pole, and

- **Distance between poles:** no small cells or antennas shall be permitted within 1500 feet of ANY other antenna, even from other providers, whether on new or existing street poles.

- **No cutting or disturbance of trees and landscaping – at all.** This must be forbidden! There are other towns and cities with gorgeous, old trees being chopped down or excessively trimmed to allow for small cell deployment.

- **Provide clear-easy-to-reach City support for citizens.** We need to have a dedicated hotline/service to contact the City when issues with the small cells arise, such as noise, safety, health problems, or other complaints need to be reported. This service can be funded by the wireless providers as a part of their application/bond/yearly renewal fees.

- **Insurance for rf radiation and other injuries, and Bonds.** Require proof that the companies, annually, have adequate liability insurance ($2 million dollars each small cell) and bonds of $500,000 per small cell to protect against malfunction, accidents, damages, and injuries, including from exposure to nonionizing radiation for the entire year. These provide protection for the City too. Indemnification is not enough.

- **FCC limits must not be exceeded** – all SCW installations must be physically installed and aligned so as to ensure that FCC Limits for Maximum Permissible Exposure (MPE) for radiofrequencies (RF) are not exceeded, per 47 § C.F.R. 1.1310, per independent 3rd party testing by licensed engineer hired by City (paid by applicant). Initial rf study on actual emissions, conducted by independent certified, licensed 3rd party engineer required prior to City approval to activate SCW.

- **RF emissions third-party testing.** Independent third party inspections, by companies contracting with the City, must be required at least once annually for recertification, or upon request due to complaints or random checks by City, at the expense of the telecom company owning the small cells, to ensure compliance with FCC guidelines for each pole (in total) and for each small cell on the pole, and for any collective antennas within 100 feet of each other.

- **Require notice for any residence within a mile** of a proposed small cell site, within 1 day of application, to provide ample time for residents to come forward and provide input, particularly those with medical reasons to avoid rf radiation. During noticing, large signage noticing, within one day of application, must also be placed on prospective poles with full details of application plans in large print, including frequencies and power, size of small cell.

- **Approvals for permits may only be reissued yearly with new re-application,** with proof of having met all criteria including noticing, liability insurance as above, and bonds. **Small cells may not be upgraded without a full new application process.**
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- **Require safety signage on all poles.** All poles must have necessary warning signs and RF safety information as well as company and County contact names and phone numbers. Include total rf emission levels near bottom ten feet of poles or general area if more than one pole.
- **If any applicable portions or the whole of the FCC Declaratory Ruling and Third Report and Order adopted Sept. 26, 2018 (FCC 18-133) are repealed, overturned (or vacated), all SCW’s shall be deactivated within 10 days from that date and removed within 30 days.**
- **Post-inspection approval** – SCW’s shall be placed in operation only after receipt of post-inspection approval by city.


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**Key Points of Local Ordinances**

- **FCC Clause:** Have a clause voiding the agreement or requiring it modification in the event of a regulatory change (overturning the FCC Order), according to a report by [Next Century Cities](https://nextcenturycities.com).
- **Maintain that all wireless facilities both small cells and cell towers require a Conditional Use Permit** by the planning department followed by an encroachment permit. (remove Minor wireless permit section 18.41.050 and add all wireless communications facilities to section 18.41.060 which is reopened every 3 to 5 years - [Sonoma City, California](https://www.sonomacity.ca.us/).)
- **Significant Gap in coverage:** Maintain requirement for significant gap in coverage to be identified for approval of both small cells and cell towers.
- **Least Intrusive Methods:** Maintain requirement for the least intrusive methods to fill the gap for both small cells and cell towers. A justification study which includes the rationale for selecting the proposed use; if applicable, a detailed explanation of the coverage gap that the proposed use would serve; and how the proposed use is the least intrusive means for the applicant to provide wireless service. Said study shall include all existing structures and/or alternative sites evaluated for potential installation of the proposed facility and why said alternatives are not a viable option. (Old-Palos Verdes)
- **1500 Foot Setback** from other small cell installations: Every effort shall be made to locate small cell installations no less than 1500 feet away from the Permittee’s or any Lessee’s nearest other small cell installation, or within ___ feet of any permanent residential dwelling. (ART Ordinance) Setbacks Between Small Cells [Calabasas, Petaluma, Fairfax, Mill Valley, and San Ramon (all California)] require 1,500 feet between SCFs. ([Boulder, CO Recommendation-Boulder Colorado Small Cell Ordinance Legal Opinion Policy Report](https://bouldercounty.org/government/office-of-the-city-manager/785/ordinances)).
- **Radiofrequency Data Report Requirement:** Have a thorough radiofrequency data requirement as part of the submittal for consultants. For all applications require that both an [RF Compliance Report](https://www.electrosmogprevention.org) signed by a registered Professional Engineer, and a supporting RF Data Request Form as Attachment A as provided is mandatory. RF DATA SHEET (can be an attached form to be filled out and submitted with application).
The following is a collection of suggested requirements for ordinances to gain maximum protection from small cell wireless (and other) telecommunications facilities in residential and sensitive areas.

- **Preferred or Disfavored Locations**: In addition to residential areas, designate areas where cell towers are disfavored and not permitted, i.e. near schools, residential areas, city buildings, sensitive habitats, on ridge lines, public parks, Historic Overlay Districts, in open spaces or where they are favored i.e. commercial zoning areas, industrial zoning areas. (Boulder, CO Report: Boulder Colorado Small Cell Ordinance Legal Opinion Policy Report)

- **Disfavored Location**: Every effort should be made to avoid placement of small cell installations in close proximity to residences, particularly from sleeping and living areas. Viable and defendable setbacks will vary based on zoning. (ART ordinance)

- **Prohibited Zones for Small Cells**: Prohibits small cell telecommunication facilities in residential zones and multi-family zoning districts (Mill Valley)

- **Require Mock-up**: Require full-size mock-up of proposed SCFs and other pertinent information in order to adequately consider the same potential impacts. It also may want to adopt Larkspur’s approach to require construction drawings, a site survey, and photo simulations. (Boulder, CO Report)

- **Public notifications** of planning commission hearings: Either in newspaper, website no less than 14 days prior to the date of the hearing.

- **Notification of all property owners** within 500 feet of the proposed installation within X timeframe

- **Drip line of tree/heritage trees**: No facility shall be permitted to be installed in the drip line of any tree in the right-of-way…. (Old-Palos Verdes)

- **Speculative Equipment Prohibited**: The city finds that the practice of “pre-approving” wireless equipment or other improvements that the applicant does not presently intend to install but may wish to install at some undetermined future time does not serve the public’s best interest. The city shall not approve any equipment or other improvements in connection with a Wireless Telecommunications Facility (Old-Palos Verdes)

- **Americans with Disabilities Act (ADA) Compliance**: All facilities shall be in compliance with the Americans with Disabilities Act (ADA). (New Palos Verdes)

- **Authorization from Property Owner**: If the facility will be located on or in the property of someone other than the owner of the facility (such as a street light pole, street signal pole, utility pole, utility cabinet, vault, or cable conduit), the applicant shall provide a duly executed written authorization from the property owner(s) authorizing the placement of the facility on or in the property owner’s property. (Palos Verdes)

- **Community Meeting**: The applicant would be required to hold a community meeting at least two weeks prior to the planning commission hearing on the use permit. (San Anselmo)

- **Noise Complaints**: If a nearby property owner registers a noise complaint, the city shall forward the same to the permittee. Said complaint shall be reviewed and evaluated by the applicant. The permittee shall have ten (10) business days to file a written response regarding the complaint which shall include any applicable remedial measures. If the city determines the complaint is valid and the applicant has not taken any steps to minimize the noise, the city may hire a consultant to study, examine and evaluate the noise complaint and the permittee
shall pay the fee for the consultant if the site is found in violation of this chapter. The matter shall be reviewed by the director. If the director determines sound proofing or other sound attenuation measures should be required to bring the project into compliance with the Code, the director may impose conditions on the project to achieve said objective. (Old- Palos Verdes)

• **Transfer of Permit:** The **permittee shall not transfer the permit** to any person prior to the completion of the construction of the facility covered by the permit, unless and until the transferee of the permit has submitted the security instrument required by section 12.18.080(B)(5). (Palos Verdes)

• **General Liability Insurance $ 2-5 million to protect the City:** The permittee shall obtain, pay for and maintain, in full force and effect until the facility approved by the permit is removed in its entirety from the public right-of-way, an insurance policy or policies of commercial general liability insurance, with minimum limits of Two Million Dollars ($2,000,000) for each occurrence and Four Million Dollars ($4,000,000) in the aggregate, that fully protects the city from claims and suits for bodily injury and property damage. The insurance must name the city and its elected and appointed council members, boards, commissions, officers, officials, agents, consultants, employees and volunteers as additional named insureds, be issued by an insurer admitted in the State of California with a rating of at least A:VII in the latest edition of A.M. Best’s Insurance Guide, and include an endorsement providing that the policies cannot be canceled or reduced except with thirty (30) days prior written notice to the city, except for cancellation due to nonpayment of premium…. (Old- Palos Verdes)

• **Endangerment, interference:** No person shall install, use or maintain any facility which in whole or in part rests upon, in or over any public right-of-way, when such installation, use or maintenance endangers or is reasonably likely to endanger the safety of persons or property, or when such site or location is used for public utility purposes, public transportation purposes or other governmental use, or when such facility unreasonably interferes with or unreasonably impedes the flow of pedestrian or vehicular traffic including any legally parked or stopped vehicle, the ingress into or egress from any residence or place of business, the use of poles, posts, traffic signs or signals, hydrants, mailboxes, permitted sidewalk dining, permitted street furniture or other objects permitted at or near said location.

• **Independent Expert:** The director is authorized to retain on behalf of the city an independent, qualified consultant to review any application for a permit for a wireless telecommunications facility. The review is intended to be a review of technical aspects of the proposed wireless telecommunications facility and shall address any or all of the following: xxxx (Old- Palos Verdes)

• **Annual Recertification:** Each year, commencing on the first anniversary of the issuance of the permit, the Permittee shall submit to the Town an affidavit which shall list all active small cell wireless installations it owns within the Town by location, certifying that (1) each active small cell installation is covered by liability insurance in the amount of $2,000,000 per installation, naming the Town as additional insured; and (2) each active installation has been inspected for
safety and found to be in sound working condition and in compliance with all federal safety regulations concerning RF exposure limits. (ART Ordinance)

- **Random Testing for RF Compliance**: The Town shall have the right to employ a qualified RF engineer to conduct an annual random and unannounced test of the Permittee’s small cell wireless installations located within the Town to certify their compliance with all FCC radio-frequency emission limits as they pertain to exposure to the general public. The reasonable cost of such tests shall be paid by the Permittee. (ART Ordinance)

- **Violation of compliance Notification**: In the event that such independent tests reveal that any small cell installation or installations owned or operated by Permittee or its Lessees, singularly or in the aggregate, is emitting RF radiation in excess of FCC exposure guidelines as they pertain to the general public, the Town shall notify the Permittee and all residents living within 1500 feet of the small cell installation(s) of the violation, and the Permittee shall have forty-eight (48) hours to bring the small cell installation(s) into compliance. Failure to bring the small cell installation(s) into compliance shall result in the forfeiture of all or part of the Compliance Bond, and the Town shall have the right to require the removal of such installation(s), as the Town in its sole discretion may determine is in the public interest. (ART Ordinance)

- **Non-acceptance of Applications**: Where such annual re-certification has not been properly or timely submitted, or equipment no longer in use has not been removed within the required 30-day period, no further applications for small cell wireless installations will be accepted by the Town until such time as the annual re-certification has been submitted and all fees and fines paid. (ART ordinance)

- **Order of preference – Location.** The order of preference for the location of small cell installations in the Town, from most preferred to least preferred, is: 1. Industrial zone 2. Commercial zone 3. Mixed commercial and residential zone 4. Residential zone (ART Ordinance and New Palos Verdes)

- **Fall Zone**: The proposed small cell installation shall have an adequate fall zone to minimize the possibility of damage or injury resulting from pole collapse or failure, ice fall or debris fall, and to avoid or minimize all other impacts upon adjoining property

- **1500 Foot Setback**: from other small cell installations: Every effort shall be made to locate small cell installations no less than 1500 feet away from the Permittee’s or any Lessee’s nearest other small cell installation, or within _____ feet of any permanent residential dwelling. (ART Ordinance)

- **1000 Foot Setback From Residencies**: The setback for Calabasas, CA is 1,000 feet (Boulder, CO Report). 500 ft Setback from residencies (Petaluma).

- **Aesthetics and Undergrounding**: All equipment not to be installed on or inside the pole must be located underground, flush to the ground, within three (3) feet of the utility pole. Each installation is to have its own dedicated power source to be installed and metered separately.
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- **Aesthetic Requirements:** Law firm Baller Stokes & Lide highlighted the following aesthetic considerations that local governments can consider: “Size of antennas, equipment boxes, and cabling;
  - Painting of attachments to match mounting structures;
  - Use of shrouds, stealth techniques, or other camouflage;
  - Flush-mounting of antennas;
  - Placement of equipment in the pole base rather than on the outside of the pole;
  - Consistency with the character of historic neighborhoods;
  - Minimum spacing between attachments;” and
  - Aesthetic standards for residential neighborhoods, including “any minimum setback from dwellings, parks, or playgrounds; maximum structure heights; or limitations on the use of small, decorative structures as mounting locations.” (Boulder, CO Report)

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Examples of City Small Cell Wireless Facilities Emergency Ordinances

- **City of Belvedere, California**
  https://www.cityofbelvedere.org/DocumentCenter/View/5641/Item-11

- **Calabasas, California** *(very strong)*
  [pdf](https://www.cityofcalabasas.com/pdf/wireless/Wireless_Facility_Ordinance_w_CC_Changes052312.pdf) or [html](https://www.cityofcalabasas.com/wireless-ordinance.html)

- **Fairfax, California**
  Fairfax Emergency Wireless Ordinance 2018

- **Hillsborough Wireless Update** January 2019 *(weak)*
  [https://library.municode.com/ca/hillsborough/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15.32WICOFA](https://library.municode.com/ca/hillsborough/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15.32WICOFA) or [https://www.hillsborough.net/482/Wireless](https://www.hillsborough.net/482/Wireless)

- **Los Altos, California** *(very strong)*
  passed Aug 5, 2019

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- Newark, California. [http://www.newark.org/home/showdocument?id=4629](http://www.newark.org/home/showdocument?id=4629)


- Petaluma, California (setbacks good) [https://www.codepublishing.com/CA/Petaluma/html/Petaluma14/Petaluma1444.html](https://www.codepublishing.com/CA/Petaluma/html/Petaluma14/Petaluma1444.html)


- Sonoma City, California (strong) [https://sonomacity.civicweb.net/document/17797](https://sonomacity.civicweb.net/document/17797)

- Suisun, California (medium) [https://www.suisun.com/small-cells/](https://www.suisun.com/small-cells/)