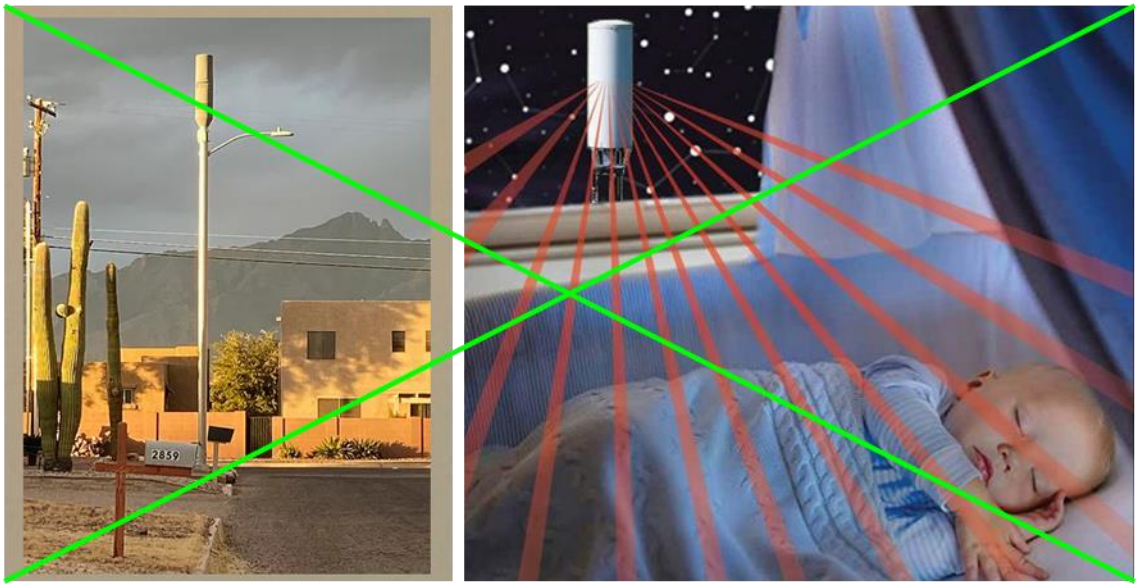
Tucsonans' Wireless Telecommunications Facilities Ordinance

Fix Tucson's small cell wireless problem today for a better future tomorrow



We, the dedicated and informed residents and business owners of Tucson, submit this Wireless Telecommunications Facilities Ordinance with the purpose to promote and protect safety, privacy, life, and property, as well as a "sustainable community that embraces prosperity, equity, and a healthy environment" for the Tucson community (Plan for Tucson, 2013).

April 1, 2021

Executive Summary

We, the dedicated and informed residents and business owners of Tucson, submit this Wireless Telecommunications Facilities Ordinance with the purpose to promote and protect safety, privacy, life, and property, as well as a "sustainable community that embraces prosperity, equity, and a healthy environment" for the Tucson community (Plan for Tucson, 2013). Accordingly, the purpose of this ordinance is to:

1) Provide benefits to the City, its residents and general public from access to personal wireless services while *minimizing their detriments;*
2) Ensure *minimum power necessary* to provide personal wireless communications, thereby protecting public safety, privacy, and property values;
3) Permit placement, construction, modification, and operation of personal wireless facilities and other wireless infrastructure *only where needed*, thereby reducing adverse economic impacts and impacts on, safety, privacy, and/or aesthetics of nearby properties and the community as a whole;
4) Comply with applicable law, including the 1996 Telecom Act and Arizona HB2365.

In the interest of practicing cooperative federalism, the ordinance establishes more attentive and balanced Wireless Telecommunications Facility (hereinafter: WTF) development standards that provide sufficient wireless telecommunications service without violating the inalienable rights preserved by the Arizona and U.S. Constitutions to life and property of Tucson residents and businesses and to the quiet enjoyment of our streets.

The ordinance proposes the "Tucson Wireless Telecommunications Facility code" (hereinafter: WTC-code) to modify the current code in Chapter I of Section 4.9.4 of the Tucson Arizona Unified Development Code in conjunction with defining and enforcing compliance with federal law. In so doing, it provides the means for the City of Tucson to protect public safety, privacy and property values, as well as the City of Tucson's financial security, within the directives of applicable state and federal laws. It thereby grants more competent fulfillment of the Mayor's and City Council's Loyalty Oath of Office.

The ordinance is intended to institute local WTF standards, a procedure to manage the operations of WTFs and permit needed WTFs, with an emphasis on the assessment and minimization of any negative impacts from WTFs within the boundaries of the City of Tucson, Arizona. The ordinance ensures that "small" Wireless Telecommunications Facilities (hereinafter: sWTFs) currently permitted or installed in Tucson's public rights-of-way comply with local, state and federal law.

Highlights of the proposed ordinance include

1) *Enforce collocation* of infrastructure on nearby towers;
2) *Limit maximum effective radiated power* (ERP) to a level providing 5-bar telecom service;
3) Retrofit ~450 currently permitted sWTFs to ensure *minimum power necessary;*
4) *Require NEPA review* and compliance on all permit applications;
5) *Require "fiber sharing boxes"* in public rights-of-way to promote Fiber To Premises (FTTP);
6) Implement fuse boxes and policing fees to *ensure compliance and generate revenue* for the City of Tucson, Arizona.

Contents

Legend

Bolded text and red text, below, is original code language, highlighted to heighten understanding

Proposed inline additions to original code language start with **[Δ followed by suggested addition]**

Proposed deletions are in ~~strike through text~~.

> Notes appear in green boxes

Key Terms

City = The City of Tucson

dBm = deciBel milliWatt, a measure of Signal Strength

EMF = Electromagnetic Fields

RF-EMR = Pulsed, data-modulated, Radio-frequency Electromagnetic Microwave Radiation

WTF = Wireless Telecommunications Facility

Wireless [Δ: Tele]Communications Provider = The entity that provides wireless **[Δ: tele]**communication service.

[∆ Retrofit]

1. to furnish with new or modified parts or equipment not available or considered necessary at the time of installation
2. to install (new or modified parts or equipment) in something previously manufactured or constructed
3. to adapt to a new purpose or need

Section A. Checklist for Tucson WTF-Code

This section provides a check list of 10 advised requirements for “applicants” (any person that submits an application and that is a wireless provider) and WTFs prospectively or presently installed in the City of Tucson.

1. The WTF-Code requires each applicant to place substantial written evidence in the public record to establish that it has sufficient liability insurance coverage for the purpose and does not exclude claims for injury, illness, impairment or death from EMF or RF-EMR. The applicant must list its board of directors on the application, a copy of which, with its full insurance policy, shall be immediately in the public record.

2. The WTF-Code requires each applicant to place in the public record substantial written evidence proving that a significant gap in telecommunications service exists in the proposed WTF’s desired target area (search ring) as a condition for approval of any WTF application; denial of the WTF application on the basis of lack of such gap does not constitute Effective Prohibition of Service, per US Code Title 47 §253 and §332.

3. The WTF-Code requires each applicant to place in the public record substantial written evidence proving that the applicant has by thorough research sought to, and will, place the applied-for WTF in the least intrusive location: i.e., in a non-residential area, at sufficient distance from homes, schools, daycare facilities, healthcare facilities and parks; and that the applicant will achieve Signal Strength Grades shown in Table 1, below.

4. The WTF-Code requires that, in any area accessible to the general population, if any Carrier-specific, licensed frequency/band/channel already achieves a grade of ‘A’ or ‘B’ for Signal Strength in Table 1, below, this constitutes substantial written evidence proving NO NEED for any applied-for Carrier-specific WTF in said area.

5. The WTF-Code requires each applicant to place in the public record substantial written evidence proving that the applicant has notified by certified mail all homeowners, leaseholders, residents, and businesses within 1,000 feet of the applied-for WTF.

6. The WTF-Code requires each applicant to place in the public record substantial written evidence proving that the aggregate RF-EMR emissions from all existing and applied-for WTFs transmitting to the applied-for target area (search ring) of the applied-for WTF will not and cannot by future modification or other cause the total RF-EMR from all sources to exceed FCC general-public RF-EMR emissions guidelines in any area accessible to people.

7. The WTF-Code requires each applicant to place in the public record substantial written evidence in the form of a sworn, signed-and-dated statement testifying to the applicant-agent's recognition that federal administrative rules are not laws, and that the applied-for WTF does now and will continue to comply with all Federal Acts and their legislative purposes, including, but not limited to, the Communications Act of 1934 and its Amendments, the Telecommunications Act of 1996, the 2012 Spectrum Act, the Americans with Disabilities Act (ADA), the Fair Housing Amendments Act (FHAA), the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

8. The WTF-Code requires each applicant to place in the public record substantial written evidence proving that the applicant has completed NEPA and NHPA reviews for the applied-for WTF, per Federal Communications Commission (FCC) mandate, following the August 9, 2019 Ruling in Case 18-1129, Keetoowah et al v. FCC.

9. The WTF-Code requires that the City hires a certified RF-EMR engineer or consultant to conduct random, unannounced Signal Strength tests of carrier-specific frequencies/bands/channels at the expense of the WTF operator, that the City levy substantial financial penalties as specified in the application for first two violations and loss of permit for a third violation, and that the operator sign by its agent within the application its agreement to the Signal Strength testing expense and potential financial penalties and loss of permit for violations.

10. The WTF-Code requires that each applicant post conspicuous signage noticing pending application at any and all applied-for sites.

Table 1: Wireless Carrier Signal Strength Report Card

(for any Carrier-specific licensed voice frequency/band/channel)

Grade	Signal Strength	Action
A - Excellent	-90 dBm to -125 dBm	**Approve**
B - Good	-80 dBm to -89 dBm	**Approve**
C - Fair	-70 dBm to -79 dBm	**Retrofit**
D - Poor	-60 dBm to -69 dBm	**Retrofit**
F - Failing	Exceeds -60 dBm	**Retrofit**

Section B. Tucson WTF-Code Purpose and Intent

This Section outlines the purpose and intent of the proposed City of Tucson Municipal Wireless Telecommunications Facilities code

The purpose of the WTF-code is to regulate the placement, construction, modification, and operations of personal wireless service facilities and other wireless antennas in the City of Tucson (Hereinafter "City"). The unrestricted construction of redundant personal wireless service facilities is contrary to the city's efforts to do the following:

- Stabilize economic and social aspects of neighborhood environments;
- Satisfy health, safety and aesthetic objectives;
- Maintain property values by not degrading the visual and economic value of adjoining properties, especially in residential areas; and
- Promote family environments and a residential character within the city

. . . to the maximum extent allowed by law.

Whereas, wireless services provide some benefit to individuals, businesses and the economy.

Whereas, the construction and operation of the facilities and equipment associated with wireless services

- results in aesthetic and visual blight;
- reduces the value of adjacent properties;
- creates public safety harms, especially to those who may have preexisting conditions exacerbated by exposure to wireless emissions or have been or will be directly sickened by exposure to wireless emissions;
- presents economic and fiscal challenges to the City and its residents; and
- gives rise to significant potential liability by the City.

Whereas, Congress stated in Title 47 US Code §332(c)(7)(B)(iv):

> *"No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."*

Whereas, Title 47 US Code §332(c)(7)(B)(i) states

> *"The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof —*
> *(I) shall not unreasonably discriminate among providers of functionally equivalent services; and*
> *(II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services."*

Whereas, Congress reserved the City's right to regulate the "operation" of personal wireless service facilities under Title 47 U.S. Code §332, subject to limitations in other provisions of Title 47, US Code.

Whereas, the FCC has enacted various rules that purport to implement various provisions in the 1996 Telecommunications Communications Act (herein the "1996-TCA"), the City believes some of the FCC's Orders and Rules go beyond, violate or are not consistent with the Congressional intent of the 1996-TCA, and many of those FCC Orders and Rules are presently subject to judicial review and may change.

Whereas, there is ample scientific evidence, including US government studies, indicating adverse health effects and negative health consequences from levels of radiation well below the FCC Radiofrequency ("RF") emissions guidelines;

- The World Health Organization's International Agency for Research on Cancer (IARC) classified RF-EMR from all sources as a Group 2B carcinogen;
- Members of that IARC Working group are calling for a reclassification of RF-EMR as a Group 1 carcinogen;
- In 2014, California Medical Association passed a resolution acknowledging that the science has shown profound adverse effects of wireless technology and called on the FCC to update its RF-EMR exposure guidelines;
- In 2018 the California Department of Public Health published guidelines admitting that peer reviewed scientific studies show evidence that wireless radiation may cause DNA damage, reproduction harms, cancer and learning disabilities among other effects;
- Some residents of the City have already been injured by RF-EMR emissions within the allowed FCC RF -EMR guidelines; and,
- Despite being fully apprised of these things the FCC's present RF emissions rules are not biologically based or sufficiently protective of human or animal life or the environment.

Whereas the City has traditionally had the power and duty to protect the health and safety of its residents and deliver actual public safety

Whereas, the City reserves the right and intends to exercise its powers to protect its residents, its right to exercise all available power and right over its own property and regulate the use and occupation of that property, and to regulate land use to the maximum extent allowed by law, while nonetheless respecting and adhering to the law as it may be and may change as the result of judicial review, potential statutory changes by Congress or valid rule amendments by the FCC.

In enacting this ordinance, the City of Tucson intends to:

1. Promote and protect the quiet enjoyment of the City's streets;

2. Promote and protect the health, safety, comfort, convenience and general welfare of residents and business consistent with City's General Plan of 2013;

3. Provide the benefits derived by the City, its residents and the general public from access to personal wireless services while minimizing their detriments;

4. Balance these goals, by permitting the placement, construction, modification and operation of personal wireless facilities and other wireless infrastructure antennas where they are needed, while reducing adverse economic, health, safety and/or aesthetic impacts on nearby properties and the community as a whole; and

5. Comply with applicable law, including the 1996 Telecommunications Act and state law. No provision shall be interpreted in a manner that violates state or federal law. Any provision found to be beyond the City's power shall be severable, but subject to replacement or correction in a manner that is consistent with state and federal law.

It is the intent of the City that no additional rights, vested interests or entitlements be conferred to place, construct, modify or operate personal wireless service facilities, other than those rights or entitlements mandated by applicable state or federal law and as to those only insofar as they continue to be required by state or federal law.

This ordinance is intended to provide local standards and a process for evaluating the need for WTFs, a process for permitting needed WTFs, with an emphasis on assessing and minimizing any negative impacts from the placement, construction, modification and operations of any WTFs within the boundaries of the City of Tucson, AZ.

The Ordinance will comply with

- The City of Tucson General Plan, known as Plan Tucson from 2013,
- Tucson Muni Code Chapter 7B: Tucson Competitive Telecommunications Code
- Current City of Tucson Wireless Telecommunications Facilities Muni Code, Chapter I
- The 1934 Communications Act, as amended by the 1996 Telecommunications Act (herein “1996-TCA”) and by the 2012 Spectrum Act (herein “2012-SA”).
- Arizona HB.2365: Use of Public Highways by Wireless Providers
- Arizona Public Utilities Commission Code
- FCC Orders that are consistent with the underlying federal statutes.

Section C. Tucson WTF-Code Definitions

This section renders definitions of the various terms related to WTFs in current law. It demonstrates conflicts in Federal, State, and local code.

Definitions adapted from Arizona HB.2365 and the 1996-TCA.

1. "**Antenna**" means telecommunications equipment that transmits or receives electromagnetic radio frequency signals and that is used in providing personal wireless services.

2. "**Applicant**" means any person that submits an application and that is a wireless provider.

3. "**Application**" means a request that is submitted by an applicant to an authority for a permit to collocate small wireless telecommunications facilities or to approve the placement, replacement, construction or modification of a utility pole or wireless support structure.

4. "**Collocate**" means placement, replacement, construction or modification of a Wireless Telecommunications Facility on or within ~~or adjacent to~~ a wireless support structure or utility pole.

5. ~~"**Communications service**" means cable service as defined in 47 united states code section 522(6), information service as defined in 47 united states code section 153(24), telecommunications service as defined in 47 united states code section 153(53) or wireless service.~~ *Instead, incorporate separate definitions of Title 47 U.S. Code §153 Definitions*

6. From §153(50) **Telecommunications.** The term "telecommunications" means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

7. From §153(53) **Telecommunications service.** The term "telecommunications service" means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

8. From §153(24) **Information service.** The term "information service" means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for

the management, control, or operation of a telecommunications system or the management of a telecommunications service.

9. From §153(40) **Radio communication**. The term “radio communication” means the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus.

10. From §153(42) **Radio station.** The term “radio station” or “station” means a station equipped to engage in radio communication or radio transmission of energy.

11. From §324 **Use of minimum power.** In all circumstances all radio stations shall, use the minimum amount of power necessary to carry out the communication desired.

12. From §153(33) **Mobile service.** The term “mobile service” means a radio communication service carried on between mobile stations or receivers and land stations, and by mobile stations communicating among themselves, which includes

    (A) both one-way and two-way radio communication services

    (B) a mobile service which provides a regularly interacting group of base, mobile, portable, and associated control and relay stations (whether licensed on an individual, cooperative, or multiple basis) for private one-way or two-way land mobile radio communications by eligible users over designated areas of operation, and

    (C) any service for which a license is required in a personal communications service established pursuant to the proceeding entitled “Amendment to the Commission’s Rules to Establish New Personal Communications Services” (GEN Docket No. 90–314; ET Docket No. 92–100), or any successor proceeding.

13. ~~“Communications service provider” means a cable operator, a provider of information service as defined in 47 united states code § 153(24), a telecommunications carrier as defined in 47 united states code section § 153(51) or a wireless services provider.~~ *Instead, incorporate separate definitions of Title 47 U.S. Code §153 Definitions*

14. **Telecommunications Service Provider.** A provider of telecommunications service, as defined in 47 United States code section § 153(53)

15. **Information Service Provider.** A provider of information service, as defined in 47 United States code section § 153(24)

16. "**Monopole**" means a wireless support structure that is not more than forty inches in diameter at the ground level and that **has all of the wireless facilities mounted on the pole or contained inside of the pole.**

17. "**Permit**" means written permission from an authority to install, mount, maintain, modify, operate or replace a utility pole or monopole, to **collocate** a small wireless telecommunications facility on a utility pole or wireless support structure or to **collocate** wireless telecommunications facilities on a monopole.

18. "**Private easement**" means an easement or other real property right that is only for the benefit of the grantor and grantee and the grantor's or grantee's successors and assigns.

19. "**Right-of-way**" means the area on, below or above a public roadway, highway, street, sidewalk, or alley or utility easement. Right-of-way does not include a federal interstate highway, a state highway or state route under the jurisdiction of the department of transportation, a private easement, property that is owned by a special taxing district, or a utility easement that does not authorize the deployment sought by the wireless provider

20. ~~"Small wireless telecommunication facility" means a wireless facility that meets both of the following qualifications:~~

    - ~~(a) all antennas are located inside an enclosure of not more than six cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of the antenna's exposed elements could fit within an imaginary enclosure of not more than six cubic feet in volume.~~
    - ~~(b) all other wireless equipment associated with the facility is cumulatively not more than twenty-eight cubic feet in volume, or fifty cubic feet in volume if the equipment was ground mounted before the effective date of this section. The following types of associated ancillary equipment are not included in the calculation of equipment volume pursuant to this subdivision: (i) an electric meter, (ii) concealment elements, (iii) a telecommunications demarcation box, (iv) grounding equipment, (v) a power transfer switch, (vi) a cutoff switch, (vii) vertical cable runs for the connection of power and other services.~~

21. As amended in Dec, 2019, from Title 47 CFR §1.6002 **"Small wireless telecommunications facilities"** are facilities that meet each of the following conditions:

(1) The facilities—

(i) Are mounted on structures 50 feet or less in height including their antennas as defined in § 1.1320(d); or

(ii) Are mounted on structures no more than 10 percent taller than other adjacent structures; or

(iii) Do not extend existing structures on which they are located to a height of more than 50 feet or by more than 10 percent, whichever is greater;

(2) Each antenna associated with the deployment, excluding associated antenna equipment (as defined in the definition of antenna in § 1.1320(d)), is no more than three cubic feet in volume;

(3) All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume;

(4) The facilities do not require antenna structure registration under part 17 of this chapter;

(5) The facilities are not located on Tribal lands, as defined under 36 CFR 800.16(x); and

(6) The facilities do not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in § 1.1307(b)

22. “**Utility pole**” means a pole or similar structure that is used in whole or in part for telecommunications service, information services, electric distribution, lighting or traffic signals. Utility pole does not include a monopole.

23. “**Wireless facility**”:

(a) means equipment at a fixed location that enables wireless telecommunications between user equipment and a communications network, including both of the following:

- (i) equipment associated with wireless communications.
- (ii) radio transceivers, antennas, coaxial or fiber-optic cables, regular and backup power supplies and comparable equipment, regardless of technological configuration.

(b) includes small wireless telecommunications facilities.

(c) does not include the structure or improvements on, under or within which the equipment is collocated, wireline backhaul facilities, coaxial or fiber-optic cable that is between wireless support structures or utility poles or coaxial or fiber-optic cable that is otherwise not immediately adjacent to, or directly associated with, an antenna.

~~(d) does not include wifi radio equipment described in section 9-506, subsection i or microcell equipment described in section 9-584, subsection e~~.

24. “**Wireless telecommunications infrastructure provider**” means any person that is authorized to provide telecommunications service in this state and that builds or installs wireless telecommunications transmission equipment, wireless facilities, utility poles or monopoles but that is not a wireless telecommunications services provider. Wireless telecommunications infrastructure provider does not include a special taxing district.

25. “**Wireless provider**” means a cable operator, wireless telecommunications infrastructure provider or wireless telecommunications services provider.

26. “**Wireless services**” means any services that are provided to the public and that use licensed or unlicensed spectrum, whether at a fixed location or mobile, using wireless facilities.

27. “**Wireless services provider**” means a person that provides wireless services. Wireless services provider does not include a special taxing district.

28. “**Wireless support structure**”:

(a) means:

(i) a freestanding structure, such as a monopole.

(ii) a tower, either guyed or self-supporting.

(iii) a sign or billboard.

(iv) any other existing ~~or proposed~~ structure designed to support or capable of supporting small wireless telecommunications facilities.

(b) does not include a utility pole.

Incorporate Definitions from *1996-TCA* and 1996-TCA *Conference Report*:

“Use of Minimum Power” — Title 47 U.S.C. §324
In all circumstances all radio stations, shall use the minimum amount of power necessary to carry out the communication desired.

“Communication desired” — Title 47 U.S.C. §324
The term “communication desired” means telecommunications service, as defined in 47 U.S. Code §153.

Functionally equivalent services — 1996-TCA Conference Report
“When utilizing the term ‘‘functionally equivalent services’’ the conferees are referring only to personal wireless services as defined in this section that directly compete against one another.”

Personal wireless services — Title 47 U.S.C. § 332(c)(7)(C)(i)
“The term “personal wireless services” means commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services”;

Commercial mobile service — Title 47 U.S.C. § 332(d)(1)
“The term “commercial mobile service” means any mobile service (as defined in section 153 of this title) that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission.”

Unlicensed wireless service — Title 47 U.S.C. § 332(c)(7)(C)(iii)
“The term “unlicensed wireless service” means the offering of telecommunications services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct-to-home satellite services (as defined in section 303(v) of this title).”

Common carrier — Title 47 U.S.C. § 153(11)
"The term "common carrier" or "carrier" means any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or interstate or foreign radio transmission of energy, except where reference is made to common carriers not subject to this chapter; but a person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier."

Exchange access — Title 47 U.S.C. § 153(20)
"The term "exchange access" means the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services."

Wireless Telecommunications Facility (WTF)
The term "Wireless Telecommunications Facility (WTF)" means any facility consisting of one or more antennas and ancillary equipment that together can transmit electromagnetic power through the air for the purpose of providing wireless telecommunications services or personal wireless services, as defined in Title 47 U.S. Code §332(a)(7)(C)(i): "commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services."

Every Wireless Telecommunication Facility (WTF) of any size or any "G" is a facility designed and used for the purpose of transmitting, receiving, or relaying telecommunications service. WTFs include siting areas, transmission towers, support structures, antennas and ancillary equipment.

WTF antennas and other equipment in all configurations shall be designed, placed and colored to blend into the architectural detail and coloring of the host structures. Support towers or poles shall be painted a non-reflective color that best allows it to blend into the surroundings. The use of grays, blues, greens, dark bronze, browns or other site specific colors may be appropriate; however, each case should be evaluated individually.

Notes: Since the definition of a "Small Wireless Facility" in FCC Order 18-30 was vacated by the DC Circuit Court of Appeals, DC Circuit on August 9, 2019 (in the Ruling on *Case 18-1129, Keetoowah et al. v FCC*, for a "Small Wireless Facility" and was not subsequently properly-established in FCC Order 19-1024 in WT Docket No. 17-79, the FCC has no definition of a Small Wireless Telecommunications Facility (sWTF) and, therefore treats sWTFs as the same as WTFs of any size or any "G". Accordingly, Ms. Garnet Hanly, Division Chief of the Competition & Infrastructure Policy Division, FCC Wireless Telecommunications Bureau clarified the following on Oct 19, 2020:

> *"The FCC when it modified its rules [Title 47, C.F.R. §1.1312(e) by its October 2019 Order that became effective on Dec 5, 2019], after the DC Circuit issued its mandate [in its Ruling of Case No. 18-1129 Keetoowah v FCC] we took the position that we were reviewing Small Wireless Facilities as [Federal] undertakings and major Federal actions, pursuant to the DC Circuit decision and that is what we've been doing."*

Incorporate Definitions from 2005 Ninth Circuit Court of Appeals Ruling in *Metro-PCS vs. San Francisco*:

Prohibition Claim / D(2). Service Gap

*(a) Definition of "**Significant Gap**:" Having considered both the avowed policy goals of the 1996-TCA and the practical implications of the various constructional options, we elect to follow the district court's lead and formally adopt the First Circuit's rule that a significant gap in service (and thus an effective prohibition of service) exists whenever a provider is prevented from filling a significant gap in its own service coverage.*

*(b) Definition of "**Least Intrusive Means:**" The Second and Third Circuit "least intrusive" standard . . . allows for a meaningful comparison of alternative sites before the siting application process is needlessly repeated. It also gives providers an incentive to choose the least intrusive site in their first siting applications, and it promises to ultimately identify the best solution for the community, not merely the last one remaining after a series of application denials. For these reasons, we now adopt the "least intrusive means" standard and instruct the district court to apply this rule as necessary in its consideration of the prohibition issue.*

Section D. Local Preemption in Arizona HB.2365

This section clarifies the intent of Arizona HB. 2365, “Use of Public Highways by Wireless Providers”, with respect to local preemption.

Note: A clarification of the definition of “collocate” and “collocation” is contained in Appendix 1.

These sections are excerpted/adapted from HB.2365

From § 9-592(H) A wireless provider may do any of the following:

1. **Collocate** small wireless telecommunications facilities.

2. Construct, install, modify, mount, maintain, operate and replace utility poles that are associated with the **collocation** of small wireless telecommunications facilities along, across, on and under the right-of-way.

3. Construct, install, modify, mount, maintain, operate and replace monopoles that are **associated with the collocation of wireless facilities** along, across, on and under the right-of-way. The installation, modification and replacement of monopoles are subject to review under section 9-594 regardless of the height of the monopole.

From § 9-592(I) Subject to subsection k, paragraph 2, subdivision (c) of this section, a new, replacement or modified utility pole that is **associated with the collocation** of small wireless telecommunications facilities and that is installed in the right-of-way is not subject to zoning review and approval under section 9-594 if the utility pole does not exceed the greater of either:

1. Ten feet in height above the tallest existing utility pole, other than a utility pole supporting only wireless facilities, that is in place on the effective date of this section, that is located within five hundred feet of the new, replacement or modified utility pole and that is in the same right-of-way within the jurisdictional boundary of the authority, but not more than fifty feet above ground level.

2. Forty feet above ground level.

From § 9-592(J) New small wireless telecommunications facilities **collocated** on a utility pole or wireless support structure in the right-of-way are not subject to zoning review and approval if they do not extend more than ten feet above the utility pole or wireless support structure and do not exceed fifty feet above ground level.

From § 9-592(K) An authority may require an application under this section for the installation of new, replacement or modified utility poles associated with the **collocation** of small wireless telecommunications facilities. An authority shall approve an application **unless** the authority finds that the utility pole fails to comply with any of the following:

1. Applicable codes.

2. Local code provisions or regulations that concern any of the following:
   (a) **public safety**.
   (b) objective design standards and reasonable stealth and concealment requirements,
   (c) undergrounding requirements that prohibit the installation of new or the modification of existing utility poles or monopoles in a right-of-way without prior approval, if such requirements include a waiver, zoning or another process that addresses requests to install such new utility poles or monopoles or modify such existing utility poles or monopoles and do not prohibit the replacement of utility poles or monopoles.

3. Requirements that are imposed by a contract between an authority and a private property owner and that concern design standards applicable to utility poles in the right-of-way.

4. The authority's **public safety** and reasonable spacing requirements that concern the location of new utility poles in a right-of-way.

From § 9-592(L) An authority shall process applications under subsection K of this section in compliance with applicable law. If an authority fails to approve or deny an application within the time frame specified by applicable law, the application shall be deemed approved. Any application fee is subject to the requirements provided in section 9-593, subsection I. The total application fee, if allowed, may not exceed seven hundred fifty dollars.

From § 9-593(B). Except as provided in this section and sections 9-592, 9-594, 9-595, 9-597, 9-598 and 9-599, as applicable, an authority **may not** prohibit, **regulate** or charge for the collocation of small wireless telecommunications facilities.

Notes: per §9-592(K), local public safety regulations **are allowed** by HB.2365.

From § 9-593(C). Subject to this section and section 9-592, subsection j, a small wireless telecommunications facility is classified as a permitted use and is not subject to zoning review or approval if the small wireless telecommunications facility is **collocated** in a right-of-way in any zone.

From § 9-593(E). An application must include an attestation that the small wireless telecommunications facilities **will be collocated on the utility pole or wireless support structure** and that the small wireless telecommunications facilities will be operational for use by a wireless services provider to provide service within one hundred eighty days after the permit issuance date, unless the authority and the wireless provider agree to extend this period or a delay is caused by a lack of commercial power at the site.

From § 9-593(F). An authority:

1. Shall accept applications for, process and issue permits **to collocate** small wireless telecommunications facilities.

2. Within twenty days after receiving an application, shall determine and notify the applicant whether the application is complete. If an applicant is not notified within the twenty-day period, the application is deemed complete. If an application is incomplete, the authority must specifically identify the information missing from the application.

3. Shall process each application on a nondiscriminatory basis. A complete application is deemed approved if the authority fails to approve or deny the application within seventy-five days after receiving a complete application.

4. Shall approve an application **unless** the application **does not meet** the applicable codes, local code provisions or regulations that concern **public safety**, objective design standards for decorative utility poles or reasonable stealth and concealment requirements or **public safety and reasonable spacing requirements** concerning the location of ground-mounted equipment in a right-of-way. If an authority determines that applicable codes or local code provisions or regulations require that the utility pole or wireless support structure be replaced before the requested collocation, approval may be conditioned on such replacement of the utility pole or wireless support structure. The wireless provider's request for a replacement utility pole or wireless support structure will be processed pursuant to section 9-592.

5. If an application is denied, **shall document the basis for the denial**, including the specific code provisions, regulations or requirements on which the denial was based, and send the documentation to the applicant on or before the date that the application is denied. The applicant may cure the deficiencies identified by the authority and resubmit the application within thirty days after the denial without paying an additional application fee. The authority shall approve or deny the revised application within thirty days after receiving the revised application. Any subsequent review is limited to the deficiencies cited in the denial.

6. If an application includes multiple small wireless telecommunications facilities, may remove small wireless telecommunications facility collocations from the application and treat separately small wireless telecommunications facility collocations for which

incomplete information has been provided or that do not qualify for consolidated treatment or that are denied. The authority may issue separate permits **for each collocation** that is approved in a consolidated application.

From § 9-593(G). An authority may **not**:

1. Directly or indirectly require an applicant to perform services that are unrelated to the collocation for which approval is sought, such as in-kind contributions to the authority, including reserving fiber, conduit or pole space on the wireless provider's monopole or utility pole for the authority.

2. Require an applicant to provide more information to obtain a permit than the authority requires of a communications service provider that is not a wireless provider and that requests to attach facilities to a structure. **An authority may require** the applicant to certify that the small wireless facilities **to be collocated** comply with the federal communications commission's regulations concerning radio frequency emissions referenced in 47 united states code section 332(c)(7)(b)(iv). **[Δ: An authority may also require the applicant to certify that the small wireless facilities to be collocated comply with the private property and privacy rights guaranteed by Article 2 of the Arizona State Constitution and the 1996-TCA §324 Use of minimum power. In all circumstances all radio stations, shall use the minimum amount of power necessary to carry out the communication desired.]**

3. Institute, either expressly or de facto, a moratorium on filing, receiving or processing applications or issuing permits or other approvals, if any, for the collocation of a small wireless facility.

4. Require an application for routine maintenance or the replacement of small wireless facilities with small wireless facilities that are substantially similar or the same size or smaller. **An authority may require a permit** to work within a right-of-way for such activities, if applicable. A permit issued pursuant to this paragraph is subject to the requirements of this section. **[Δ: An authority may also require the permit requester certify that the small wireless facilities to be modified would still, post-modification, comply with the private property and privacy rights guaranteed by Article 2 of the Arizona State Constitution and the 1996-TCA §324 Use of minimum power. In all circumstances all radio stations, shall use the minimum amount of power necessary to carry out the communication desired.]**

From § 9-593(K). This article does not allow a person to **collocate** small wireless facilities on a **privately owned utility pole**, a privately owned wireless support structure or private property without the consent of the property owner.

From § 9-594(A). The following activities that take place inside of a right-of-way **are subject to this section and all of the authority's codes and regulations, including the authority's zoning codes** and other regulatory processes governing use of the rights-of-way, unless the activities are exempt from zoning review and approval under section 9-592, subsection i or j or section 9-593, subsection c:

1. The installation of **new** monopoles, utility poles or wireless facilities.

2. The **collocation** of wireless facilities.

From § 9-594(B). Notwithstanding any provision in this article to the contrary, the construction, installation, maintenance, modification, operation or replacement of a monopole or associated wireless facility in a right-of-way is **subject to all of the authority's codes and regulations**, including the authority's zoning codes and other regulatory processes governing use of the rights-of-way.

From § 9-594(D). An authority may **not**:

Notes: What is a "business decision for need" vs. a "technical decision for need" vs. compliance to Title 47 U.S. Code § 324 "In all circumstances all radio stations, shall use the minimum amount of power necessary to carry out the communication desired"? **Yes, the City can require the applicant to submit information to enforce compliance with Federal Acts, which means the City can require the last 18-months of Wireless carrier-specific, location-specific, and user-anonymized call completion records and dropped call records** in the intended search ring of the proposed Wireless Telecommunications Facility **to establish compliance with Federal law.**

The City can also require every six months a complete analysis of Signal Strength of each Carrier-specific frequency/band/channel throughout the City to be completed by an independent RF Engineer hired by the City and paid for by the operating Wireless carriers, based on a pro-rata share of maximum Effective Radiated Power (ERP) of all wireless antennas that are already installed in or around the City that transmit such ERP into the City.

1. Require an applicant to submit information about the applicant's business decisions regarding the need for the monopole, utility pole or wireless facilities.

2. Require an applicant to submit information about, or evaluate an applicant's business decisions regarding, the applicant's service, customer demand for service or quality of service.

3. Institute, either expressly or de facto, a moratorium on filing, receiving or processing applications or issuing decisions for modifications or installations that are not a permitted use.

From § 9-594(E). An authority, in addition to other rights the authority has under federal, state or local law, may:

1. Adopt reasonable requirements regarding the **appearance and concealment** of facilities, including those relating to materials used for arranging, screening or landscaping.

2. Adopt **setback or fall zone requirements** that are substantially similar to setback or fall zone requirements that are imposed on other types of commercial structures of a similar height.

3. **Charge an application fee**. Any application fee is subject to the requirements provided in section 9-593, subsection i. The total application fee, if allowed, may not exceed one thousand dollars for the modification of existing or the installation of new monopoles or utility poles or for the collocation of wireless facilities

4. Charge a rate or fee for the use of the right-of-way for the installation of a monopole and associated wireless facility that is limited to not more than the direct and actual costs of managing the right-of-way and that is not in the form of a franchise or other fee based on revenue or customer counts.

Notes: *A*fter what precedent is a "legislated presumption of reasonableness" — not based on a review of any facts — in § 9-594(F) advised as legal by any analysis? To quote from Federal Law, the 1996-TCA Conference Report that was recognized as a definitive expression of the **legislative intent of the 1996-TCA** in the 2005 U.S. Supreme Court Ruling in *Palos Verdes v Abrams:* by Justice Breyer, with whom Justice O'Connor, Justice Souter and Justice Ginsburg join, concurring:

"Under subsection (c)(7)(B)(ii), decisions are to be rendered in a reasonable period of time, taking into account the nature and scope of each request. If a request for placement of a personal wireless service facility involves a zoning variance or a public hearing or comment process, the time period for rendering a decision will be the usual period under such circumstances. ***It is not the intent of this provision to give preferential treatment to the personal wireless service industry in the processing of requests****, or to subject their requests to any but the generally applicable time frames for zoning decision."*

From § 9-594(F). An applicant's business decisions regarding the type and location of wireless facilities, monopoles or utility poles or the technology to be used are **presumed to be reasonable**. This presumption does not apply to the height or appearance of wireless facilities, monopoles or utility poles. An authority may consider the height of such structures in the zoning or other regulatory review, provided that the authority does not unreasonably discriminate between the applicant and other communications service providers that install wireless facilities.

From § 9-596(A). Subject to this article and applicable federal law, an **authority may exercise zoning, land use, planning and permitting authority** and the **authority's police power** within the authority's territorial boundaries, including for the installation, modification and replacement of wireless support structures and utility poles.

From § 9-596(B). An authority does not have any jurisdiction or authority over the design, engineering, construction, installation or operation of any small wireless telecommunications facility located in an interior structure or on the site of any campus, stadium or athletic facility that is not owned or controlled by the authority, other than to require compliance with applicable codes.

From § 9-596(C). This article does not authorize this state or any political subdivision of this state, including an authority, to require small wireless facility deployment or to regulate wireless services.

Notes: **But the 1996-TCA, instructs local authorities to regulate the operations of Wireless Telecommunications Facilities (WTFs)** to:

1. Fulfill the City's duties and obligations under cooperative federalism
2. Deliver actual public safety
3. Preserve the quiet enjoyment of streets.

The City does not have to derive its authority from § 9-596(C), it can derive its authority from the 1996-TCA and local laws.

From § 9-596(D). If an authority determines that a utility pole, monopole or wireless support structure of a wireless provider will be relocated to accommodate a public project, **[Δ: a City public safety need, the need to make reasonable accommodations under the ADA, or the need to protect the quiet enjoyment of streets]**, all wireless facilities deployed on such utility pole, monopole or wireless support structure shall be relocated at no cost to the authority.

Section E. Tucson WTF-Code—Proposed Chapter I Wireless Telecommunications Facilities Code

This section provides the new City of Tucson Municipal Wireless Telecommunications Facilities code.

Edit of City of Tucson Wireless Municipal Code in Chapter I “Communications” of Section 4.9.4 of the Tucson AZ Unified Development Code starts here:

Chapter I. **[Δ: Wireless Tele]communications [Δ: Facilities]**

1. Limited to a radio or television station, provided the buildings do not occupy more than 30% of the site and are set back at least 50 feet from any adjoining C-1 or more restrictive zoned property.

2. Provider ’s [Δ: Tele]communication Plan]. Each wireless communication provider shall provide a **[Δ: five year]** plan of its facilities to the City prior to any application for the installation of a tower or antennas. The plan shall cover the entire City and within three miles of the City limits. The plan shall include the following.

a. All of the provider ’s existing towers and **[Δ: full mfg./model no. and specs for all]** antennas **[Δ: and radios]**, by size and type, and their coverage areas **[Δ: Signal Strength for each Carrier-specific frequency/band/channel, metered, pre-permit issuance, by a neutral, third-party certified RF-Engineer hired by the City and paid for by the applicant]**.

b. All presently anticipated future service areas and the types of antennas, ~~heights~~ **[Δ: including for each antenna the Vertical offset from ground, Horizontal offset from closest building and maximum Power output]** desired for each of the service areas.

c. The various types of antennas and towers used by the provider to furnish service and when they are used. This includes drawings providing the sizes and shapes **[Δ: and specifications]** of the antennas and equipment and written materials describing their application.

d. The provider ’s policy direction for the mitigation and/or reduction of existing and proposed towers and antennas to avoid the negative proliferation of such facilities.

e. The provider ’s policy direction on the mitigation and/or the reduction of the negative visual impact created by existing or proposed towers and antennas, including any proposals to conceal or disguise such facilities designed to be architecturally and/or environmentally compatible with their surroundings.

f. The provider ’s policy direction on **collocation** of antennas on their own facilities or on ones from other providers or on other structures that provide the verticality required for the antennas. The policy shall also provide that the provider shall not enforce any requirement by an owner of property that would prohibit collocation.

g. Designation of an agent of the provider who is authorized to receive communications and notices pursuant to this section.

3. General. The following shall be applicable to all wireless communication requests.

a. Noninterference with Public Safety **[Δ: Communications].** No wireless communication transmitter, receptor, or other facility shall interfere with police, fire, and emergency public safety communications. The Director of Operations for the City is authorized to determine whether any transmitter, receptor, or other facility has interfered with public safety communications or is reasonably believed to be an imminent threat to public safety communications. Upon making that determination, the Director of Operations shall notify the Zoning Administrator and the provider responsible for that facility. The Zoning Administrator may obtain a temporary restraining order from the City Court with or without notice to enforce this section, provided a hearing is scheduled within five days of the Court’s order.

[Δ: a2. Noninterference with Public Safety and Quiet enjoyment of Streets. The City of Tucson has inherent local police power to determine the appropriate uses of land within its jurisdiction. That power includes the authority to establish aesthetic conditions for land use. Incommode the public means ‘to give inconvenience or distress to: disturb; to give trouble to; to disturb or molest in the quiet enjoyment of something.’ Travel is not the sole use of public roads; other uses may be incommoded beyond the obstruction of travel, including but not limited to generating noise or interference, causing negative health consequences, or creating public safety problems. All these impacts could disturb public road use or disturb its quiet enjoyment.]

b. All applications for ~~towers / antennas~~ **[Δ: Wireless Telecommunications Facilities (WTFs)]** will be reviewed by the Communications Division of the City of Tucson Operations Department and any other appropriate public safety department to ensure that the proposed installation of the ~~towers / antennas~~ **[Δ: WTFs]** will not interfere with any public safety, **[Δ: public safety communications]** or **[Δ: City construction, maintenance or other]** operations of the City. All applications shall include a certification by a registered or electrical engineer that each proposed antenna or ~~tower~~ **[Δ: WTF]** will be in compliance with **[Δ: all Federal Acts, including but not limited to the 1996 Telecommunications Act (1996-TCA), the Americans with Disability Act (ADA), the Fair Housing Amendments Act (FHAA) the National Environmental Policy Act (NEPA) the National Historical**

Preservation Act (NHPA) and all] standards established by the Federal Environmental Protection Agency, **[Δ: the Food and Drug Administration (FDA)]** and Federal Communications Commission (FCC), regarding potential **[Δ: and actual]** health and safety hazards. Submittal of information and review of the application by the Department of Operations shall be in accordance with all applicable ~~standards~~ **[Δ: laws and regulations]**.

c. Any antenna or tower for which the use is discontinued for six months or more shall be removed, and the property shall be restored to its condition prior to the location of the antenna or tower, all at the expense of the provider. The City may require financial assurances to ensure compliance with this provision.

d. No new towers shall be permitted within 400 feet of a designated Scenic Route or Gateway Route; within a designated Historic Preservation Zone (HPZ) or Environmental Resource Zone (ERZ); or on a protected peak or ridge as identified in a Hillside Development Zone (HDZ) except as follows:

(1) Communication towers and antennas shall be permitted on a protected peak or ridge that was used for such facilities prior to March 3, 1997, provided any new antennas and towers do not increase the area already disturbed and the placement of any new towers in such areas is approved as a special exception in accordance with Section 3.5.3, Zoning Examiner Legislative Procedure.

(2) New antennas may be permitted under Section 4.9.4.I.4 and.5 if they also comply with the purposes and review procedures of the overlay zone.

(3) New communication towers may be permitted on Gateway Routes in exceptional circumstances, provided there is no alternative and the placement is approved in accordance with Section 3.5.3, *Zoning Examiner Legislative Procedure*.

e. The dimensional provisions of Article 6 as applicable to towers and antennas shall be superseded by the provisions of Section 4.9.4.I.5 and by the height and setback provisions of Section 4.9.4.I.5, .6, and .7.

f. All proposed wireless communication towers and antennas shall be in compliance with all Federal Communications Commission (FCC) regulations **[Δ: that are consistent with the legislative intent of the 1996-Act as expressed in the plain language of the Act and in the 1996-Act's Conference Report]**, including those protecting the public health and those protecting historic districts.

g. Submittal Requirements. The following information is to be submitted with each application for the installation of a tower or antenna.

(1) An updated provider's Communication Plan, including any proposed changes in the service areas, antennas, towers, or policy direction;

(2) The proposed antennas/tower location, the type of antennas/tower, **[Δ: the mfg./model and full operating specs of the antennas, radios and other ancillary equipment]** and the proposed service area;

(3) ~~A statement of compliance~~ **[Δ: Substantial written evidence placed in the public record that proves that the project complies with requirements of all Federal Acts, listed in section 3(b) and with EPA, FDA and FCC regulations that are consistent with the legislative intent of the 1996-Act]** ~~with FCC~~ and specifically the areas listed in Section 3.5.4.20.C.6.;

(4) If the proposed installation involves a new **[Δ: WTF]** ~~tower~~, then the following information is required.

(a) The searched area for the proposed location;

(b) All existing structures, buildings, towers, etc., of greater than 20 feet in height located within the searched area; and,

(c) ~~A report with~~ **[Δ: Substantial written evidence placed in the public record that proves]** why collocation within the search area is not a viable alternative.
[Δ: (d) For installations in the public rights-of-way, provide access to the city-owned fiber-optic network as a public benefit and allow for fiber-optic lines to be extended all the way to the residences and businesses for broadband internet service via fiber to the premises (FTTP) technology.]

(5) Any technological or engineering requirements **[Δ: for telecommunications service]** which affect or limit the location, height, or construction of the proposed ~~tower / antennas~~ **[Δ: WTF]** should be included in ~~reports~~ **[Δ: the substantial written evidence placed in the public record.]**

4. The following requires **[Δ: Conditional use]** approval in accordance with Section 3.3.3, PDSD Director Approval Procedure. The PDSD Director may forward the request to the Design Review Board (DRB) for design review and recommendation.

a. ~~Wireless communication antennas~~ **[Δ : Wireless Telecommunications Facilities],** provided:

(1) The antennas are mounted on the wall or roof of a building, or concealed within an architectural or structural element of the building, not exceeding the permitted height of the building **[Δ: and sufficient metal shielding is installed and concealed on the roof and/or walls to ensure the effective radiated power from the any antennas attached to the building do not transmit into the building at levels higher than -85 dBm];**

(2) The antennas and tower, or architectural or structural element, are architecturally and/or environmentally compatible with the building and general area; and,

(3) Wall or roof mounted antennas are limited to six feet above the building, or to 15 feet if the antennas are mounted on top of the roof, the building is 40 feet high or taller, no more than six feet of the antennas can be seen from any point on the street which is a distance from the building equal to the height of the building **[Δ: and sufficient metal shielding is installed and concealed on the roof and/or walls to ensure effective radiated power from the antennas does not transmit into the building at levels higher than -85 dBm, as metered by a neutral, third-party certified RF-Engineer hired by the City and paid for by the applicant]**.

b. ~~Wireless communication antennas~~ **[Δ: Wireless Telecommunications Facilities]**, provided:

(1) The antennas are mounted on an existing structure within public rights-of-way or public property;

(2) The antennas are architecturally and/or environmentally compatible with the structure and general area;

(3) The existing structure may be extended up to ten feet in height to allow for the placement and architectural treatment of the new antennas; and,

(4) The new antennas do not substantially increase the visual mass of the existing facility.

(5) **[Δ: All WTFs must comply]** with all federal and state laws and regulations, particularly Title 47 U.S. Code §324) Use of minimum power: “In all circumstances . . . all radio stations, . . . **shall use the minimum amount of power** necessary to carry out the communication desired.”

(6) **[Δ: The City must use** an independent Professional Electrical Engineer or a certified RF-EMR professional to determine the **maximum input power allowed (“MIPA”)**, by considering three key parameters of the WTF: **Vertical** offset (# of feet from the ground to the lower edge of the lowest antenna), **Horizontal** offset (# of feet from the lower edge of the lowest antenna to an area accessible to people) and **Power** (the maximum allowed input power that would result in a signal strength no higher than -85 dBm for any single Carrier-specific frequency/band/channel transmitted to any area accessible to people).

(7) **[Δ: The City shall monitor MIPA continuously]** by installing a corresponding City-controlled fuse on each WTF and institute a three-strikes-and-you’re out program. The City will give each applicant three

chances to comply with the MIPA defined by the Professional Electrical Engineer or RF-EMR professional in Section 4(b)(6) that will ensure signal strength will be no higher than -85 dBm for any single Carrier-specific frequency/band/channel transmitted to any area accessible to people. Each replacement of the fuse will result in a **policing fee charged to the applicant**: $25,000 for first offense and fuse replacement, $50,000 for second offense and fuse replacement and $100,000 for third offense and permit loss.

(8) **[Δ: Wireless Antenna Retrofit Test]** to rid Tucson of the **overpowered WTFs** that have been constructed throughout the City from 2017 to 2021, many of which are ruining the quiet enjoyment of Tucson's streets, violating residents' inalienable rights to privacy and unjustly (and unnecessarily) lowering homeowners' property values.

The WTF-Report card would be issued semi-annually, as a result of a Comprehensive Wireless Signal Strength Test to be conducted every six months by an independent RF Engineer, who will log, second-by-second, the Wireless signal-strength levels in dBm (decibel-milliWatts) of every carrier-specific licensed and unlicensed wireless frequency that is being transmitted to the streets of the City.

The full data file for each Wireless Antenna Retrofit Test (signal strength test) will be placed in the City's public record for anyone to view, analyze and verify and will serve as the basis for local decisions regarding

1. How to **best retrofit existing overpowered WTFs** with smaller and less-powerful WTF antennas and equipment in order to simultaneously provide sufficient telecommunications service **and** preserve the quiet enjoyment of streets
2. How to right-size the antennas and equipment when issuing any new permits to place, construct, modify or operate future WTFs.
3. Specifically, the City will use WTF-Report Card data to determine the City-acceptable size and maximum power output of WTF antennas, radios and ancillary equipment for any WTF of any size or any "G" that is operating within the City to ensure that each achieves an "A" or "B" grade in Table 2, below.
4. In any area accessible to people, if any Carrier-specific licensed frequency/band/channel achieves a grade of 'A' or 'B' for Signal Strength, in the table, below then the City can approve a WTF application; otherwise the City can deny the WTF application for excessive Effective Radiated Power.

Table 2: Wireless Carrier Signal Strength Report Card

(for any Carrier-specific licensed voice frequency/band/channel)

Grade	Signal Strength	Action
A - Excellent	-90 dBm to -125 dBm	**Approve**
B - Good	-80 dBm to -89 dBm	**Approve**
C - Fair	-70 dBm to -79 dBm	**Retrofit**
D - Poor	-60 dBm to -69 dBm	**Retrofit**
F - Failing	Exceeds -60 dBm	**Retrofit**

[1]

The Cost for each Wireless Antenna Retrofit Test (signal strength test) would be paid by antenna operators, as a policing fee, on a prorated basis: apportioned by the share of each Wireless Company's antenna capabilities, meaning the percentage of the sum of the maximum Effective Radiated Power that could be transmitted by each antenna reaching the parcels that are within the City's borders.

5. The following requires approval in accordance with Section 3.3.4, ~~100'~~ **[Δ: 1,000]** foot Notice Procedure. The PDSD Director shall forward the request to the Design Review Board (DRB) for design review and recommendation.

a. Wireless **[Δ: Telecommunications Facility]** antennas, provided:

(1) The antennas are mounted on or within a new tower or structure in a manner that conceals or disguises the antennas or new tower. For purposes of this subsection, painting may be a method of concealing or disguising a tower;

(2) The tower, antennas, and structure are architecturally and/or environmentally compatible with the surrounding structure(s) and general area;

(3) A new tower is set back at least two times the height of the tower structure from the boundary of any other property zoned residential or office; and,

(4) The tower and antennas are 50 feet or less in height.

b. Wireless **[Δ: Telecommunications Facility]** antennas, provided:

(1) The antennas are collocated on an existing wireless communication tower;

(2) The antennas and tower are architecturally and/or environmentally compatible with the surrounding structure(s) and general area;

(3) The existing tower is set back at least the height of the tower structure from the boundary of any other property zoned residential or office;

(4) The existing tower may be replaced and/or extended up to six feet in height to allow for the placement and architectural treatment of the new antennas; and,

(5) The maximum extension of the new antennas and associated attachments shall not exceed 36 inches as measured perpendicular to the tower at the point of attachment.

c. Wireless **[Δ: Telecommunications Facility]** antennas, provided:

(1) The antennas are mounted on a new tower or an existing structure in a manner that is designed or painted so as to minimize their visual impact;

(2) The tower and antenna are architecturally and/or environmentally compatible with the existing structures and general area;

(3) The tower is set back a minimum of 500 feet from nonindustrially zoned property except where the nonindustrially zoned property is used as an interstate highway or railroad; and,

(4) The tower and antennas are 80 feet or less in height.

6. The following requires approval as a special exception in accordance with Section 3.4.3, Zoning Examiner Special Exception Procedure. The Zoning Examiner may forward the request to the Design Review Board (DRB) for design review and recommendation.

a. Wireless **[Δ: Telecommunications Facility]** antennas, provided:

(1) The antennas are mounted on a new tower and the tower and antennas are concealed or disguised, or the antennas are collocated on an existing structure;

(2) The tower and antennas are architecturally and/or environmentally compatible with the surrounding structure(s) and general area;

(3) A new tower is set back at least two times the height of the structure from the boundary of any property zoned residential or office; and,

(4) The tower and antennas are 50 feet or less in height.

b. Wireless **[Δ: Telecommunications Facility]** antennas, provided:

(1) The antennas are mounted on a new tower and the tower and antennas are concealed or disguised, or the antennas are collocated on an existing structure;

(2) The tower and antennas are architecturally and/or environmentally compatible with the surrounding structure(s) and general area;

(3) A new tower is set back at least two times the height of the structure from the boundary of any property zoned residential or office; and,

(4) The tower and antennas are 80 feet or less in height.

7. The following requires approval as a special exception in accordance with Section 3.4.4, Mayor and Council Special Exception Procedure. The Mayor and Council may forward the request to the Design Review Board (DRB) for design review and recommendation.

a. Wireless **[Δ: Telecommunications Facility]** antennas, provided:

(1) The tower or antennas are not permitted by other provisions of this section;

(2) New towers require a minimum separation of one mile from any existing tower, regardless of ownership, unless documentation establishes that no practical alternative exists;

(3) All appropriate measures shall be taken to conceal or disguise the tower and antenna from external view;

(4) All appropriate measures shall be taken to reduce the negative proliferation of visible towers and antennas by the collocation of new antennas on existing towers or with the facilities of other providers that are located or planned for development within the proposed service area; and,

(5) Notice shall be provided to all agents designated, in accordance with Section 4.9.4.I.2.g, at least 15 days prior to the date of the public hearing before the Zoning Examiner.

Appendix I. Clarifying the Meaning of the Words "Collocate" and "Collocation"

1. **L:** co-locate : to place (two or more units) close together so as to share common facilities
2. **LL:** collocate : to set or arrange in a place or position

In Wireless Telecommunications Facility vernacular, virtually all state legislators, City Council members and judges well-understand the long-held meaning of co-locate *"to place (two or more units) close together so as to share common facilities".* The whole point was to prevent unnecessary, redundant, ugly infrastructure poles from littering the landscape of residential neighborhoods, as they are right now in Tucson. The City of Tucson must put its collective foot down and enforce co-location.

- **Pre-2017** example of co-location: place a second (or third) set of antennas on an existing structure that **already has** antennas on it.
- **Post-2017** example, reflecting obvious attempt to redefine co-location as a special favor to the wireless industry: place a set of antennas **on any existing structure** — **whether or not** it has antennas already on it.

However, such deviation is not consistent with the legislative intent of the 1996-TCA:

- 1996-TCA Conference Report: "It is not the intent of this provision to give preferential treatment to the personal wireless service industry"

Correspondingly, the FCC agrees that collocation means co-location:

Title 47 Code of Federal Regulations
47 CFR §1.6002 — Definitions.
(g) **Collocation**, consistent with §1.1320(d) and the Nationwide Programmatic Agreement (NPA) for the Collocation of Wireless Antennas, appendix B of this part, section I.B, means –

(1) Mounting or installing an antenna facility on a **pre-existing structure**; and/or
(2) Modifying a structure for the purpose of mounting or installing an antenna facility on that structure.
(3) The definition of "collocation" in §1.6100(b)(2) applies to the term as used in that section.

47 CFR §1.1320(d) — Definitions.
Collocation means the mounting or installation of an antenna **on an existing tower, building or structure** for the purpose of transmitting and/or receiving radio frequency signals for communications purposes, **whether or not** there is an existing antenna on the structure.

[82 FR 58758, **Dec. 14, 2017**]

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47 CFR §1.6100(b)(2) — Definitions.
§ 1.6100 Wireless Facility Modifications.

- (b) Definitions . . .
    - (2) **Collocation.** The mounting or installation of transmission equipment on an eligible support structure for the purpose of transmitting and/or receiving radio frequency signals for communications purposes.

[80 FR 1269, Jan. 8, 2015. Redesignated and amended at 83 FR 51886, Oct. 15, 2018; 85 FR 78018, **Dec. 3, 2020**]

The attempt to redefine "collocation" is not consistent with the stated FCC definitions nor the 1996 TCA Conference report. Collocation is required for all WTFs, and, when regarding monopoles, all of the wireless facilities must be mounted on the pole or contained inside of the pole. *Therefore*, applications requesting to place WTF infrastructure "adjacent to" existing infrastructure must be denied.

Appendix II. Understanding the Legislative Intent of the 1996 Telecommunications Act (1996-TCA)

From the 1996-TCA Conference Report, recognized as Federal Law in 2005 U.S. Supreme Court Ruling in Palos Verdes v. Abrams:

- *"It is **not the intent** of this provision to give preferential treatment to the personal wireless service industry"*

- *"When utilizing the term "**functionally equivalent services**" the conferees are referring **only** to personal wireless services as defined in this section that directly compete against one another."*

- *"The **conferees also intend** that the phrase "unreasonably discriminate among providers of functionally equivalent services" will **provide localities with the flexibility** to treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements even if those facilities provide functionally equivalent services."*

- *"For example, the **conferees do not intend** that if a State or local government grants a permit in a commercial district, it must also grant a permit for a competitor's **50-foot tower in a residential district**".*