Michigan State University Extension
Land Use Series

Limits and parameters on local and state regulation of wireless communication 2015 Update

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Contents

In 2012 the United States Congress passed a law that says "A state or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station."

"Thirty seven million acres is all the Michigan we will ever have"
William G. Milliken

This is a fact sheet developed by experts on the topic(s) covered within MSU Extension. Its intent and use is to assist Michigan communities making public policy decisions on these issues. This work refers to university-based peer reviewed research, when available and conclusive, and based on the parameters of the law as it relates to the topic(s) in Michigan. This document is written for use in Michigan and is based only on Michigan law and statute. One should not assume the concepts and rules for zoning or other regulation by Michigan municipalities and counties apply in other states. In most cases they do not. This is not original research or a study proposing new findings or conclusions.

Such limits on local authority exist in the Federal Telecommunications Act of 1996 (FTA)[1] and new limitations were added at the start of 2012 and more limitations at the start of 2013. Many missed the new restrictions added to the FTA because some of the broadband and wireless legislation was buried in the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act) (also known as the federal sequestration budget cuts act [sequestration act]) – in Title VI, subtitle D, section 6409.[2] Also, the Michigan Zoning Enabling Act was amended by PA 143 of 2012 to add a section 514[3] on wireless communications, which also limits local government regulation of such facilities.

The state law requires most applications to be handled as permitted uses, but in some cases may be special uses – with a cap on application fees, deadlines for actions, and other matters.

A result of the passage of the FTA and Spectrum Act was confusion over the many ambiguities found in Congress' action.

For Michigan an attempt was made to clarify that with the publication of Land Use Series "Limits and parameters on local and state regulation of wireless communication," September 13, 2013 by MSU Extension (now found on the archived, or "old stuff" part of lu.msue.msu.edu).

In an attempt to clarify the ambiguities of Section 6409(a) of the Spectrum Act the Federal Communications Commission (FCC) issued a new rule of interpretation.[4] The 155-page rule was adopted on October 21, 2014 and takes effect 90 days from that date (effective January 19, 2015). The new rule lays out several key definitions, most of which were written in a way that favors the wireless industry and limits local government authority. This flyer is an update of Land Use Series "Limits and parameters on local and state regulation of wireless communication," (2013) and will review (1) the FTA, (2) the Spectrum Act, (3) the 2014 FCC ruling, and (4) the Michigan statutory amendment.

[1] Pub. LA. No. 104-104, 110 Stat. 56 (1996); 47 U.S.C.151

[2] Title VI –Public Safety Communications and Electromagnetic Spectrum Auctions; Subtitle D Spectrum Auction Authority; Section 6409 Wireless Facilities Deployment.

[3] PA 143 of 2012 amended the MZEA by adding MCL 125.3514, effective May 24, 2012.

[4] 47 C.F.R. Part 1 and Part 17. Federal Communications Commission Report and Order, October 17, 2014 (FCC14-153), Appendix B.

Summary and "to do" list

This topic now has federal code, the 2014 FCC ruling, court rulings, and state statute each providing ground rules, and sometimes contradicting each other. At the very minimum review your zoning (or other ordinances) to make sure it does not contravene these points:

- The ordinance includes within "wireless communication" wireless, broadband, licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast, and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband, and other such services (page 4).
- The ordinance does not require any documentation beyond what is needed to determine the proposed construction is covered under the Spectrum Act (section 6409(a)) (page 4). Michigan statute allows requiring a site plan, map of the property (page 18).
- The ordinance does not require a showing of "need" for the modification (page 4).
- No discrimination between different businesses, providers of wireless services (page 5, 7).
- The ultimate effect of local and state regulation cannot result in prohibiting the ability of a business, or businesses, to provide personal wireless services to an area (page 4, 5, and 7).
- Collocated facilities on a structure that complies with existing zoning and does not increase height more than 20 feet or 10%, whichever is greater and other details, are handled as permitted uses (page 16).
- Collocated facilities on a structure that complies with existing zoning and does increase height more than 20 feet or 10%, whichever is greater and other details, are handled as special use permit type one (page 16). Federal Guidance may not allow approval by special use permit, conditions, or standards (page 14).
- New facilities are handled as special use permit type two (page 18). Federal Guidance may not allow approval by special use permit, conditions, or standards (page 14).
- Permit fees do not exceed actual costs or $1,000, whichever is less (page 17 and 18).
- Decisions are acted upon within specified deadlines (page 5 and 10+):
    - Federal requirement of 30 days to notify an application is incomplete (page 10), Michigan requirement of 14 days to notify an application is incomplete (page 17 and 18).
    - Federal requirement of 90 days for a decision on a collocation on an existing structure (e.g., tower) (page 10), Michigan requirement of 60 days for a decision on a collocation on an existing structure (e.g., tower) (page 17 and 18).
    - Federal requirement of 150 days for a decision on a new facility (page 10), Michigan requirement of 90 days for a decision on a new facility (page 18).
- Decisions are provided in writing and supported by substantial evidence in writing (if the denial and reasons are not in the same document, both must be issued at the same time) (page 9).
- Conditions of approval may only be required if directly related to zoning, another ordinance, state or federal law (page 17 and 18). Federal Guidance may not allow approval by special use permit, conditions, or standards (page 14).
- Findings of fact cannot include health impacts or concerns of radio frequency emissions if such emissions comply with FCC regulations on emissions (page 13).
- Findings of fact cannot include concerns about property values of nearby land unless documented by expert testimony and study done specifically for that location (e.g., qualified land appraiser or mortgage banker's expert testimony) (page 13).

- Terminology used in a local ordinance is consistent with how words are defined and used by the FCC, specifically in the Spectrum Act, the 2014 FCC Ruling (page 13+), and Michigan Statute definitions (page 19):
  - Base station (Federal)
  - Collocate (Michigan)
  - Collocation (Federal)
  - Eligible facilities request (Federal)
  - Equipment compound (Michigan)
  - Existing (Federal)
  - Replacement of transmission equipment (Federal)
  - Shall approve (Federal)
  - Substantial change (Federal)
  - Transmission equipment (Federal)
  - Wireless communications equipment (Michigan)
  - Wireless communication support structure (Michigan)
  - Wireless tower (Federal)
- Cannot regulate Michigan State Police radio communication systems (page 19).

The remainder of this flyer will cover these topics in more detail.

Federal Telecommunications Act

Summary of the FTA in general

First, the FCC ruling permits local governments to require an application for proposed facilities. This is to allow local officials to determine whether the proposed facility changes are covered by Section 6409(a) (the Spectrum Act). The FCC found that nothing in 6409(a) indicates that local governments must approve requests merely because applicants claim they are covered. The ruling, however, prevents local governments from requiring any documentation beyond that needed to determine whether the request is covered by Section 6409(a); local governments may not require documentation "proving the need for the proposed modification or presenting the business case for it."

Local and state governments cannot discriminate between different businesses that provide similar types of wireless, broadband, licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast, and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband, and other such services. Further the ultimate effect of local and state regulation cannot result in prohibiting the ability of a business, or businesses, to provide personal wireless services to an area.

Local governments and states can still regulate the placement, construction, and modification[5] of personal wireless services, but with certain restrictions. Those restrictions on state and local

[5] 47 U.S.C. § 332(c)(7)(A) (2006).

governments are categorized into three substantive and two procedural categories according to Robert B. Foster.[6]

Substantive restrictions are:

1. Cannot unreasonably discriminate between different provider companies.[7] ("Reasonable" discrimination would be based on if facilities "create[d] different visual, aesthetic, or safety concerns."[8] But further restriction in Michigan may exist because aesthetics cannot be a primary purpose of regulation.[9])
2. "[T]he regulation of the placement, construction, and modification of personal wireless service facilities . . . shall not prohibit or have the effect of prohibiting the provision of personal wireless services."[10] (See discussion on *T-Mobile Central v. West Bloomfield Charter Township* at page 6+.)
3. Regulations cannot be based on "environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC]'s regulations. . . ."[11] (See discussion on radio frequency emissions on page 13.)

Procedural requirements are:

1. Applications must be acted on within certain deadlines and decisions shall "be in writing and supported by substantial evidence contained in a written record"[12] as well as following requirements of local and state law. (See MSU Extension's *Land Use Series* "How to take Minutes For Administrative Decisions" May 4, 2006 at lu.msue.msu.edu; the FTA deadlines for action, page 10+; and the section on Michigan Law, page 17+.)
2. Anyone harmed by a decision to deny a wireless facility permit can bring the issue to court, and the court must hear and rule on the case in an expedited manner.[13] (Note the provision is for a cause of action for denial of a permit, not for granting a permit.[14])

More recently added are federal law provisions which require a state or local government to allow expansion of existing wireless facilities (see discussion on the Spectrum Act, page 13+.)

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[6] Foster, Robert B.; "Like a Martian Machine: Recent Developments in Land Use Regulation of Cellular Telecommunications Facilities under the Telecommunications Act of 1996"; *Urban Lawyer*; Summer 2011; Vol. 43, Issue 3; p.789-799. 43 Urb. Law. 789 2010-2011.

[7] 47 U.S.C. § 332(c)(7)(B)(i)(I) (2006).

[8] *MetroPCS N.Y., LLC v. City of Mount Vernon* 739 F. Supp. 2d 409 (S.D.N.Y. 2010) at 417 (quoting Sprint Spectrum, L.P. v. Willoth, 176 F.3d 630, 643 (2d Cir. 1999).

[9] *Wolverine Sign Works v. City of Bloomfield Hills*, 279 Mich 205, 271 NW 823 (1937) (Counterpoint: *Gannett Outdoor Co. v. City of Troy*, 156 Mich App 126, 136, 409 NW2d 719, 723 (1986)).

[10] 47 U.S.C. § 332(c)(7)(B)(i) (2006).

[11] 47 U.S.C. § 332(c)(7)(B)(iv) (2006).

[12] 47 U.S.C. §§ 332(c)(7)(B)(ii)-(iii).

[13] 47 U.S.C. § 332(c)(7)(B)(v).

[14] Foster, Robert B.; "Like a Martian Machine: Recent Developments in Land Use Regulation of Cellular Telecommunications Facilities under the Telecommunications Act of 1996"; *Urban Lawyer*; Summer 2011; Vol. 43, Issue 3; at p.797-798. 43 Urb. Law. 789 2010-2011.

Placement of wireless facilities

The FTA gives courts authority to review zoning denial of wireless facilities and towers.[15] Over time courts have tried to balance "local control" and the public need for wireless facilities providing full (geographic) and adequate (volume) coverage.

The FCC ruling indicates the FCC does not want to be the forum for resolving disputes over Section 6409(a), and therefore stated that "the most appropriate course for a party aggrieved by operation of Section 6409(a) is to seek relief from a court of competent jurisdiction."

Also the FCC determined that Section 6409(a) is meant to apply to local governments only when acting in their role as land use regulators. As such, Section 6409(a) does not apply when local governments are acting as property owners; when, for example, city or county governments are leasing space for the installation of wireless equipment on rooftops, water towers, power poles, or other government-owned property.

The issues about locating wireless facilities have been subject to the most litigation when it is a denial of wireless facility and if it has the ultimate effect of prohibiting wireless service coverage in an area. The first complication of court cases deals with what "coverage" means. For example does the denial result in no cell phone or wireless Internet coverage at all, or is it denying coverage for one particular carrier (e.g., AT&T, Verizon, T-Mobile, or another)?

Two important United States Court cases are on this subject:

- *T-Mobile Central v. West Bloomfield Charter Township* .[16]
- *T-Mobile South LLC v. City of Roswell, Georgia*.[17]

In the first case, plaintiff-T-Mobile Central, LLC sued defendant-Bloomfield Charter Township after the township denied its application to put up a cell tower to address a gap in coverage. The application was to replace a 50-foot pole with a 90-foot pole, which would accommodate collocation by others, and it was to be disguised to look like a pine tree with antennas fashioned as branches. But it was not being located within one of two overlay zones where wireless facilities are permitted by right. On December 17, 2008, T-Mobile applied for a special use permit. Areas to the north, east, and west of the proposed location are residential subdivisions and there is a daycare to the south. Opposition was voiced at the planning commission public hearing and again when the permit came before the township board of trustees. The

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[15] Foster, Robert B.; "Like a Martian Machine: Recent Developments in Land Use Regulation of Cellular Telecommunications Facilities under the Telecommunications Act of 1996"; *Urban Lawyer*; Summer 2011; Vol. 43, Issue 3; p.789-799. 43 Urb. Law. 789 2010-2011.

[16] U.S. Court of Appeals Sixth Circuit (691 F.3d 794; 2012 U.S. App. LEXIS 17534, August 21, 2012). See also (Source: State Bar of Michigan e-Journal Number: 52498, September 19, 2012) Full Text Opinion: http://www.michbar.org/opinions/us_appeals/2012/082112/52498.pdf. This summary is from *Selected Planning and Zoning decisions: 2013 May 14, 2013* Page 3-4 and 6th Circuit provides good overview of the state of cell tower regulation in the federal courts on its way to its own decision by Gary Taylor, August 27, 2012: http://blogs.extension.iastate.edu/planningBLUZ/2012/08/27/6th-circuit-provides-good-overview-of-the-state-of-cell-tower-regulation-in-the-federal-courts-on-its-way-to-its-own-decison

[17] 574 U. S. ___ (2015). This summary is from *The Midwest Planning BLUZ*, Gary Taylor, *Esq.*, Iowa State University Extension, January 14, 2015,

http://blogs.extension.iastate.edu/planningBLUZ/2015/01/14/us-supreme-court-issues-opinion-on-in-writing-requirement-of-federal-telecommunications-act/). Copy of the Supreme Court Opinion: http://www.supremecourt.gov/opinions/14pdf/13-975_8n6a.pdf .

planning commission recommended and the township board followed the recommendation to deny the permit.

T-Mobile Central, LLC sued arguing the denial violated the FTA, 47 U.S.C. § 332 *et seq.* – specifically § 332(c)(7)(B)(i)(II). The focus of the challenge was "substantial evidence of what?" In other words, if there is a denial of an application to build a wireless facility, what must the substantial evidence in the record show[18] in order to avoid a violation of the federal code? The U.S. District court ruled in favor of T-Mobile Central, LLC.

The township appealed and the United States Circuit Court adopted the *MetroPCS, Inc. v. City & County of San Francisco* (9th Cir.)[19] standard and held that the denial of a single application can constitute a violation of the FTA (47 USC § 332 *et seq.*) § 332(c)(7)(B)(i)(II). That section of the FTA provides that

> [t]he regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof shall not prohibit or have the effect of prohibiting the provision of personal wireless services.

So the question was does the denial of a single application from T-Mobile constitute an effective prohibition? This was a question of first impression in the *Bloomfield* case. The Circuit Court looked to other federal circuit courts for guidance. The Fourth Circuit has held that only a general, blanket ban on the construction of all new wireless facilities would constitute an impermissible prohibition of wireless services; however, the large majority of circuit courts have rejected this approach. The 6th Circuit Court rejected it as well, stating that such a reading makes the "effective prohibition" language meaningless if it can only be triggered by an actual ban.

The two-part test (from the Ninth Circuit) adopted in this case is that there must be:

1. a showing of a 'significant gap' in service coverage and
2. some inquiry into the feasibility of alternative facilities or site locations.

The Circuit Court also rejected the township's other arguments that its denial of plaintiff's application was supported by substantial evidence. Rather, the court found the record was simply an expression of NIMBYism[20] or lay opinion contradicted by expert opinion.[21]

First, it held that its aesthetics objections were not based on substantial evidence, noting that general concerns from a few residents that the tower would be ugly or that a resident would not want it in his backyard are not sufficient. It also found that the township's height objections were not based on substantial evidence, noting that there was no evidence in the record to support its position that a 70-foot tower would have been suitable to satisfy the zoning ordinance's requirement that two wireless providers, engaged in reasonable communication, could be collocated at this particular site.

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[18] 47 U.S.C. § 332(c)(7)(B)(iii) provides: "Any decision by a State or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record."

[19] 259 F. Supp. 2d 1004, 2003 U.S. Dist. LEXIS 7319 (N.D. Cal., 2003)

[20] NIMBY is a tongue-in cheek acronym for "Not In My Back Yard" to express a community's desire to not allow a new land use near them.

[21] Taylor, Gary; 6th Circuit provides good overview of the state of cell tower regulation in the federal courts on its way to its own decision; August 27, 2012: http://blogs.extension.iastate.edu/planningBLUZ/2012/08/27/6th-circuit-provides-good-overview-of-the-state-of-cell-tower-regulation-in-the-federal-courts-on-its-way-to-its-own-decison

Second, the court concluded that township's sufficient need objections were not supported by substantial evidence, noting that, based on the terms of the township's own zoning ordinance, plaintiff introduced "voluminous amounts of evidence to support its position that there was a sufficient need for the tower."

Third, the court also rejected the township's argument that plaintiff failed to establish a significant coverage gap.

Instead, the court agreed with plaintiff-T-Mobile Central, LLC that the relevant evidence showed that the gap was "significant" because the "gap area includes both a major commuter highway and fully developed residential areas." The court found that both of these assertions were amply supported by plaintiff's engineer's affidavit. Finally, as to whether there were other feasible locations for plaintiff's tower, the court found that plaintiff "made numerous good-faith efforts to identify and investigate alternative sites that may have been less intrusive on the "values that the denial sought to serve," but that none were feasible, and defendant-township offered no other alternatives.

Thus, the United States Sixth Circuit Court upheld the district court, ruling in favor of T-Mobile Central, LLC.

The important part of this case for zoning in Michigan is the two-part test. The following is a summary:[22]

There must be:

1. a showing of a 'significant gap' in service coverage and
2. some inquiry into the feasibility of alternative facilities or site locations.

> As for the first part of this test – whether the "significant gap" in service focuses on the coverage of the applicant provider (T-Mobile in this case) or whether service by any other provider (Verizon, AT&T, Sprint, etc.) is sufficient – the 6th Circuit again found a split among federal circuit courts. The 2nd, 3rd and 4th Circuits have held that no "significant gap" exists if any "one provider" is able to serve the gap area in question. On the other hand, the 1st and 9th Circuits have rejected the "one provider" rule and adopted a standard that considers whether "a provider is prevented from filling a significant gap in its own service coverage. In 2009, the FCC issued a Declaratory Ruling that effectively supported the approach of the First and Ninth Circuits. The 6th Circuit chose to follow the FCC's lead. Finding that T-Mobile's position that it suffered a significant gap in coverage to be well-supported by documentary evidence and testimony from RF engineers, it concluded that the denial of T-Mobile's application "prevented [T-Mobile] from filling a significant gap in its own service coverage."
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> As for the second part of the test (alternative facilities) the 2nd, 3rd and 9th Circuits require the provider to show that "the manner in which it proposes to fill the significant gap in service is the least intrusive on the values that the denial sought to serve." The 1st and 7th Circuits, by contrast, require a showing that there are "no alternative sites which would solve the problem." The 6th Circuit chose to fall in line with the 2nd, 3rd and 9th "It is considerably more flexible than the 'no viable alternatives' standard, as [under the other standard] a carrier could endlessly have to search for different, marginally better alternatives. Indeed, in this case the Township would have had T-Mobile search for

[22] Taylor, Gary; 6th Circuit provides good overview of the state of cell tower regulation in the federal courts on its way to its own decision; August 27, 2012: http://blogs.extension.iastate.edu/planningBLUZ/2012/08/27/6th-circuit-provides-good-overview-of-the-state-of-cell-tower-regulation-in-the-federal-courts-on-its-way-to-its-own-decison

> alternatives indefinitely." The Court found that T-Mobile satisfied its burden under the "least intrusive" standard, having investigated a number of other specific options but determining they would have been "significantly more intrusive to the values of the community."

In the second court case, *T-Mobile South LLC v. City of Roswell, Georgia*, the United States Supreme Court issued a January 14, 2015 opinion on the "in writing" requirement of the FTA. In short:

1. Local government must provide written reasons for denying a cell tower application.
2. The denial and written reasons don't need to be in the same document; i.e., separate detailed minutes satisfy this requirement.
3. If they are in separate documents, however, they must be issued "essentially contemporaneously" (at the same time)

Point number three may require a change in practice for many local governments.

In more detail, T-Mobile South submitted an application to build a 108-foot cell tower on a vacant lot in a residential neighborhood in the city of Roswell, Georgia. The company proposed a tower designed to look like a pine tree, branches and all, though this one would have stood at least twenty feet taller than surrounding trees. The city's zoning department found that the application met the requirements of the relevant portions of the city code, and recommended approval of the application subject to several conditions. The city council then held a public hearing at which a T-Mobile South representative and members of the public spoke. Five of the six members of the city council then made statements, with four expressing concerns and one of those four formally moving to deny the application. That motion passed unanimously. Two days later, the city sent T-Mobile South a letter stating that its application had been denied. The letter did not provide reasons for the denial, but did explain how to obtain the minutes from the hearing. At that time, only "brief minutes" were available; the city council did not approve detailed minutes recounting the council members' statements until its next meeting, twenty-six days later.

T-Mobile filed suit, alleging that the council's decision violated the "in writing" requirement of the FTA that says that a denial of an application for a wireless facility "shall be in writing and supported by substantial evidence contained in a written record." The U.S. District Court agreed with T-Mobile. On appeal the Eleventh Circuit reversed. Noting that T-Mobile had received a denial letter and possessed a transcript of the hearing that it arranged to have recorded, the Eleventh Circuit found that this was sufficient to satisfy the "in writing" requirement.

The US Supreme Court first determined that "supported by substantial evidence contained in a written record" imposes upon local governments a requirement to provide reasons when they deny applications to build cell towers. It would be extremely difficult for a reviewing court to carry out its review of a local decision if localities were not obligated to state their reasons in writing. The Court went on to stress, however, "that these reasons need not be elaborate or even sophisticated, but rather…simply clear enough to enable judicial review." In this regard, it is clear that Congress meant to use the phrase "substantial evidence" simply as an administrative "term of art" that describes how an administrative record is to be judged by a reviewing court. It is not meant to create a substantive standard that must be proved before denying applications.

Local governments are not required to provide their reasons in the denial notice itself, but may state those reasons with sufficient clarity in some other written record such as in detailed minutes. At the same time, the Court agreed with the Solicitor General's brief that "the local government may be better served by

including a separate statement containing its reasons . . . . If the locality writes a short statement providing its reasons, the locality can likely avoid prolonging the litigation – and adding expense to the taxpayer, the companies, and the legal system – while the parties argue about exactly what the sometimes voluminous record means."

The Court further determined, however, that because the FTA requires the recipient of a denial to seek judicial review within 30 days from the date of the denial, the denial and written reasons, if contained in separate documents, must be issued "essentially contemporaneously."

Because an entity may not be able to make a considered decision whether to seek judicial re-view without knowing the reasons for the denial of its application, and because a court cannot review the denial without knowing the locality's reasons, the locality must provide or make available its written reasons at essentially the same time as it communicates its denial.

The Court observed that this rule ought not to unduly burden localities given the range of ways in which localities can provide their reasons. Noting that the FCC "shot clock" declaratory ruling (discussed on page 10+) allows localities 90 days to act on applications to place new antennas on existing towers and 150 days to act on other siting applications, the Court suggested that "if a locality is not in a position to provide its reasons promptly, the locality can delay the issuance of its denial within this 90- or 150-day window, and instead release it along with its reasons once those reasons are ready to be provided. Only once the denial is issued would the 30-day commencement-of-suit clock begin."

The Court concluded that it was acceptable for City of Roswell to provide its denial and written reasoning (in the form of detailed minutes) in separate documents, but did not issue these documents "essentially contemporaneously." As such, the city did not comply with the statutory obligations of the FTA. The Court remanded the case to the Eleventh Circuit to address the question of the appropriate remedies.

Deadlines for action

When an application is received for a permit to place, construct, or modify wireless service antennas, towers, equipment and accessory facilities the action on the application must be "within a reasonable period of time"[23] according to the FTA. This leaves the question of what is a "reasonable period of time." A 2009 FCC administrative ruling[24] provides the following interpretation:

- A delay can happen if the application is incomplete– but must notify the applicant within 30 days of receiving the application that the application is incomplete.
- Must act on the application within 90 days of receiving a complete application when it is an application for a collocation of an antenna on an existing structure.
- Must act on the application within 150 days of receiving a complete application when it is an application for a new facility.

If a local or state government does not act within these time lines the applicant can bring action against the government under federal law. This ruling on deadlines has become known as the "shot-clock ruling."

[23] 47 U.S.C. 332; §332.(c)(7)(B)(ii).

[24] Federal Communications Commission; WT Docket No. 08-165; Declaratory Ruling; Nov. 18, 2009.

On May 20, 2013 the United States Supreme Court upheld the FCC's shot clock ruling for local decisions on cell tower permits. A summary of that case is provided in Iowa State University Associate Professor Gary Taylor Esq.'s blog.[25]

City of Arlington, Texas v. Federal Communications Commission

(U.S. Supreme Court, May 20, 2013)

> [The] U.S. Supreme Court issued its opinion, which effectively validates the FCC's shot clock declaratory ruling. A summary of the Court's opinion:
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> The Federal Telecommunications Act (FTA) requires state or local governments to act on siting applications for wireless facilities "within a reasonable period of time after the request is duly filed." Relying on its broad authority to implement the FTA, the Federal Communications Commission (FCC) issued a Declaratory Ruling (the shot clock) concluding that the phrase "reasonable period of time" is presumptively (but rebuttably) 90 days to process an application to place a new antenna on an existing tower and 150 days to process all other applications. The cities of Arlington and San Antonio, Texas, argued that the Commission lacked authority to interpret the language "within a reasonable period of time" because doing so amounted to determining the jurisdictional limits of its own authority – a task exclusively within the province of Congress. The Fifth Circuit Court of Appeals applied precedent from the case of Chevron U. S. A. Inc. v. Natural Resources Defense Council, Inc., 467 U. S. 837, to that question. Finding the statute ambiguous, it upheld as a permissible construction of the statute the FCC's view that the FTA's broad grant of regulatory authority empowered it to adopt the Declaratory Ruling.
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> In a 6-3 decision, the U.S. Supreme Court affirmed the Fifth Circuit. Writing for the majority, Justice Scalia found no distinction between an agency's "jurisdictional" and "nonjurisdictional" interpretations. When a court reviews an agency's interpretation of a statute it administers, the question is always, simply, whether the agency has stayed within the bounds of its statutory authority. The "jurisdictional-nonjurisdictional" line is meaningful in the judicial context because Congress has the power to tell the courts what classes of cases they may decide—that is, to define their jurisdiction—but not to prescribe how they decide those cases. For agencies charged with administering congressional statutes, however, both their power to act and how they are to act is authoritatively prescribed by Congress, so that when they act improperly, no less than when they act beyond their jurisdiction, what they do is beyond their authority and can be struck down by a court. Under Chevron, a reviewing court must first ask whether Congress has directly spoken to the precise question at issue; if so, the court must give effect to Congress' unambiguously expressed intent. If, however the statute is silent or ambiguous, the court must defer to the administering agency's construction of the statute so long as it is permissible. Because the question is always whether the agency has gone beyond what Congress has permitted it to do, there is no principled basis for carving out an arbitrary subset of "jurisdictional" questions from the Chevron framework.
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> The Court rejected Arlington's contention that Chevron deference is not appropriate here because the FCC asserted jurisdiction over matters of traditional state and local concern. The case does not implicate any notion of federalism: The statute explicitly

[25] http://blogs.extension.iastate.edu/planningBLUZ. Taylor is an Associate Professor and Community and Regional Planning Extension Specialist with Iowa State University Extension.

> supplants state authority, so the question is simply whether a federal agency or federal courts will draw the lines to which the States must hew.
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> A general conferral of rulemaking authority validates rules for all the matters the agency is charged with administering. In this case, the preconditions to deference under Chevron are satisfied because Congress has unambiguously vested the FCC with general authority to administer the Communications Act through rulemaking and adjudication, and the agency's interpretation of "reasonable period of time" at issue was promulgated in the exercise of that authority.

[brackets added]

Since 1996, FTA Section 332(c)(7)(B) has required local governments to act on applications for personal wireless service facilities within a "reasonable period of time" (shot clock). The 2009 FCC order set presumptive time limits based on what the FCC considers to be reasonable. Under the ruling, local governments have 90 days to act on requests for collocations (placing personal wireless service antennas on existing towers) and 150 days for all other applications. The ability of the FCC to set these rules governing local review was approved by the US Supreme Court in 2013, above.

The 2014 FCC ruling established a "specific and absolute timeframe" for processing of requests under Section 6409(a): 60 days, including review to determine whether an application is complete. If an application has not been approved within 60 days from the date of filing (with the exceptions noted below), the request will be deemed granted. The "deemed granted" becomes effective after the applicant notifies the local government in writing that the applicant is invoking this right.

The 60-day clock may be extended only (1) by mutual agreement between the local government and applicant, or (2) by a local government determination that the application is incomplete. Under (2), the local government must inform the applicant of the incompleteness within 30 days of the initial filing, and must clearly and specifically delineate in writing the missing information. The clock will resume when the information is provided, but may be stopped again if the local government notifies the applicant within 10 days that the application remains incomplete. These notifications cannot contain requests for new information beyond what was previously requested.

How does the 2009 ruling (pages 10+ and 12 square with the 2014 FCC Ruling, particularly with regard to the deadlines for action on collocations? The FCC first pointed out that Section 332(c)(7) deals only with personal wireless service facilities (cell phone equipment), which is a much narrower focus than "wireless facilities" – the focus of Section 6409(a) of the Spectrum Act. The FCC also noted that some collocation applications under Section 332(c)(7) do not constitute "eligible facilities requests" under Section 6409(a). Recognizing that the provisions cover different (though overlapping) types of applications, the FCC declined to make any "changes or clarifications" to the 2009 ruling that would harmonize it with the October 21 ruling. Local governments are thus left to muddle through the distinctions in collocation applications to determine the appropriate time line to which they must adhere.

With regard to collocations, the 60-day deadline (from date application is filed) found in the Spectrum Act technically only applies to collocations that do not result in a substantial change to the physical dimensions of the existing facility as that term is defined in the 2014 FCC ruling. So for example, deploying a new antenna array that protrudes more than 6 feet from the edge of an existing tower located in the public ROW would not fall under the new ruling (with a 60-day deadline) because that would be a substantial change to the physical dimensions of the tower. Instead, such an application would be covered by the 90-day deadline for collocations as set forth in the 2009 FCC ruling.

There may also be hair-splitting required by local governments to know whether the 60-day or 90-day deadline applies in any given circumstance. Site plans are not always as detailed as would be necessary

to apply the FCC rules, equipment is constantly evolving in a way that muddies the interpretation of the rules, and so on.

At a minimum local governments should require wireless industry applicants to clearly state in their applications whether they believe the 60-day (collocation involving no substantial change) or 90-day (collocation that is a substantial change) deadline applies, and provide substantiating details sufficient for the local government to make its own judgment. If an application is mistakenly treated as one with a 90-day deadline but belongs in the 60-day category, however, it must be deemed automatically approved any time after the 60th day, upon notification by the applicant. Disagreement over the 60- versus 90-day deadline may result in litigation. One might assume the wireless industry will want to establish precedents for putting more types of modifications into the 60-day deadline category.

One potential solution for local governments is a safe approach – simply apply the 60-day deadline to all collocation requests, whether or not they meet one of the tests for determining substantial change.

Radio frequency emissions

The FTA also prohibits state and local government from regulating, or prohibiting wireless service facilities on the basis of "environmental effects of radio frequency emissions," if those facilities comply with the FCC's regulations on emissions.[26]

In short the FTA assumes their existing regulations protect the public health, and that conclusion must be treated as a "given." One attorney[27] advises members of the public may express concerns about health effects at a planning commission or zoning board of appeals public hearing, and that is okay. But the administrative body (planning commission or zoning board of appeals) cannot use those health concerns as part of the record to turn down an application. In other words, the health concerns expressed at a public hearing should not be included in the administrative body's findings of fact.

The FTA preempts even considering such health effects claims, because regulation to cover those concerns is already done at the federal level.

Property values

Another concern often surrounding placement of wireless facilities, towers and antennas focuses on property values of nearby land. For a case to be made that there is an adverse impact on property values there must be expert testimony on the record (at the public hearing). It is best to have that expert be a qualified land appraiser who provides expert testimony reporting on his or her study and findings for that specific site and surrounding land. A mortgage banker's expert testimony about that specific site and surrounding land may also be adequate.[28]

The bottom line is claims about property value loss must be based on real data prepared by experienced professionals in that field. Also, the data must be based on research on that specific site – not general studies or reports. Since at least 1996 courts have been consistent in the requirement that one needs substantial evidence by a competent expert using real, local, data.[29]

[26] 7 U.S.C. 332; §332.(c)(7)(B)(iv)

[27] Donna J. Pugh; Foley & Lardner LLP, Chicago office, presenting at the APA national conference, April 15, 2013.

[28] Donna J. Pugh; Foley & Lardner LLP, Chicago office, presenting at the APA national conference, April 15, 2013.

[29] Donna J. Pugh; Foley & Lardner LLP, Chicago office, presenting at the APA national conference, April 15, 2013.

Spectrum Act changes and 2014 FCC Rule

The changes to the FTA from amendments in the Spectrum Act are considered major. The purpose of that section of the Spectrum Act was to minimize the amount of time and approvals for collocation on existing wireless facilities and towers as a means to improve high-speed internet as an economic development goal.

According to the Spectrum Act:

> state or local government may not deny, and *shall approve*, any *eligible facilities request* for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.[30] [italics added]

The phrase "*shall approve*" leaves open the question as to whether approval is done by a zoning permit for a permitted use (use by right), or if it can be for a zoning special use permit. The FCC 2013 *Guidance*[31] suggests the approval is without conditions or standards. The Wireless Telecommunications Bureau of the FCC 2013 Guidance are non-binding on local government or future FCC actions.

> The term "eligible facilities request" means any request for modification of an existing wireless tower or base station that involves—
> (A) collocation of new transmission equipment;
> (B) removal of transmission equipment; or
> (C) replacement of transmission equipment."[32]

So to determine if it is an *eligible facilities* request a state or local government must determine if it includes any of the following. If it does, it is an *eligible facilities request*:

- *Wireless tower*,
- *Base station*,
- *Collocation* of *new transmission equipment*,
- *Replacement* of *transmission equipment*,
- Removal of *transmission equipment*,
- *Existing*, or
- A *substantial change* to the physical dimensions of the wireless tower or base station.

First an "eligible facilities request" is defined in the Spectrum Act as any request for modification of an existing wireless tower or base station that involves (a) collocation of new transmission equipment; (b) removal of transmission equipment; or (c) replacement of transmission equipment. Other than this term, however, Congress did not provide definitions for any other words or phrases.

The 2014 FCC Rule defines *Wireless services, wireless tower or base station, transmission equipment - General applicability* with the following. The FCC began by interpreting Section 6409(a) to apply broadly to equipment used "in connection with any FCC-authorized wireless communications service." This is

[30] Section 6409.(a)(1).

[31] FCC Public Notice DA 12-2047 "Wireless Telecommunications Bureau Offers Guidance on Interpretation of Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012"; January 25, 2013. (Published as a followup to clarify issues in the Spectrum Act.)

[32] Section 6409.(a)(2); *Nationwide Programmatic Agreement for Collocation of Wireless Antennas* (2001), (see 47 C.F.R,. Part 1, Appendix B); and *Wireless Telecommunications Bureau's "Guidance on Interpretation of Section 6409(a) of the Middle Class Tax Relief and Job Creation Act* of 2012, January 25, 2013 (D.A. 12-2047).

much broader than simply cell phone equipment. The FCC found that Congress has used the term "personal wireless services" in the past to refer to cell phone services, and Congress's choice of "wireless services" instead established an intent to apply 6409(a) broadly to collocations on infrastructure that supports licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast, and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband.

This part of the new rule itself has significant potential implications for local planners and communities. Many communities will likely be required to update local ordinances and practices in order to comply. Most local ordinances either do not address these types of facilities at all, or address them in a way that will be inconsistent with the FCC ruling.

In more detail each of these are defined in the 2014 FCC Ruling as:

- *Wireless tower*: "Wireless tower" or "Tower" is defined in the 2014 Rule as "any structure built for the sole or primary purpose of supporting any Commission-licensed or authorized antennas and their associated facilities." The "sole or primary purpose" language narrows the applicability of the act to exclude structures similar to a tower, but broadens it to include all types of wireless transmission equipment.
- *Base station*: "Base station" includes "a structure that currently supports or houses an antenna, transceiver, or other associated equipment that constitutes part of a base station at the time of the application is filed." It encompasses support equipment "in any technological configuration." The FCC considers this definition "sufficiently flexible to encompass…future as well as current base station technologies and technological configurations, using either licensed or unlicensed spectrum." This definition also rejects the position that "base station" refers only to the equipment compound associated with a tower and the equipment located on it; thus the FCC considers the broad array of structures necessary to the deployment of wireless communications infrastructure to fall under this definition, whether or not the structures are collocated with a tower.
- *Collocation of new transmission equipment*: The FCC interpreted "collocation" to mean "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." This definition encompasses the initial mounting of equipment on a tower or base station. In crafting this definition the FCC rejected the argument of local governments that collocation should be limited to the mounting of equipment on structures that already have transmission equipment on them. "Modification" "includes collocation, removal, or replacement of an antenna or any other transmission equipment associated with the supporting structure."
- *Replacement of transmission equipment*: "Replacement" is interpreted to include only the transmission equipment, and not the structure on which the equipment is located, even under the condition that replacement would not substantially change the physical dimensions of the structure. The FCC acknowledged that replacement of an entire structure might affect local land use values differently than the addition, removal, or replacement of transmission equipment only.
- *Removal of transmission equipment*: For the "transmission equipment," in the three bullet points above: The FCC defined "transmission equipment" as

> any equipment that facilitates transmission for any Commission-licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas and other relevant equipment associated with and necessary to their operation, including coaxial or fiber-optic cable, and regular and backup power supply.

It includes "equipment used in any technological configuration associated with any Commission-authorized wireless transmission" such as those listed here.

- *Existing*: The word "existing" is an important modifier that defines the applicability of the 2014 FCC Ruling. The ruling only applies to modifications to "existing" wireless towers and base stations. At what point in time does a tower become an "existing" tower? Any tower in place at the time of the ruling? Any tower, once built? The FCC determined that the term

> existing requires that wireless towers or base stations have been reviewed and approved under the applicable local zoning or siting process or that the deployment of existing transmission equipment on the structure received another form of affirmative state or local regulatory approval.

If a tower or base station was built or installed without proper review it is not an "existing" tower, but if it was "lawfully constructed" (nonconforming) it is an "existing" tower.

- *A substantial change* to the physical dimensions of the wireless tower or base station: In crafting guidance for what constitutes a "substantial change" to the physical dimensions of a tower or base station, the FCC chose to adopt an objective, measurable standard as opposed to allowing local governments to conduct more individualized, contextual consideration. In doing so, the FCC rejected the argument that in some instances a small physical change could lead to a substantial change in impact. A "substantial change" is thus any of the following:

  - For towers outside a public right-of-way,[33] a "substantial change"

  ▸increases the height of the tower by more than 10%, or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet, whichever is greater, or

  ▸protrudes from the edge of the tower more than 20 feet, or more than the width of the tower structure at the level of the appurtenance, which ever is greater.

  - For towers in a right-of-way, and all base stations, a "substantial change"

  ▸increases the height of the tower or base station by more than 10% or 10 feet, whichever is greater, or

  ▸protrudes from the edge of the structure more than 6 feet

Changes in height are to be measured from the original support structure in cases where the deployments are or will be separated horizontally. In other circumstances, changes in height are to be measured from the dimensions of the original tower or base station and all originally approved appurtenances, and any modifications approved prior to the passage of the Spectrum Act. The changes are measured cumulatively; otherwise a series of small changes could add up to a cumulative change that exceeds the "substantial change" threshold.

- For all towers and base stations, a "substantial change"

  - involves installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four cabinets;
  - entails any excavation or deployment outside the current site of the tower or base station;

[33] As used here, "right-of-way" means a right-of-way that is designated by a Federal, State, local, or Tribal government for communications towers, above-ground utility transmission or distribution lines, or any associated structures and equipment and it is in active use for such designated purposes.

- defeats the existing concealment elements of the tower or base station; or
- does not comply with conditions associated with the prior approval of construction or modification of the tower or base station unless the non-compliance is due to any of the "substantial change" thresholds identified above.

State and local governments may continue to enforce and condition approval on compliance with generally applicable building, structural, electrical, and safety codes and with other laws codifying objective standards reasonably related to health and safety.

Michigan statutes

Michigan Zoning Enabling Act

In 2012 the Michigan legislature amended the Michigan Zoning Enabling Act (MZEA) to add a section 514.[34]

Permitted use

That section declares that wireless communications equipment is a permitted use of property, not subject to special use permit approval if the following requirements are met:

(a) The wireless communications equipment will be collocated on an existing wireless communications support structure or in an existing equipment compound.
(b) The existing wireless communications support structure or existing equipment compound is in compliance with the local unit of government's zoning ordinance or was approved by the appropriate zoning body or official for the local unit of government.
(c) The proposed collocation will not do any of the following:
    (i) Increase the overall height of the wireless communications support structure by more than 20 feet or 10% of its original height, whichever is greater.
    (ii) Increase the width of the wireless communications support structure by more than the minimum necessary to permit collocation.
    (iii) Increase the area of the existing equipment compound to greater than 2,500 square feet.
(d) The proposed collocation complies with the terms and conditions of any previous final approval of the wireless communications support structure or equipment compound by the appropriate zoning body or official of the local unit of government.

It is important local ordinances are now consistent with the 2014 FCC Rule concerning "substantial change" (page 16). That may be an issue with state statute, here.

Special land use type 1

If wireless communications equipment is collocated ((a), above), and the structure is already in compliance with zoning ((b), above), but increases the height of the structure more than 20 feet or 10%

[34] PA 143 of 2012 amended the MZEA by adding MCL 125.3514, effective May 24, 2012.

(whichever is greater) ((c)(i), above), increases width more than necessary ((c)(ii), above), and increases the existing compound area over 2,500 square feet ((c)(iii), above), and does not comply with previous approval ((d), above) the application may be handled as a special use permit.

But if it is handled as special use permit (the local unit of government can still choose to treat the application as a permitted use[35]), the application shall include a site plan,[36] map of the property, etc., and other information specifically required by the zoning ordinance.[37] A special use permit shall be considered complete if the local unit of government (zoning administrator) has not ruled otherwise within 14 business days of the application being received.[38] The fee for the special use permit shall not be more than the actual cost to process the application, or $1,000, whichever is less.[39] Action (approve, deny, approve with conditions) of a special use permit for wireless communications shall be taken within 60 days of a complete application. If action has not taken place within 60 days the special use permit shall be considered approved as submitted.[40] Any action that included conditions of approval can only have conditions that directly relate to the existing zoning ordinance, other local ordinances, and applicable state and federal laws.[41]

Special land use type 2

If wireless communications equipment is not being collocated ((a), above) on an existing structure the application may be handled as a special use permit.

But if it is handled as special use permit (the local unit of government can still choose to treat the application as a permitted use[42]), the application shall include a site plan,[43] map of the property, etc., and other information specifically required by the zoning ordinance.[44] A special use permit shall be considered complete if the local unit of government (zoning administrator) has not ruled otherwise within 14 business days of the application being received.[45] The fee for the special use permit shall not be more than the actual cost to process the application, or $1,000, whichever is less.[46] Action (approve, deny, approve with conditions) of a special use permit for wireless communications shall be taken within 90 days of a complete application. If action has not taken place within 90 days the special use permit shall be considered approved as submitted.[47] Any action that included conditions of approval can only have

[35] MCL 125.3514(9).

[36] MCL 125.3501.

[37] MCL 125.3502(1) and 125.3504.

[38] MCL 125.3514(4).

[39] MCL 125.3514(5).

[40] MCL 125.3514(6).

[41] MCL 125.3514(7).

[42] MCL 125.3514(9).

[43] MCL 125.3501.

[44] MCL 125.3502(1) and 125.3504.

[45] MCL 125.3514(4).

[46] MCL 125.3514(5).

[47] MCL 125.3514(6).

conditions that directly relate to the existing zoning ordinance, other local ordinances, and applicable state and federal laws.[48]

Definitions

In the MZEA the following terms have specific meanings:[49]

> Collocate means to place or install wireless communications equipment on an existing wireless communications support structure or in an existing equipment compound. "Collocation" has a corresponding meaning.
>
> Equipment compound means an area surrounding or adjacent to the base of a wireless communications support structure and within which wireless communications equipment is located.
>
> Wireless communications equipment means the set of equipment and network components used in the provision of wireless communications services, including, but not limited to, antennas, transmitters, receivers, base stations, equipment shelters, cabinets, emergency generators, power supply cables, and coaxial and fiber optic cables, but excluding wireless communications support structures.
>
> Wireless communications support structure means a structure that is designed to support, or is capable of supporting, wireless communications equipment, including a monopole, self-supporting lattice tower, guyed tower, water tower, utility pole, or building.

State Police

Local zoning cannot regulate any part of the Michigan State Police radio communication system.[50] The statute provides for the State Police to notify the local zoning authority of the proposed facility, and a 30 day period where the zoning authority can issue a special use permit or propose an alternative location. If the special use permit is not issued within 30 days, or the alternative location does not meet siting requirements the state police can proceed with the first proposed site.

Federal code versus state statute

Keep in mind, the FTA speaks to regulation by both local and state government. That means, in part, when the state statute and federal code contravene each other, the federal code supersedes. But when the state statute and federal code have different requirements, which do not contravene each other, than the stricter of the two should be followed.

Some, not all, examples of this are:

Federal code requires 90 and 150 day deadlines for review of different types of wireless communication applications. State statute requires 60 or 90 day deadlines for special use permit applications. So the shorter periods would be the deadlines Michigan zoning authorities must follow.

[48] MCL 125.3514(7).

[49] Quoting MCL 125.3514(10).

[50] P.A. 152 of 1929, as amended (the Michigan State Police Radio Broadcasting Stations Act, M.C.L. 28.281 *et seq.*).

Concerning collocation of a new antenna on an existing structure that does not substantially change the structure's physical dimensions: State statute requires most collocation applications be handled as a permitted use, or use by right zoning request. The Spectrum Act requires that such application requests shall be approved. In this case both the state and federal requirements must be followed.

Both federal and state law appear to have a 10% or 20 foot aspect to increases in height for collocation. Both raise questions (page 16) on how this might be applied. While lack of clarity in Michigan law can be dealt with by providing greater clarity in the local zoning ordinance, interpretation of federal code may need to rely on the 2014 FCC Rule.

Finally, note the definition of collocation found in Michigan statute is different than the definition currently in use by the federal government.[51] The more restrictive of the two would be followed, but there may be instances where these two contravene each other, in which case the federal requirements prevail.

It is unlikely the above calls attention to all possible issues between federal and Michigan requirements. There could be others not highlighted here.

Advice

Review your existing zoning ordinance and other police power ordinances, if any, to make sure your local regulations are not contravening these federal and state laws. Consult with a municipal attorney who is experienced in municipal, planning and zoning law when changing local ordinances or reviewing a wireless communication permit application.

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[51] *Nationwide Programmatic Agreement for Collocation of Wireless Antennas* (2001), (see 47 C.F.R,. Part 1, Appendix B)

Appendix A: Resources

There are three main resources to consider:

- National League of Cities *Wireless Facility Siting Model Chapter for local ordinances*, March 2015.
- Coversheet for the above model chapter.
- National League of Cities *Checklist* for wireless communication permit processing.

These can be found at http://lu.msue.msu.edu/pamphlets.htm#Wireless. However the above documents are written from a national perspective, and do not take into account Michigan statute.

Other resources:

Brian S. Grossman, Prince Lobel Tye LLP, 100 Cambridge Street, Suite 2200, Boston Mass.; "Middle Class Tax Relief and Job Creation Act of 2012 - What is it and what does it have to do with wireless communications?" American Planning Association Conference Presentation April 15, 2013.

Donna J. Pugh, Foley & Lardner LLP, 321 North Clark Street, Suite 2800, Chicago, Ill; American Planning Association Conference Presentation April 15, 2013.

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http://blogs.extension.iastate.edu/planningBLUZ/2014/11/30/fcc-ruling-on-collocation-explained-part-1/

http://blogs.extension.iastate.edu/planningBLUZ/2014/12/02/fcc-ruling-on-collocation-explained-part-ii/

http://blogs.extension.iastate.edu/planningBLUZ/2014/12/03/fcc-ruling-on-collocation-explained-part-iii/

http://blogs.extension.iastate.edu/planningBLUZ/2014/12/04/fcc-ruling-part-iv-shot-clock-clarification-and-other-matters/

William A. Worth, Prince Lobel Tye LLP, 100 Cambridge Street, Suite 2200, Boston Mass.; "Broadband and Wireless Delivery: The FCC Shot-Clock Rule"; American Planning Association Conference Presentation April 15, 2013.

Mark A. Wyckoff, FAICP, Director, Planning and Zoning Center at MSU and Senior Associate Director, Land Policy Institute; Overview of Proposed and Recently Enacted [Michigan] Legislation, Michigan Citizen Planner Advanced Academy, June 13, 2013.