

REPORT ON SITING
WIRELESS COMMUNICATIONS FACILITIES

Presented to the

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By

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I. INTRODUCTION

The Intergovernmental Advisory Committee (“IAC”) to the Federal Communications Commission (“Commission”) is pleased to present this paper on the status of *Siting Wireless Communications Facilities* to provide helpful and factual information to all local, state and tribal governments, to the wireless industry and to all interested parties, about the status of siting wireless communications facilities in our communities. Additionally, it is the IAC’s intent to provide input to the Commission on the state of wireless facility siting in the United States, including what is working and what can be improved. Finally, the IAC believes that this paper can contribute to the educational materials available to all interested parties about the appropriate federal, state, local and tribal roles in wireless facility siting.¹

Almost every presentation relating to wireless broadband today includes statements about the evolving technologies, the explosion in demand, the need for additional spectrum and bandwidth, all of which necessitate the expansion of existing wireless communications infrastructure. The good news is that the process for siting wireless communications facilities is not broken. Indeed, with relatively few exceptions since competition was introduced in the wireless industry with the passage of the 1996 Telecommunications Act, the wireless industry and governmental entities with land use and right-of-way authority have worked quite well to facilitate the robust wireless broadband networks that we enjoy today. Both industry and Commission data suggests that the site applications, whether they be for new sites or collocations, do not focus on filling in gaps in coverage, but rather, are seeking to upgrade equipment, incorporate new technologies and expand network capacity.

While this paper will provide some information on federal, state and tribal issues, approvals for the majority of the wireless communications facilities sites throughout the United States have been at the local government level and, therefore, the focus of this paper will be addressing local processes. Most local governments and industry applicants work well together to process applications in a manner that satisfies both industry and community concerns. There are approximately 40,000 local governments nationwide with land use authority, varying greatly from local governments with as little as a few dozen residents to those with millions of residents. There are likely hundreds of wireless service providers and members of the wireless infrastructure industry that seek to install wireless facilities, also varying greatly from wireless services providers with millions of customers to those that serve only one property, and from infrastructure owners with millions of facilities to those with only a handful.² The vast majority

¹ This paper does not address approvals for constructing facilities used to provide Wi-Fi services, even though millions of Americans and businesses obviously obtain wireless communications, video and broadband services through Wi-Fi facilities as opposed to wireless communications facilities. Nor does it address state, local, and tribal government use of their own property in a proprietary capacity or facilities sited initially for public safety communications facilities.

² The IAC is not aware if the Commission has information with respect to the number and variety of industry members that own wireless facilities or local governments that exercise land use authority.

of these communities and industry members work well together to complete the wireless siting process and locate wireless facilities in an efficient and timely manner. The number of disputes between industry members and local governments has been relatively small. It is the IAC's goal that this examination of challenges that have been addressed effectively by communities and industry members throughout the United States will generate more creative ways to collaborate among all interested parties in the wireless communications facilities siting process.

A. Commission's Prioritization of Wireless Facilities Developments

In an effort to speed up the process for constructing wireless communications facilities and to prioritize development applications for such facilities over other development applications, the Commission previously imposed "shot clocks" in certain situations, with remedies for violations. In 2009, the Commission adopted a shot clock creating a presumption that local governments that did not act on applications for new wireless facilities within 150 days and applications for collocation of wireless facilities within 90 days would be deemed to be unreasonable, thus allowing applicants to seek a judicial remedy requiring a decision.³ The IAC is unaware of any other type development application that has a specific timeframe established in federal law.

More recently, in 2014, the Commission adopted rules interpreting Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, which requires collocation applications which do not involve a substantial change in the physical dimensions of the facility to be mandatorily adopted.⁴ The shot clock rules require applications for these eligible facilities be "deemed approved" if not acted upon within sixty (60) days. Many local governments did not believe that federal shot clock rules were necessary or helpful to create faster, more efficient deployment. The IAC can state with confidence that the vast majority of local governments have adapted well to these rules and have modified their own codes and permitting processes to accommodate the federal rule requirements. Local governments around the country are well aware of the shot clocks that apply to applications for the development of wireless facilities and afford the necessary resources so as to be to prioritize actions on such applications and satisfy the required timeframes. There are some in the wireless industry who continue to criticize local government and, despite these federal restrictions on traditional areas of local control, continue to advocate for further standardized rules preempting local authority. As described in this report, the IAC asserts that the evidence does not support a claim for further federal, or state, restrictions of local authority in connection with the siting of wireless communications facilities.⁵

³ Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(b) to Ensure Timely Siting Review & to Preempt Under Section 253 State & Local Ordinances That Classify All Wireless Siting Proposals As Requiring A Variance, Declaratory Ruling, 24 FCC Rcd 13994 ¶¶27-53 (2009).

⁴ Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies, Report and Order, 29 FCC Rcd 12865 ¶¶ 243-284 (2014).

⁵ In addition to the FCC, several States have adopted regulations and "shot clocks" on local governments' processing of development applications for wireless facilities. See e.g., Section 365.172(12)9d)(1), *Florida Statutes* (adopting shot clock in 2005).

B. The Importance of Local Determination

As can be expected, priorities and needs vary greatly by locality. As such, a "one size fits all" approach would never work for processing land use development applications. A "one size fits all approach" certainly is not the best way to ensure harmonious and efficient buildout of wireless communications facilities.



This multicarrier site in Irvine, CA would not be appropriate in an urban area



This T-Mobile flagpole in an urban area would not be appropriate for rural areas.



These 2 sites would not be appropriate in the same community.⁶

For this reason, the IAC declines to submit, or to suggest that the Commission adopt, a model application or a "one size fits all" approach to siting. Instead, we suggest a series of principles and approaches that can be used by industry members and localities alike to plan for wireless facilities deployment.

Planning for wireless infrastructure and a community's growth around such structures is important particularly since such facilities often remain in place for 25 to 50 or more years.⁷ A vacant field today, may be a lake surrounded by a business park or homes in 20 years. Local governments must make informed, long-term decisions with respect to such facilities. Industry members are encouraged to educate themselves as to the details of the local regulatory environment, prior to making specific site applications.

Of primary importance is for the industry and localities to exchange information about their respective plans for wireless broadband infrastructure and other plans for areas around potential sites. For example, on the locality side, this may mean issuing requests for information, holding a series of information-gathering hearings, including such facilities in future land use

⁶ All pictures courtesy of www.celltowerphotos.com. Copyright © 1997-2016 CellTowerSites.com. Used with permission.

⁷ Typically, ground leases for such sites afford the wireless facility owner a minimum of 25 or 30 year terms, with options to terminate without cause.

and comprehensive plans, or simply publishing a locality's goals and expectations regarding wireless broadband deployment. On the industry side, it is important for industry members to meet with local governments to explain build needs and plans, and to offer to work with the locality for creative build solutions. Industry should not be expected to provide proprietary information on specific building sites. At the same time, industry should be willing to provide information on general geographic areas where it hopes to develop facilities, so as local governments hear from other potential applicants in these areas, it can facilitate discussion between providers and encourage collocation or perhaps suggest locations that would work well for the community.⁸

Many IAC member communities have been working through wireless transition issues and are able to share their thoughts and priorities with the industry. In many instances, IAC member communities see benefits in deployment plans that incorporate the following: multi-tenant poles, sharing of infrastructure in a safe and aesthetic manner, identification of existing siting for planning and collocation purposes, removal of old poles when new multi-tenant poles are built, public safety, energy-saving, resiliency (i.e., limited aerial build), security, ubiquitous coverage, revenue, cost savings and excellent, scalable design. The IAC is also aware of local jurisdictions that have modified their land use and permitting codes to address wireless infrastructure issues. It is often helpful to invite interested parties, including the public and the wireless industry, to provide feedback on regulatory changes before they are brought to local decision makers for final action.

Finally, the IAC believes that a helpful approach should include more information about how the wireless provider and infrastructure industries are changing, what its needs are, and how local, state, tribal and federal government entities are addressing siting issues as part of their broader obligations. The Tenth Amendment to the United States Constitution and the traditions of our nation recognize the importance of local control. Despite the diversity in the wide variety of interests municipalities and counties must address, local governments have been successful in siting housing, shopping, heavy industrial business, parks and recreation facilities, water and sewer infrastructure, gas and electric utilities, schools, healthcare facilities and countless other critically important developments, including wireline facilities infrastructure for voice, video and broadband, that together make up the foundation of our communities. Wireless communications facilities developments are one of the many important infrastructure deployment issues that local governments' staff and decision makers address.⁹ Overall, they are doing it very well. This paper will describe some of those efforts.

⁸ Several states and local governments have adopted legislation that calls for local governments and industry members to work together to locate wireless facilities in particularly challenging zoning areas, such as single family residential neighborhoods. See Section 365.172(13)(b)(3), Florida Statutes (wireless provider and local government shall cooperate to determine an appropriate location for a wireless communications facility of an appropriate design within the residential area or zone).

⁹ Many local governments maintain information about pending development and permit applications on their websites. See e.g. <http://sfgov.org/open-gov>. Thus, it would be easy for the Commission and industry members to review the varied applications facing a local government at any time.

II. EFFECTIVE METHODS

A. Application Processes for Siting Approval

The local regulatory siting process begins typically with an application to the siting authority. The effectiveness of the siting process, including the timing of a final decision, is significantly impacted by the application process. While the IAC considered whether to recommend a “model” application, it decided overwhelmingly against this. Just as each siting authority has different siting requirements, siting applications should be tailored to such local requirements and/or state laws.

In addition, several local governments and industry members, even before the actual application, commence the development process with a pre-application meeting. In some cases, local governments require this depending on the type of development, and several wireless industry members, either on a voluntary basis or as part of their standard mandated procedures, pursue such pre-application meetings. This enables both the applicant and local government to ask questions that will make the application process more efficient and result in saving both the local government and industry applicant resources and costs. It also allows the applicant and the local government to discuss information called for in the application and requests that may not be relevant for the applicant’s technology or plans. Further, this allows both parties to avoid surprises. Particularly with the very short time frames for reviewing application materials for completeness established by the shot clock,¹⁰ the IAC commends local governments and industry members that utilize a pre-application meeting as part of their application process. Local governments and industry members that do not currently pursue these practices are encouraged to do so.

With respect to actual applications, again while there should not be a standard application form for all applicants or local governments, common sets of information will generally exist across application forms. These include conventional development controls based on zoning districts such as setbacks, height limitations, lot coverage, distances from certain uses and/or districts, materials, lighting and accessory structures. They also include pertinent information about local review procedures, including public notification and/or hearing(s). They may also include technical data about coverage areas, requirements for photo simulations of proposed sites, collocation opportunities, and compliance with life-safety codes.

Based on these unique local considerations, siting authorities will need to tailor this information into the kind of applications that work best given their local and state rules. Industry applicants can ensure a quicker process by providing all required information upon initial application, thereby making the application complete and subject to federal timing rules.

¹⁰ The FCC allowed 30 days to review an application and to notify an applicant if the application is complete or to request additional information. If subsequent information is then submitted, the local government has 10 days to notify an applicant that the application is still not complete and further information is required.

B. Examples of Jurisdictional Processes and Practices

IAC member communities represent a wide variety of localities that all approach siting differently. In some states, legislation has been passed impacting local authority.¹¹ In the remaining states, some or all authority remains completely in the realm of local authority. Some types of siting decisions require public notice, publication, public hearings and quasi-judicial processes, with the ultimate decisions made by elected or appointed bodies. In contrast, other facilities may require only administrative or staff approval. Regardless of regulatory frameworks, the driving factor for industry members is not what the regulations are, but rather where the market is located.

The IAC solicited and received feedback from small, medium and large jurisdictions and associations at the national, state and local levels. The jurisdictions and organizations that submitted input include the following: Atlanta, Georgia; the Colorado Communications and Utility Alliance; Connecticut; Houston, Texas; Montgomery County, Maryland; Pasco, Washington, San Antonio, Texas; San Francisco, California¹²; San Leandro, California; PCIA¹³; and the National Association of Regulatory Utility Commissioners (NARUC). In addition, IAC members called upon their own experiences and knowledge of their respective states, local and tribal governments.

Generally, these associations, jurisdictions and IAC members were in agreement that the processes are working. However, some jurisdictions suggest that while their tower and antenna siting processes may be thriving, they need greater flexibility regarding conditions of approval to address situations such as late-filed applications, incomplete applications and aesthetic concerns. Below are summaries from some of the jurisdictions about highlighting the various processes that have been implemented to facilitate siting. While these anecdotal summaries are not meant to be exhaustive, they illustrate the varied approaches to siting and demonstrate how these processes can and often do work well.

Atlanta, Georgia¹⁴

In the City of Atlanta, the level of review and approval of new wireless facilities depends on the zoning district and facility characteristics.

¹¹ *E.g.* Broadband Deployment: Legal Issues for Siting of Wireless Communications Facilities and Amendments to the Pole Attachment Rule, prepared by Kathleen Ann Ruane, Legislative Attorney, in 2013, summarizing various federal and several states' statutes re siting, http://www.ipmall.info/hosted_resources/crs/RS20783_130411.pdf; New Hampshire Office of Energy and Planning online guide with key issues for communities to consider if they choose to regulate the development of wireless facilities, <https://www.nh.gov/oep/planning/resources/wireless/issues.htm>.

¹² San Francisco provided a presentation entitled "A City Planner's Perspective on Wireless Siting," which includes a discussion of issues with California proposed AB 57 that did not pass. A complete copy of the presentation is available.

¹³ PCIA has recently changed its name to the Wireless Infrastructure Association (WIA).

¹⁴ Atlanta, GA is the capital of and the most populous city in Georgia, with an estimated 2015 population of 463,878. Atlanta is the cultural and economic center of the Atlanta metropolitan area, home to 5,522,942 people and the ninth largest metropolitan area in the United States.

In residential and low-density commercial districts, the planning department reviews and approves new wireless facilities of 70 feet or less in height or those that deploy an “alternative design” (trees, bell towers, steeples, clock towers, flag poles, etc.) not exceeding 200 feet in height. A special use permit from the city council is required for new wireless facilities greater than 70 feet in height that do not deploy an alternative design.

In high-density commercial and industrial districts, new wireless facilities are permitted as of right (i.e. without any zoning approval) for: (i) alternative design regardless of height; (ii) when located at least 200 feet away from a residential district or use; or (iii) greater than 200 feet in height when located at least a commensurate distance from a residential district or use. The planning department reviews and approves new wireless facilities if they deploy alternative design not exceeding 200 feet in height. A special use permit from the city council is required for new wireless facilities within 200 feet from residential districts or for new towers greater than 200 feet in height when located a distance which is less than the height of the tower from a residential district or use.

From January 2015 to the present, the planning department approved eleven (11) new wireless facility permits while the city council approved both of the new wireless facilities that required special use permits. During the same timeframe, the building department issued, without any need for preliminary zoning approvals, 347 building permits for collocations and/or modifications to existing wireless facilities. For this latter category, “[t]he Mobile Broadband Infrastructure Leads to Development (“BILD”) Act”¹⁵ requires municipalities and counties to streamline reviews for collocations and modifications of previously approved wireless facilities by precluding any further zoning review aside from that typically required for the issuance of building or electrical permits.

Colorado Communications and Utility Alliance¹⁶

Over the years, the Colorado Communications and Utility Alliance (“CCUA”) has found it effective to prepare model agreements, including franchises and ordinances that can be shared with its members throughout the state. There is no mandate that any community must use all or even part of these model documents. They serve as educational materials that reflect both industry and local government input. This results in contracts and regulations that have already been vetted by many of the communications and utility industry entities that operate in CCUA member communities. In response to the Commission’s collocation rules interpreting Section 6409, CCUA took the model code provisions that had been worked on collaboratively by the National Association of Telecommunications Officers and Advisors (“NATOA”), the National League of Cities (“NLC”), the National Association of Counties (“NACO”), PCIA and CTIA, and transformed it into a Colorado specific model code implementing the Section 6409 rules. CCUA also developed a Colorado model application form, intended to provide all of the necessary information to allow local governments to know in a fairly short period of time for

¹⁵ GA. CODE ANN. §§ 36-66B-1 through 7 (2014).

¹⁶ The Colorado Communications and Utility Alliance is a statewide organization comprised of local governments throughout Colorado, currently with 40 members, which works together on a wide variety of communications, utility and rights-of-way issues. Its members represent the largest urban and suburban communities in the state, as well as some of the smallest rural communities in the Rocky Mountain West.

review, whether an application is in fact an eligible facilities request entitled to mandatory collocation approval. A number of CCUA jurisdictions have adopted their own versions of these code provisions and the application form. CCUA's monthly meetings provide industry an opportunity to participate, and since adoption of these model siting documents, neither CCUA members nor its industry partners in Colorado have indicated any siting problems.

CCUA also recently developed a Colorado model agreement for the siting of small cells in public rights-of-way. Colorado state statute provides some limitations on what local governments may and may not do in connection with the siting of communications facilities in the public rights-of-way, while preserving most local government police power. The model agreement for the siting of small cells in public rights-of-way incorporates local regulatory authority under state law, while providing industry applicants a form that is readily available, does not require extensive time to negotiate, and facilitates efficient deployment, while protecting the public interest.

Connecticut¹⁷

Balancing the need for telecommunications services, public safety and community design concerns, the Connecticut Department of Public Utility Control ("DPUC") implemented common-sense regulations for siting small cell wireless telecommunications facilities in the public rights-of-way. As a result of recommendations from service providers and infrastructure owners, carriers and commercial mobile radio service ("CMRS") providers enter into commercial pole attachment agreements to negotiate and resolve issues among themselves. Contested issues can be resolved by the DPUC. Connecticut's pole attachment rulings mirror federal policies and utility pole attachment processes in the FCC's broadband deployment initiatives. Moreover, the DPUC has committed to continued enforcement of more efficient and effective utility pole attachment agreements and to providing non-discriminatory, equitable access to the public rights-of-way without compromising the safety of the public and utility workers.

In addition to pole attachment agreements, CMRS providers are required to submit their construction plans to the DPUC for approval 90 days prior to commencement of construction. The construction plan shall include, but not be limited to: 1) the specific location of the proposed facilities; 2) a detailed description of the proposed facilities, including current National Electric Safety Code, National Electric Code and all other applicable construction standards; 3) the purpose, intended use and need for the proposed facilities; and 4) proposed specifications, plans and procedures to protect the public safety during the construction, operation and maintenance of the proposed facilities. The DPUC is authorized to require additional information it deems necessary to ensure that the proposed facilities meet appropriate design and construction standards and specifications to protect the public safety.

¹⁷ Connecticut is the southernmost state in the New England region of the United States. Connecticut is also often grouped along with New York and New Jersey as the Tri-State area. Connecticut is the third smallest state by area, the 29th most populous state with an estimated population of 3.59 million people, and the fourth most densely populated of the 50 United States.

When the proposed siting of small cell wireless telecommunications facilities is a utility pole in the public rights-of-way, approval must be sought from the Public Utility Regulatory Authority (the “Authority”). In addition to the DPUC requirements, prior to obtaining authorization to site small cell wireless telecommunications facilities on a utility pole, the utility must submit proof to the Authority that it provided prior notice to and obtained consent of any property owner whose property is within 140 feet of the utility pole upon which equipment will be located. Adjoining property owners have thirty (30) days from receipt of notice of the proposed siting to submit objections to the Authority. If no timely objections are submitted to the Authority, the installing company may presume that the adjoining proprietor is not concerned with the proposed location and ask the Authority to approve the construction of the proposed facility.

Houston, Texas¹⁸

The City of Houston’s processes and experiences in developing and implementing processes for the installation of wireless siting facilities and small cell facilities have been positive and efficient.

Houston has developed a master right-of-way agreement that it has used with several of the nation’s leading wireless providers. Houston has found that this master agreement has been an effective tool to promote smart deployment and, when necessary, allow room for creative solutions between government and industry.

Although Houston has only recently begun to deploy small cell technology, its processes have yielded positive results. Houston’s master right-of-way agreements require companies to consult with the boards of the Tax Increment Reinvestment Zone (“TIRZ”) and Management Districts in the city prior to submitting an application for use of a right-of-way location which allows the parties to resolve any potential issues before companies invest time and money into a project. The companies have reported to the City of Houston that collaborating with the TIRZ and Management Districts has saved time, effort and expense in the deployment of projects. For example, because of the collaboration with TIRZ, some of the wireless companies avoided spending significant amounts of time and money preparing and installing facilities that would have to be moved one year later due to planned street work. Coordination with the TIRZ and district boards has also resulted in the facilities design being incorporated with the city’s existing aesthetic design.

Houston’s master right-of-way agreement also requires wireless companies to submit an application for location and plan review that includes a detailed drawing of the proposed installation site. This process promotes smart deployment that allows Houston and the companies to work together to resolve any issues regarding the proposed site and protects the public health and safety, helps the companies avoid conflicts with any existing facilities or structures in the rights-of-way and supports compliance with the Americans with Disabilities Act. Finally, Houston’s master right-of-way agreement supports creative solutions to issues that

¹⁸ Houston, TX is the most populous city in Texas, the fourth-most populous city in the United States and the largest city in the southern United States. It is the seat of Harris County and has a 2015 census-estimated population of 2.296 million within a land area of 599.6 square miles.

may hinder a project. While the agreement has distance and camouflage requirements to conceal the presence of wireless facilities, it permits companies to apply to a designated city official for exceptions.

San Antonio, Texas¹⁹

The City of San Antonio was recently highlighted in a webinar jointly hosted by the FCC Wireless Telecommunications Bureau and NATOA on May 3, 2016, to discuss Distributed Antenna Systems and Small Cell deployments in cities and other public uses, such as hospitals and venues. San Antonio spent several months working with Verizon to establish a Right-Of-Way Contract that allowed the installations of Small Cell antennas. Working together with Verizon, the City's Information & Technology Services and Legal departments were able to establish a mutually beneficial agreement that was approved by City Council on June 18, 2015. The agreement allows Verizon to access the City's rights-of-ways and traffic light structures to install their small cell antennas and Verizon will pay the City an application fee, attachment fee, and an annual access fee for every attachment throughout the City and residing in the rights-of-way (whether the asset is owned by the City or not). The negotiations with Verizon were collaborative and reasonable and represent a strong public/private relationship.

Montgomery County, Maryland²⁰

I. Siting Application Process.

Montgomery County, Maryland has had an extremely successful tower and antenna program in operation since the mid-1990s. Montgomery County has zoning by right for towers and antennas that attach to existing structures or that are in business areas. Its standard engineering and interference review process takes thirty (30) days or less. Montgomery County reviews and processes applications for new facilities and modifications to existing facilities through its Transmission Facility Coordination Group ("TFCG"), which is outsourced to a third party contractor. TFCG holds monthly public meetings to consider approval of properly submitted applications. Applications must be filed at least three weeks prior to its monthly meeting, which allows sufficient time to review and process an application in time to seek approval at the following meeting. Applications are reviewed for accuracy, completeness and compliance with zoning requirements. An engineering review is also performed by the Tower Coordinator to provide a determination of impact on existing facilities and the community, which is included in a written recommendation to the TFCG. The TFCG charges an application fee based upon the average time it takes to review and process the applications, which differ among the types of applications for minor modifications, a batch of the same type of modification at

¹⁹ The City of San Antonio, is the seventh most populated city in the United States of America and the second most populated city in the state of Texas, with a population of 1,409,019. It was the fastest growing of the top 10 largest cities in the United States from 2000 to 2010, and the second from 1990 to 2000.

²⁰ Montgomery County, MD is the most populous county in Maryland. As of 2014, the census estimate for the population was 1.03 million people. Montgomery County is included in the Washington–Arlington–Alexandria Metropolitan Statistical Area. As one of the most affluent counties in the United States, it also has the highest percentage (29.2%) of residents over 25 years of age who hold post-graduate degrees.

different sites, collocations, and new towers permitted by right and new towers permitted by special exception.

II. Local Regulations.

The site approval of telecommunication facilities is governed by local regulations. A special Zoning Text Amendment was adopted to regulate the installation of telecommunication facilities on private and public lands. Montgomery County's approval process for telecommunications facilities promotes lower limits on new tower heights unless a special need for an exception can be demonstrated by the applicant. It also allows for large, joint-use equipment shelters and prohibits the use of amateur radio support structures for commercial purposes. Further, Montgomery County has allowed the use of larger antennas for transmission of multiple signals, established setback requirements from off-site dwellings and granted permits by right for small cell antennas under certain conditions.

III. Successful Policies.

Montgomery County has been able to build successful relationships with those seeking to install wireless communication facilities. Local rules have been adopted to strike a balance between fostering economic development with the expansion of new telecommunication facilities on the one hand and public safety, community interests and environmental concerns on the other. Montgomery County also favors local control of land use and right-of-way regulation in lieu of federal regulations that result in single standards for all communities.

Montgomery County has found that encouraging the attachment of antennas to tall, existing buildings or structures, including gas station canopies, water tanks, cupolas, light poles, silos and existing radio towers, to be a less intrusive solution to providing cell service than the construction of new cell towers or monopoles. Montgomery County has also found that the use of camouflaged designs is a successful tool in order to minimize the visual impact of the wireless telecommunication facility on the community by using monopoles disguised as flagpoles, painting the facility to match the structure to which the antenna is attached, or by using faux walls to conceal the structure. Also, Montgomery County has found that the creative placement of antennas to existing structures, including church bell towers, is another effective method to conceal the facilities.

Pasco, Washington²¹

Pasco's wireless facility siting regulations permit such facilities as of right in all industrial zoning districts and one commercial zoning district if located greater than 500 feet from residential zoning districts; otherwise a special permit is required. In all other zoning districts, a special permit is required and the facility must either be: i) collocated on an existing or proposed building taller than 35 feet; ii) located on a publicly owned facility (i.e. water tank, fire or police station, school, county or port facility); or iii) screened or camouflaged by

²¹ Pasco, WA (population approximately 68,000) is a city in and the county seat of Franklin County, Washington. Pasco is one of three cities that make up the Tri-Cities region of the State of Washington. The Tri-Cities is a mid-sized metropolitan area of approximately 271,124 people that also includes the cities of Kennewick and Richland.

employing compatible materials, strategic location, color, stealth technologies and/or other measures to achieve minimum visibility when viewed from the public right-of-way. In selecting a location, the applicant bears the burden to locate the facility based on a preference hierarchy in the order enumerated above. In addition to published notice in the newspaper and city website, Pasco notifies by mail all property owners within 300 feet of a proposed facility siting for which a special permit is required.

Pasco's regulatory siting framework seeks to ameliorate the effects of wireless facility siting on the aesthetic and built-environment by implementation of well-recognized and reasonable siting requirements. It has resisted requests from citizens to further limit wireless facility siting, recognizing that such increased limitations are either preempted by federal law or will not further the public interest. For example, one citizen requested all property owners within 1000 feet receive notice of a proposed facility siting. Pasco found that greater radius notification would serve to increase discord rather than reduce it and that aesthetic concerns to property owners greater than 300 feet is minimal.

San Leandro, California²²

The City of San Leandro continues to face a number of challenges related to protecting the aesthetic and visual environment of its community when working with wireless carriers that are attempting to secure local permits for wireless facilities. San Leandro has experienced a general unwillingness from wireless carriers to work collaboratively to create solutions that will alleviate siting issues such as the negative aesthetic impacts of facilities on the community. For example, wireless companies have placed numerous utility equipment boxes near facilities. The City prefers underground vaulting of utility boxes when the boxes are proposed to be installed in prominent downtown locations. However, because the local government is largely preempted, San Leandro is unable to impose common sense conditions of approval that would mitigate the visual impacts of these wireless facilities.

C. Issues Specific to Siting Wireless Communications Facilities in Rights-of-Way

The approval of wireless facilities in rights-of-way is governed by local and often state regulations. Consideration of whether to grant such approval typically includes a review of whether the provider desires to attach its equipment to existing municipal or private utility-owned infrastructure, such as streetlight poles, or whether the provider desires to install its own equipment. States vary with respect to their processes for allowing siting on highways and State's rights-of-way.²³ With respect to municipal and county rights-of-way, the use of the local public rights-of-way for wireless facilities is decided by local policy makers. Some jurisdictions favor use of the public rights-of-way for such facilities, having determined that steering such facilities to public rights-of-way will lessen the need to site such facilities on business and

²² San Leandro, CA is a suburban city in Alameda County, California. It is located on the eastern shore of San Francisco Bay, between Oakland to the northwest and Hayward to the southeast. The 2015 United States Census estimate reported that San Leandro had a population of 90,712. San Leandro is also well-known for its quiet, well-defined neighborhoods full of charming and unique older houses on tree-lined streets.

²³ For example, the California Department of Transportation Wireless Siting Guide is available at: <http://www.dot.ca.gov/hq/row/wireless/guide/SitingGuid.pdf>.

residential properties. Others, however, have made the decision that utilities in the public rights-of-way should be located ultimately underground and thus, disfavor locating wireless communications facilities in the public rights-of-way. There are a variety of sound reasons why local jurisdictions would make this policy decision, including aesthetics, public safety, improved maintenance of infrastructure, particularly in harsh climates, and supporting the availability of critical utility services during and after emergency weather and other situations.

Permitting and local engineering decisions weigh the management of the public rights-of-way to protect, maintain and promote the public health, safety, and general welfare; establishment of reasonable regulations designed to manage the public rights-of-way; design requirements and procedures for the placement, construction and maintenance of wireless telecommunications facilities within the public rights-of-way; the establishment and administration of reasonable regulations governing the placement, construction and maintenance of wireless telecommunications facilities within the public rights-of-way to provide for and maintain the safety of the traveling public and pedestrians; the minimization of disruption to the public rights-of-way; and the preservation of the local government's authority to manage and regulate the public rights-of-way.

Some jurisdictions add an extra consideration requiring the applicant to file a "showing of need" report prior to considering the installation of additional provider-owned infrastructure in public rights-of-way. The report must provide sufficient information to demonstrate why existing alternative support structures in the public rights-of-way cannot reasonably accommodate the applicant's need.

Wireless providers who obtain state certification as Competitive Local Exchange Carriers ("CLEC") may seek to site wireless facilities in public rights-of-way under state franchising statutes which limit local government authority over access to, and compensation for, the use of their rights-of-way.²⁴ This can hinder the local government's ability to promote the use of the rights-of-way for safe and efficient movement of vehicular and pedestrian traffic, and to moderate the aesthetic impacts of excessive proliferation of wireless facilities.

In some states like Colorado, communications deregulation has led to elimination of the need for providers to obtain CLEC authorization. At the same time, Colorado law allows for communications and broadband provider access into public rights-of-way, subject to local police power regulations.²⁵ Such a statutory regime, adopted long before wireless infrastructure was considered for public rights-of-way, lacks clarity. It creates confusion as to whether existing regulations would or would not require a local government to permit separate towers in the rights-of-way for each provider, potentially resulting in light poles, traffic signal poles and multiple poles housing wireless infrastructure lining local streets without any local oversight or control.

²⁴ The wireless provider or reseller claims status as a telephone company on the same terms as wired telephone service providers, despite the significant differences in both technology and business models. For example, resellers have no end users within the local jurisdiction.

²⁵ C.R.S. 38-5.5.1-1, *et seq.*

In Connecticut, the Connecticut PURA has been reviewing and approving applications for the installation of wireless facilities in the public rights of way since October 2015. These facilities generally consist of: a canister antenna located below telecommunications wiring; a radio head which provides amplification and power output for the antenna; a connection from the radio head to the overhead commercial power; a telephone fiber optic connection to the radio head; a coaxial cable connecting the antenna to the radio head; an electric meter; and a disconnect device that enables the Facility to be de-energized in the event service needs to be performed on the pole or other equipment.

In Florida, state statutes regulating communications providers use of the rights-of-way have not kept up with changes in technology and have actually had a discouraging impact on local governments and wireless industry members entering into creative public private partnerships. Florida's law is an example of "be careful what you ask for," since prohibiting agreements for use of the rights-of-way was the legislative priority of the cable and communications industries at a time when there were hardly any wireless communications facilities located in the rights-of-way. It prohibits, in all instances, local governments from entering into agreements with providers of communications services for use of the rights-of-way.²⁶ Thus, local governments in Florida cannot enter into the types of agreements San Antonio and others have successfully negotiated with wireless providers. While local governments and industry members are not prohibited from installing wireless communications facilities in the rights-of-way, there are a variety of reasons under Florida law why both local governments and industry members do not prefer use of the rights-of-way for such wireless facilities. On the local government side, local governments cannot generally charge permit fees to cover the costs of reviewing applications to install such infrastructure in the rights-of-way, and cannot charge fees for use of the rights-of-way. In addition, if a local government does allow a wireless facility in the rights-of-way, it is very difficult, and potentially very costly, to require the relocation or removal of such facility if the government seeks to abandoned or alter the rights-of-way, or to underground utilities. Further, pursuant to the statute, local governments may be required to allow numerous wireless facilities in the rights-of-way once it allows any such facilities. On the industry side, industry members may generally not enter into agreements with local governments for use of government owned light poles in the rights-of-way. Further, it is often difficult for industry members to obtain the appropriate insurance and bonds that may be required consistent with Florida law for use of the rights-of-way.

D. Other Issues

1. Lack of Data

FCC data on the number and location of wireless communications towers and other facilities is apparently not available because for the most part, the structures do not need to be registered with the Commission.²⁷ As of May 2016, there were 134,509 antenna structures

²⁶ Section 337.401(3), *Florida Statutes*.

²⁷ Apparently, only towers over a certain height need to be registered with the Commission. Antennas that are located on towers and other structures do not need to be registered. In addition, the Tower Construction Notification System database is voluntary and the E106 system for tracking National History Preservation Act Section 106 process does not reflect all towers. The FCC also does not maintain any information on DAS installations.

registered with the FCC. The pace of new registrations has slowed over the years, as the industry is applying for less new towers than in prior years. Many wireless communications service providers are selling their towers to focus their funds and other resources on improving their system capacity, so the data is available from tower owners, not necessarily wireless communications service providers.

There is no data available at the FCC about how many providers are collocated on any individual tower or other structure, or what the coverage area for each provider may be. The tower or base station owner would be able to provide information about the number and name of wireless communications service providers on each facility. The Commission should consider requiring tower owners to provide information on tower construction and wireless communications facilities installed on each structure. This data will provide a basis for determining the scope of competitive markets and the percentage of Americans able to receive services. With the information provided from tower owners, the Commission could then engage with wireless communications service providers to obtain geographic service area and performance data that is currently not available.

In addition, it would be useful if the Commission maintained information generally on wireless siting and coverage for use by industry, local governments and policy makers. Both the industry and local governments often provide anecdotal information on issues that have arisen with specific wireless siting situations, but the IAC would caution against focusing on a few stories. This does not serve a productive purpose and certainly does not provide information that is representative of wireless siting practices of the vast majority of industry members and local governments. We were surprised to learn, for example, that the FCC has virtually no information on the extent of lawsuits brought under its shot clock regulations, or wireless coverage gaps that may exist in the country.²⁸ The Commission, many states, and even the IAC have operated under the assumption that there is still a need to site significant wireless towers and to collocate antennas on existing structures throughout the country. However, with new technologies, including Wi-Fi, and with most areas of the country having excellent wireless coverage and capacity, it seems that the process for siting facilities has worked amazingly well.

2. Collocation

Attaching wireless receivers and antennas on existing towers, structures, and base stations is in most cases, a preferred practice that minimizes the number of towers in a community. Multiple providers share the same structures. Federal and many states' laws reflect a policy of favoring collocation over the construction of new towers.²⁹ Consistent with federal and state law, many local governments' land development regulations reflect a policy favoring attaching antennas to existing structures before allowing the construction of new towers. Of

²⁸ We were further surprised to learn, for example, that FCC staff apparently has never attended a local government's public proceedings on a wireless facilities development application and we are unsure if staff has ever reviewed a completed application. The depth of the analysis would likely surprise policymakers.

²⁹ Section 6409 mandates approval of collocations, *supra* note 4, and several states' laws allow only an administrative review by staff for permits for certain collocations, as opposed to full development reviews with public hearings for new towers. Section 365.172(13), *Florida Statutes*.

course, industry members always are afforded the opportunity to demonstrate that collocation is not feasible to meet their needs.³⁰

There are numerous advantages to collocation as opposed to new tower construction. Collocating has the effect of speeding up the permitting and deployment process while reducing costs for the collocating providers and allowing providers to share upfront and maintenance costs of infrastructure. The infrastructure industry can also benefit from collocation by obtaining more rents for the use of its property.³¹ In addition, the impact of collocation on communities is overall favorable and supports maintaining community aesthetics, land use goals for the highest and best use of property, and facilitates improved wireless coverage and capacity.

As micro towers and structures proliferate through densification projects, a new look at collocation may be warranted. The logic behind macro towers and collocation was to minimize the number of towers. With micro cells, the goal is to maximize the coverage and footprint, delivering robust bandwidth everywhere. Macro towers are a real challenge for communities, especially in residential areas. There is always significant pushback by neighbors when a tower is proposed. There are challenges of safety, aesthetics, fear of radio frequency emissions, loss of usable property, and screening and upkeep concerns. Micro cells can often be supported by existing structures and utility poles and often go unnoticed by the public.

Some considerations regarding collocation requirements and micro cell sites:

- On shorter structures like buildings and utility poles, carriers are adversely affected by a lower placement. “No one wants to be number four on a light pole”.
- Multiple antennas on a shorter structure can have a significant negative aesthetic impact on a community.
- Collocating on shorter structures may cause a proliferation of control boxes on the ground around the structure. Local governments must retain authority to require such equipment to be placed underground. Indeed, technology exists today to allow easy access to such underground equipment for installation and maintenance.
- Lack of collocation may cause a “land-grab” for utility poles and buildings, effectively shutting out competitive services, or as noted above, creating a situation where individual utility-sized poles begin appearing every 10 feet along a street.
- Many poles are owned by private investor-owned utilities and/or local electric cooperatives. Some are quite willing to allow wireless infrastructure on their vertical assets (subject to safety considerations) while other refuse to do so. Further, owners of utility poles may run afoul of real estate easements and franchise agreements if they allow non-utility infrastructure to collocate on such poles.

³⁰ We are mindful that collocation generally refers to attaching a second or subsequent antenna array to a structure with existing antennas, but for purposes of this discussion, include locating antennas on existing structures, such as building rooftops, water towers and other structures, as collocation.

³¹ The infrastructure and wireless provider industries may have opposing views with respect to collocation. While providers seek to install antennas for increased capacity as quickly and efficiently as possible, the infrastructure industry seeks to maximize rent for their towers and would oppose the use of a tower owned by a competitor, even if it would be more efficient to use such other facility.

Regarding micro cell sites, there should be some latitude given to local government and wireless providers to experiment with a balance of collocation, service and community aesthetics. The goals should be expanded coverage and expanded competition in a regulatory environment that preserves local government's authority to address community aesthetics, public safety, economic development, and other issues associated with such uses. The IAC continues to believe collocation is critical for macro towers.

III. RECOMMENDED ACTIONS TO ADDRESS NEED AND ASSIST DEPLOYMENT

A. Minimizing the Coverage Gap

Corporate investments in towers and collocation on individual facilities, for the most part, focus on capacity issues rather than addressing coverage gaps, especially in rural areas. This is not surprising given the economics of meeting urban and other high density data and voice demand, but it does complicate FCC, state, and tribal efforts to improve public safety and provide education, health care and economic development opportunities to all citizens in an equitable manner.

While communications structures are taking many forms as technology evolves, the issue of eliminating coverage gaps remains relevant. Meeting customer capacity needs is important, both economically to the providers and to the IAC members as policy-makers, but the service gaps remain vitally important to the IAC because gaps perpetuate the "haves" and "have-nots" of the digital divide. The FCC's and President's goal that all Americans will have access to broadband at all times is not being met, and will not be met, without addressing the gap issue.

The Commission and other government agencies have taken steps to make funding available for new infrastructure construction, but the gap problem will remain because most providers prefer to use only one technology within their system (e.g., fiber) and public funding generally does not support competitive overbuild of an existing broadband provider. The economics and logistics of filling gaps require contemplation of an alternative regulatory incentive model. It may be appropriate to providing funding to communications providers whose business model includes the integration of service technologies (e.g., fixed base wireless and fiber), such that the cost of serving more potential customers is reduced on a per customer basis. Second, where a wireless service provider has shown little interest in reaching beyond its existing service footprint or has a service record that does not meet regional price, quality, or speed standards, permitting a competitor to overbuild an existing system may be warranted in order to provide affordable service to unserved or underserved Americans. This second recommendation may not be popular with many providers. However, policy makers and regulators should not tacitly permit providers to deliver inadequate services at inordinate prices or to deny service to consumers because of cost, when alternative providers with different business models can meet community expectations and needs.

B. Promoting Collocation and the Use of Less Intrusive Technologies

Data usage per customer is increasing, driven by the growing number of “smart” mobile devices and the richness of applications and media demands for these devices. While it seems clear that wireless macro towers have a more profound impact on a community, there is a need to balance the use of macro towers and micro sites to maximize benefit for both consumers and the industry. This balance may be a moving target that is best determined on a site-by-site basis collaboratively by the experts in the industry, together with local governments.

Whether a particular tower or base station meets a particular need is fact-specific. An existing tower or base station may or may not meet the applicant’s needs. Site specific factors should dictate whether it is reasonable for applicants to pursue alternative siting opportunities (e.g., multiple lower sites, building structures to facilitate camouflage requirements, etc.).

There are many reasons why an existing tower or base station may not meet a provider’s needs. These include:

- The existing structure may not be strong enough to safely hold the additional weight of the equipment the applicant seeks to mount on it.
- Equipment mounted on the existing structure may not provide coverage for the entire area the provider is seeking to serve. A single structure in another location may be able to cover the entire area.
- There may not be space on the existing tower at the required height to accommodate additional antennas.
- The provider may not be able to acquire a lease from the owner of the property for needed ground equipment.
- The provider may not be able to acquire a license from the owner of an existing wireless tower to attach its antennas.

The Commission is not equipped to make this fact-finding for every permit application; however, this is what local permitting agencies do every day. Therefore, the IAC strongly recommends that the FCC not engage in efforts to preempt local authority to review new tower and base station applications or to preempt local governments’ efforts to require exhaustion of collocation options and less intrusive technical options prior to consideration of approval of new facilities. As noted above, the FCC and other federal agencies should work with state, local and Tribal governments to ensure that private and non-profit utilities with vertical assets cannot refuse to unreasonably make these assets available for deployment of wireless infrastructure.

Finally, the IAC believes it is anticompetitive for applicants to acquire permits to build new towers or other wireless communications facilities and then fail to actually build. Infrastructure owners may obtain approvals for a new tower solely to shut out competitive infrastructure developers from building in a particular area. Local governments, in most cases, already have the authority and actually do put reasonable expiration dates on permits, and the FCC should recognize and respect such local authority.

As mentioned previously, the effort to encourage collocation and the use of less intrusive technologies would be greatly enhanced by the availability of reliable data reflecting inventories of existing facilities and capacity for additional antennas. This could be accomplished if the FCC were to require filing of information for all wireless siting to create such a nationwide database, including information on unused capacity on existing facilities.

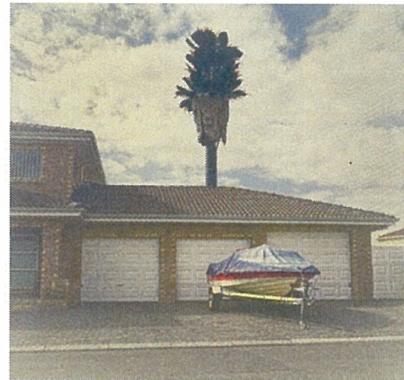
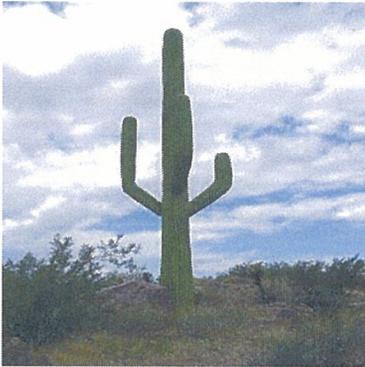
IV. CONCLUSION

The information contained in this paper reflects the sensitivity of local governments to the concerns of the communications industries and their customers.³² By using thoughtful approaches to wireless siting methods, local governments balance the needs of business constituents with those of residents and visitors. Moreover, local solutions account for issues and concerns that are part of the lived experience of the local population, in a way that will not result from a nationalized approach to wireless facilities siting. The IAC urges the Commission to accept the following principles:

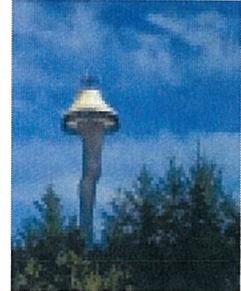
- a) Local governments and industry members generally work well together to site wireless facilities, while respecting public safety, aesthetics, historic sites, costs, timeframes, and other sensitive areas. Local governments have substantial experience processing development applications in a manner that addresses residents, developers, and local government concerns, to all of their satisfaction. This holds true for development applications for wireless facilities. In those relatively rare instances where local governments and wireless facilities applicants are unable to resolve differences, the courts are the appropriate method to resolve conflicts. The IAC encourages opportunities for continued cooperation and education between local governments and the wireless and infrastructure industries.
- b) Addressing gaps in wireless service availability remains a vital mission of the Commission, particularly in tribal areas that do not have such service. So too is the recognition that competition between providers results in better service and lower costs to consumers. Thus, where necessary to facilitate the closing of gaps in service coverage, the Commission should consider encouraging overbuilds of existing high cost, lower service quality systems.
- c) The Commission should favor consumer interests over industry preferences. It is important to acknowledge that infrastructure owners and service providers must recover their costs and earn a return on their investments. At the same time, providers that focus only or primarily on high density population areas do a disservice to those potential consumers in the lower density areas. The Commission should encourage the larger national providers to utilize multiple technologies to expand their systems to reach the largest number of potential consumers in lower density areas. The Commission should also continue its efforts to support and to enable other entities, including government and nonprofit entities, to construct appropriate infrastructure that closes gaps in coverage and provides better quality services to narrow America's digital divide. State laws that discourage or prohibit such competitive broadband service should be overturned.

³² Many of the largest wireless services consumers are in fact, local governments.

- d) The Commission should recognize and support, in all deliberations addressing wireless infrastructure siting, that policies and siting decisions are best left to local governments. What may work in one community may not be appropriate in another. Federal and state agencies often approach issues with a sincere desire to assist, and a belief that standardization is more efficient. However, with wireless facilities, standardization does not work, and actually would be less efficient for the industry, for localities and for consumers.



For a wireless development that is handled properly, such as this stealth cactus tower with equipment hidden in fake rocks, it can be a win win for the applicant, the local government, residents and consumers. However, for a tower development that is handled poorly or rushed, such as this stealth palm tower behind a home, it can create years of problems and frustration for the local government, facility owner, and residents who experience decreased property values and other issues associated with badly planned developments.



Not every wireless facility is appropriate for every community. These decisions are best left to those most experienced in making such development decisions.

Again, the IAC thanks the Commission for the opportunity to provide input on this issue.

Respectfully Submitted



Handwritten signature of Gary Resnick in blue ink.

Gary Resnick
Chair