INFORMATION MEMO

Cell Towers, Small Cell Technologies & Distributed Antenna Systems

Learn about large and small cell tower deployment and siting requests for small cell and distributed antenna systems ("DAS") technology. Better understand the trend of the addition of DAS or small cell equipment on existing utility equipment. Be aware of common gaps in city zoning, impact of federal law, and some best practices for dealing with large and small cell towers, as well as with DAS.

RELEVANT LINKS:

47 U.S.C. § 253 (commonly known as Section 253 of Telecommunications Act).

47 U.S.C. §332 (commonly known as Section 332 of Telecommunications Act).

FCC Website.

I. Deployment of large cell towers or antennas

A cell site or cell tower creates a "cell" in a cellular network and typically supports antennae plus other equipment, such as one or more sets of transceivers, digital signal processors, control electronics, GPS equipment, primary and backup electrical power and sheltering. Only a finite number of calls or data can go through these facilities at once and the working range of the cell site varies based on any number of factors, including height of the antenna. The FCC has stated that cellular or personal communications services (PCS) towers typically range anywhere from 50 to 200 feet high.

The emergence of personal communications services, the increased number of cell providers and the growing demand for better coverage have spurred requests for new cell towers and small cell equipment nationwide. As a result, some cellular carriers, telecommunications wholesalers or tower companies, have attempted to quickly deploy telecommunications systems or personal wireless service facilities, and, in doing so, often claim federal law requires cities to allow construction or placement of towers, equipment or antennas in rights-of-way. Such claims generally have no basis. Although not completely unfettered, cities can feel assured that, in general, federal law preserves local zoning and land use authority.

A. The Telecommunications Act and the FCC

47 U.S.C. § 253 (commonly known as Section 253 of Telecommunications Act).

47 U.S.C. §332 (commonly known as Section 332 of Telecommunications Act).

FCC website interpreting Telecommunications Act of 1996.

The Telecommunications Act of 1996 (TCA) represented America's first successful attempt to reform regulations on telecommunications in more than 60 years; and, also, was the first piece of legislation to address internet access. Congress enacted the TCA to promote competition and higher quality in American telecommunications services and to encourage rapid deployment of new telecommunications technologies.

The Federal Communication Commission (FCC) is the federal agency charged with creating rules and policies under the TCA and other telecommunications laws.

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RELEVANT LINKS:

The FCC also manages and licenses commercial users (like cell providers, telecommunications wholesalers and tower companies), as well as non-commercial users (like local governments). As a result, both the TCA and FCC rulings impact interactions between the cell industry and local government.

The significant changes in the wireless industry and its related shared wireless infrastructures, along with consumer demand for fast and reliable service on mobile devices, have fueled a frenzy of requests for large and small cell/DAS site development and/or deployment. As a part of this, cities find themselves facing cell industry arguments that federal law requires cities to approve tower siting requests.

47 U.S.C. § 253 (Section 253 of Telecommunications Act).

47 U.S.C. § 332(c)(7).

FCC 09-99, Declaratory Ruling (Nov. 18, 2009).

Companies making these claims most often cite to Section 253 or Section 332 of the TCA as support. Section 253 states "no state or local statute or regulation may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service". Section 332 has a similar provision ensuring the entry of commercial mobile services into desired geographic markets to establish of personal wireless service facilities.

47 U.S.C. § 253(c),(e) (Section 253 of Telecommunications Act).

47 U.S.C. § 332(c)(7).

FCC 09-99, Declaratory Ruling (Nov. 18, 2009).

These provision should not, however, be read out of context. When reading the relevant sections in their entirety, it becomes clear that federal law does not pre-empt local municipal regulations and land use controls. Specifically, the law states "[n]othing in this section affects the authority of a State or local government to manage the public rights-of-way or to require fair and reasonable compensation from telecommunications providers, on a competitively neutral and nondiscriminatory basis, for use of public rights-of-way …" and that "nothing in this chapter shall limit or affect the authority of …local government … over decisions regarding the placement, construction, and modification of personal wireless service facilities".

Sprint Spectrum v. Mills, 283 F.3d 404 (2nd Cir. 2002).

USCOC of Greater Missouri v. Vill. Of Marlbough, 618 F.Supp.2d 1055 (E.D. Mo. 2009).

FCC 09-99, Declaratory Ruling (Nov. 18, 2009).

Courts consistently have agreed that local governments retain their regulatory authority and, when faced with making decisions on placement of towers, antenna or *new* telecommunication service equipment on city facilities, they have the same rights that private individuals have to deny or permit placement of a cellular tower on their property. This means cities can regulate and permit placement of towers and other personal wireless service facilities, including controlling height, exterior materials, accessory buildings and even location. Cities should be careful to make sure that local regulations don't have the effect of completely banning all cell towers or personal wireless service facilities. Such regulation could run afoul of federal law.

RELEVANT LINKS:

Vertical Broadcasting v. Town of Southampton, 84 F. Supp.2d 379 (E.D.N.Y. 2000).

Some cellular companies try to gain access by claiming they are utilities. The basis for such a claim usually follows one of two themes – either that, as a utility, federal law entitles them to entry; or, in the alternative, under the city's ordinances, they get the same treatment as other utilities. Courts consistently have rejected the first argument of entitlement, citing to the specific directive that local municipalities retain traditional zoning discretion.

B. State law

Paging v. Bd. of Zoning Appeals for Montgomery Cty., 957 F.Supp 805 (W.D. Va. 1997).

Letter from Minnesota Department of Commerce to Mobilitie.

Minn. Stat. §237.162
Minn. Stat. §237.163 .

Minnesota Public Utilities Commission, Meeting Agenda (Nov. 3, 2016).

In the alternative, the argument that a city's local ordinances include towers as a utility has, on occasion and in different states, carried more weight with a court. To avoid any such arguments, cities can specifically exclude towers, antenna, small cell, and DAS equipment from their ordinance's definition of utilities. The Minnesota Department of Commerce, in a letter to a wireless infrastructure provider, cautioned the company that its certificate of authority to provide a local niche service did not authorize it to claim an exemption from local zoning. The Minnesota Department of Commerce additionally requested that the offending company cease from making those assertions. Some confusion has arisen regarding what types of entities represent telecommunications right-of-way users under state law. If an entity qualifies as a telecommunications right-of-way user, a specific state statutory provision applies which allows local government, through an ordinance, to further manage its rights of way and recover its rights-of-way management costs (subject to certain restrictions). Cities should work with city attorneys on reviewing or updating its ordinances.

C. Limitations on cities' authority

USCOC of Greater Missouri v. Vill. Of Marlbough, 618 F.Supp.2d 1055 (E.D. Mo. 2009).

Minnesota Towers Inc. v. City of Duluth, 474 F.3d 1052 (8th Cir. 2007).

NE Colorado Cellular, Inc. v. City of North Platte, 764 F.3d 929 (8th Cir. 2014) (denial of CUP for tower must be "in writing" but need not be a separate finding from the reasons in the denial).

Although federal law expressly preserves local governmental regulatory authority, it does place several substantive and procedural limits on that authority. Specifically, a city:

- cannot unreasonably discriminate among providers of functionally equivalent services,
- cannot regulate those providers in a manner that prohibits or has the effect of prohibiting the provision of telecommunications services or personal wireless services,
- must act on applications within a reasonable time (easily met by compliance with Minnesota's 60 day rule), and

RELEVANT LINKS:

Minn. Stat. § 15.99. See LMC information memo, *The 60-Day Rule: Minnesota's Automatic Approval Statute.*

Smith Comm. V. Washington Cty, Ark., 785 F.3d 1253 (8th Cir. 2015) (substantial evidence' analysis involves whether the local zoning authority's decision is consistent with the applicable local zoning requirements and can include aesthetic reasons).

- must document denial of an application in writing supported by "substantial evidence".

Proof that the local zoning authority's decision furthers the applicable local zoning requirements satisfies the substantial evidence test. Municipalities cannot cite environmental concerns as a reason for denial, however, when the antennas comply with FCC rules on radio emissions. In the alternative, cities can request proof of compliance with the FCC rules.

Bringing an action in federal court represents the recourse available to the cellular industry if challenging the denial of a siting request under federal law. Based on the limitations set forth in the federal law on local land use and zoning authority, most often, when cities deny siting requests, the challenges to those denials claim:

FCC 09-99, Declaratory Ruling, Nov. 18, 2009.

Tower and Antenna Siting FAQ sheet from FCC.

T-Mobile West V. Crow, No. CV08-1337 (D. AZ. Dec. 16, 2009).

- the municipal action has the effect of "prohibiting the provision of personal wireless service"; or
- the municipal action unreasonably discriminates among providers of functionally equivalent services (i.e. cell providers claiming to be a type of utility so they can get same treatment as utility under city ordinance).

Minn. Stat. §237.162
Minn. Stat. §237.163

Although this memo primarily focuses on the federal law applicable to siting requests, cities should remember to consult state law as well. In addition to mirroring the federal law including recognizing the local government's authority to manage its public rights-of-way, state law permits cities, by ordinance, to further regulate "telecommunications right-of-way users". Cities should consult their city attorneys when drafting its ordinance or consulting state law.

D. Court decisions

Minnesota Towers Inc. v. City of Duluth, 474 F.3d 1052 (8th Cir. 2007).

Smith Comm. V. Washington Cty, Ark., 785 F.3d 1253 (8th Cir. 2015).

The Eighth Circuit (controlling law for Minnesota) recognizes that cities do indeed retain local authority over decisions regarding the placement and construction of towers and personal wireless service facilities.

RELEVANT LINKS:

Voicestream PCSII Corp. v. City of St. Louis, No. 4:04CV732 (E.D.Mo. August 3, 2005) (city interpretation of city ordinance treats communication facility as a utility).

USCOC of Greater Missouri v. Vill. Of Marlbough, 618 F.Supp2d 1055 (E.D. Mo. 2009).

The Eighth Circuit also has heard cases where a carrier or other telecommunications company argue they are a utility and should be treated as such under local ordinances. Usually the companies that provide wholesale telecommunication services to licensed carriers (most often occurring in the Distributed Antenna System or DAS, systems discussed in Section II below) make this argument. Absent a local ordinance that includes this type of equipment within its definition of utilities, courts do not necessarily deem cell towers or other personal communications services equipment functionally equivalent to utilities. Additionally, courts have found that the federal law anticipates some disparate application of the law, even among those deemed functionally equivalent. For example, courts determined it reasonable to consider the location of a cell tower when deciding whether to approve tower construction (finding it okay to treat different locations differently), as long as cities do not allow one company to build a tower at a particular location at the exclusion of other providers.

E. City Approaches

LMC information memo, *Regulating City Rights of Way*, and model right of way ordinance.

See Appendix, Sample Ordinances and Agreements.

Regulation of placement of cell towers and personal wireless services can occur in a variety of different ways, including zoning ordinances, rights-of-way (ROW) management ordinances or adopting a specific cell tower/telecommunication ordinance. Minnesota law provides cities with comprehensive authority to manage their ROWs. With the unique application of federal law to telecommunications, coupled by siting requests that may request siting both in and out of rights-of-way, many cities find that having a separate telecommunications ordinance (in addition to a ROW ordinance) allows cities to better regulate towers and other telecommunications equipment, including addressing location, design, height, lighting, finish or accessory buildings. Some cities also have modified the definitions in their ordinances to exclude cell towers, telecommunications, wireless systems, DAS, small cell equipment and more from utilities to counter the cell industry's requests for equal treatment or more lenient zoning under the city's zoning ordinances.

See Appendix, Sample Ordinances and Agreements.

In addition to adopting specific regulations, many city zoning ordinances recognize these structures as conditional uses requiring a permit (many of these regulations include a provision for variances, if needed). With the emergence of small cell technologies, like DAS systems described in a later part of this memo, cities have started to amend their zoning and cell tower/telecommunications ordinances to account for more expedited decisions on small cell/DAS siting requests, including establishing a separate administrative approval process for these less burdensome requests to add technologies onto existing structures, like poles or water towers.

RELEVANT LINKS:

Also, because these new technologies attach to existing structures, cities often need additional documents for managing these relationships including Master Licensing Agreements, License Supplement (or Lease); Pole Attachment Application (if city's ordinance so requires in its permit process); and Bill of Sale (for sale of pole from carrier to city).

II. Deployment of small cell technologies and DAS

Small cell equipment and DAS both transmit wireless signals to and from a defined area to a larger cell tower and often are installed at sites that support cell coverage either within a large cell area that has high coverage needs or, in the alternative, at sites within large geographic areas that have poor cell coverage overall.

Situational needs dictate when cell providers use small cell towers, as opposed to DAS technology. Generally, cell providers install small cell towers when they need to target specific indoor or outdoor areas like stadiums, hospitals, or shopping malls. DAS technology, alternatively, uses a small radio unit and an antenna (that directly link to an existing, large cell tower via fiber optics). Installation of a DAS often involves cell providers using the fiber within existing utility structures to link to its larger cell tower. Cities sometimes are asked to provide the power needed for the radios, which the city can negotiate into the leasing agreement with the cell provider.

A. Additional zoning and permitting needs

See Appendix, Sample Ordinances and Agreements.

Currently many cities' zoning ordinances address large cell sites, but not small cell towers or DAS. Cities should review their ordinances to establish an efficient way to review and process small cell/DAS requests, particularly in light of federal law. As discussed earlier in this memo, one common approach includes setting up an administrative approval process to more quickly review requests for these small cell/DAS technologies.

See Appendix, Sample Ordinances and Agreements.

Since the placement of small cell technology or DAS on existing structures oftentimes can result in cities renting space on city owned structures, like poles or water towers, cities should also consult city attorneys to get assistance with drafting master licensing agreements, license supplement (or lease); pole attachment application (if city's ordinance so requires in its permit process); and bill of sale (for sale of pole from carrier to city).

RELEVANT LINKS:

Generally, the terms of the Master License Agreement should include provisions regarding:

- licensing scheme
- definitions of scope of permitted uses
- establishment of ROW rental fee
- protection of city resources
- provision of contract term
- specification of each installation subject to sublicense or lease
- establishment of application approval process
- statement of general provisions

47 U.S.C. §332 (commonly known as Section332 of Telecommunications Act).

FCC 09-99, Declaratory Ruling (Nov. 18, 2009).

FCC 14-153, Report & Order (October 21, 2014).

Cities also should be aware that new DAS or new small cell technologies are subject to the same restrictions under federal law that apply to large of towers. Specifically,

- a city may not unreasonably discriminate among providers of functionally equivalent services,
- may not regulate in a manner that prohibits or has the effect of prohibiting the provision of personal wireless services,
- must act on applications within a reasonable time and
- must make any denial of an application in writing supported by substantial evidence in a written record.

The below questions may help guide cities when reviewing current ordinances:

See, "Small Cells and distributed antenna systems," Best, Best and Krieger Law (Sept. 2014).

- Does the city's zoning ordinance apply to smaller facilities in the rights-of-way?
- Will the city's regulatory process allow it to review a request to place a number of facilities at multiple sites in a timely way?
- Can the city ensure that small facilities, once approved, will not expand into harmful facilities later?
- Does the DAS provider have wireless customers, or is it only placing facilities with the hope of obtaining them?
- Has the city developed an approach to leasing government-owned property for new wireless uses that protects the community and maximizes the value of its assets?
- Does the city's rights of way management ordinance exclude these small facilities from the definition of utilities?

RELEVANT LINKS:

B. Modifications of existing telecommunication structures

Section 6409(a) of the Middle Class Tax Relief and Joe Creation Act of 2012, *codified at* 47 U.S.C. § 1455.

FCC Public Notice AD 12-2047 (January 25, 2013).

FCC 14-153, Report & Order (October 21, 2014).

FCC Public Notice AD 12-2047 (January 25, 2013).

Cities should know that, if a siting requests proposes *a modifications to and/or collocations of wireless transmission equipment on existing FCC regulated towers or base stations*, then federal law further limits local municipal control. Specifically, the law requires cities to grant requests for modifications or collocation to existing FCC regulated structures when that modification would not "substantially change" the physical dimensions of the tower or base station. The FCC has established guidelines on what "substantially change the physical dimensions" means and what constitutes a "wireless tower or base station".

Once small cell equipment or antennae gets placed on that pole, then the pole became a telecommunication structure subject to federal law and FCC regulations. Accordingly, the city now must comply with the more restrictive federal laws which allow modifications to these structures that do not substantially change the physical dimensions of the pole, like having equipment from the other cell carriers.

FCC Public Notice AD 12-2047 (January 25, 2013).

City of Arlington Texas, et. al. V. FCC, et. al., 133 S.Ct. 1863, 1867 (2013) (90 days to process collocation application and 150 days to process all other applications, relying on §332(c)(7)(B)(ii)).

Minn. Stat. § 15.99.

This model ordinance and other information can be found at National Association of Counties Website.

Under this law, it appears cities cannot ask an applicant who is requesting modification for documentation information other how the modification impacts the physical dimensions of the structure. Accordingly, documentation illustrating the need for such wireless facilities or justifying the business decision likely cannot be requested. Of course, as with the other siting requests, state and local zoning authorities must take prompt action on these siting applications for wireless facilities (which Minnesota's 60 day shot clock rule satisfies).

Two wireless industry associations, the WIA (formerly known as the PCIA) and CTIA, collaborated with the National League of Cities, the National Association of Counties, and the National Association of Telecommunications Officers and Advisors to: (1) develop a model ordinance and application for reviewing eligible small cell/DAS facilities requests under federal law (2) discuss and distribute wireless siting best practices; (3) create a checklist that local government officials can use to help streamline the review process; and (4) hold webinars regarding the application process.

III. Moratoriums

The cellular industry often challenge moratoriums used to stall placement of cell towers, as well as small cell/DAS technology, until cities can address regulation of these structures. Generally, these providers argue that these moratoriums:

RELEVANT LINKS:

- prohibit or have the effect of prohibiting the provision of personal wireless services; or
- violate federal law by failing to act on an application within a reasonable time.

Courts agree that the legality of moratoria related to cell tower or personal wireless service deployment requires a case by case analysis and turns on the facts of each situation. Review of these moratoriums oftentimes depend upon:

APT Minneapolis, Inc. v. Stillwater Township, Civil No 00-2500 (D. Minn. June 22, 2001) (unpublished).

Sprint Spectrum v. City of Medina, 924 F.Supp. 1036 (W.D.Wash.1996).

Sprint Spectrum v. Town of W.Seneca, 659 N.Y.S.2d 687 (N.Y.Sup.Ct.1997).

Sprint Spectrum v. Jefferson County, 968 F.Supp. 1457 (N .D.Ala.1997).
Telecommunications Advisors v. Bd. of Selectmen of the Town of W. Stockbridge, 27 F.Supp.2d 284 (D.Mass.1998).

- whether the city already had a cell tower ordinance in effect at the time of application or if the city passed the moratorium because they had no relevant zoning in place);
- how much time had passed since the passing of the federal law, indicating whether this moratorium was not in response to recent legislation;
- whether the city continued to accept applications during the moratorium, even if final decisions became delayed; and
- the length of time for the moratorium.

IV. Conclusion

With the greater use of calls and data associated with mobile technology, cities are likely to see more new cell towers, as well as small cell technology/DAS requests. As a consequence, it would make sense to proactively review city regulations to ensure they are consistent with federal law, while still retaining control over the deployment of structures and in and uses of rights of way.

Appendix A: Sample Ordinances and Sample Agreements

Many cities address cell towers in their ordinances already. For information purposes only, the links below reference just a few of these telecommunications facilities ordinances in Minnesota:
Sample Telecommunications Ordinances
City of Edina Ordinance: (Chapter 34 Telecommunications)
City of Greenwood Ordinance (Page 98, Telecommunications Facilities)
City of Minneapolis Ordinance: (Amendment to Ordinance to accommodate Small Cell/DAS equipment)
City of Minnetonka Ordinance: (Section 300.34 Telecommunications Facilities)

Sample Master License Agreement for DAS/Small Call
Texas City Attorney Association Addendum to Local Gov. Code, Chapter 283
San Antonio, Texas
Boston, Massachusetts
San Francisco, California:

Sample Ordinances approving Master License Agreement for DAS/Small Cell
Houston, Texas
San Antonio, Texas

Cooperation Agreement with Verizon
Boston, Massachusetts