


<p>Staff Report</p>  <p>Zoning & Land Regulation Committee</p>	<u>Public Hearing:</u> June 18, 2024		Conditional Use 02622
	<u>Zoning Amendment Requested:</u> TO CUP: 170' self-support communication tower with 3' lightning rod		<u>Town, Section:</u> DUNN, Section 12
	<u>Size:</u> 0.22 Acres	<u>Survey Required:</u>	<u>Applicant:</u> DANIEL L GAULRAPP
	<u>Reason for the request:</u> 170' self-support communication tower with 3' lightning rod		<u>Address:</u> SOUTH OF 3316 ELVEHJEM RD



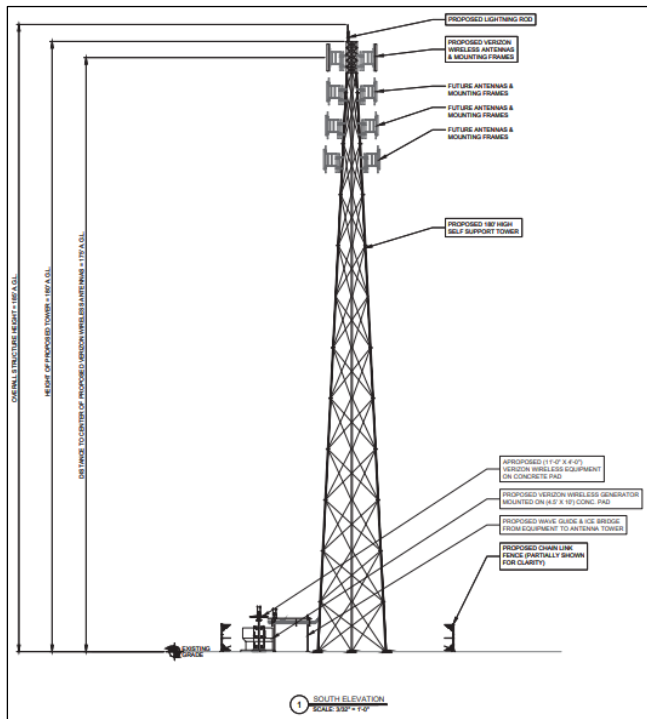
DESCRIPTION: Dish Wireless and Iron Mountain Towers (“TowerKing”) are requesting approval of a Conditional Use Permit (CUP) for a 170’ self-support, lattice-style communication tower (173’ with lightning rod) that will allow Dish to provide its cellular service to the surrounding area. Applicants have negotiated a lease agreement for a ~9,500sqft area on a 2 acre portion of tax parcel #[061012280004](#), which is zoned FP-1 (Farmland Preservation). The property is located south of the owner’s (Gaulrapp) residence at 3316 Elvehjem Rd and immediately west of a public access point to the Door Creek Wildlife Area at 3285 Elvehjem Road, in section 12 of the town of Dunn. This proposal is being made as an alternative to previous [CUP 2583](#), which was withdrawn by the applicants due to concerns over the close proximity of existing and planned future residential development in the Village of McFarland.

Applicants have provided a sworn statement by an engineer for Dish indicating that the new tower is needed at the proposed location because there are no existing towers or other collocation options within or near their identified search ring. The tower would be owned and operated by TowerKing, with Dish as the anchor tenant at 160’ on the tower. The tower would include up to 3 additional collocation spots at lower elevations for other providers to potentially utilize.

The proposal has been reviewed by a third party radio frequency engineering firm, CityScape Consultants. CityScape’s review focuses primarily on determining if the proposed tower meets the requirements of the county ordinance as well as other applicable state and federal laws, and is justified based on supporting technical documentation. CityScape’s findings and recommendations are summarized below on pages 4-5.

Action on tower CUPs must be completed within a state-imposed 90-day timeframe, unless the applicant and county agree to extend the timeframe for action. Action on the CUP request is due by Monday, July 22, 2024.

CONDITIONAL USE PERMIT DECISION MAKING: Conditional uses are those uses which, because of their unusual nature and potential for impacts on neighboring lands, public facilities, the environment or general welfare, warrant special consideration and review. The zoning ordinance includes specific requirements and standards for review and approval of conditional use permits.



Proposed 180' lattice tower

In order to obtain a Conditional Use Permit, an applicant must provide **substantial evidence** to demonstrate that the application, and all requirements and conditions established by the county relating to the conditional use, are or shall be satisfied. Substantial evidence means, *“facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.”*

Prior to granting or denying a conditional use, the town board, if it chooses to act, and zoning committee shall make written findings of fact based on evidence presented and issue a determination whether the proposed conditional use, with any recommended conditions, meets all of the following standards:

- General standards for approval under s. [10.101\(7\)\(d\)](#)
- Any prescribed standards specific to the applicable zoning district – none apply in this case
- Any prescribed standards specific to the particular use under s. 10.103 - in this case, section [10.103\(9\)](#)

The town board and/or zoning committee must deny a conditional use permit if either/both find that the standards for approval are not met, and must approve if either/both find that the standards for approval are met.

The decision to approve or deny a conditional use permit must be supported by substantial evidence. Any conditions imposed must be based on substantial evidence, related to the purpose of the ordinance, reasonable, and, to the extent practicable, measurable.

The town board and zoning committee must review the proposed conditional use against all of the following standards for approval.

General Standards for Approval of a Conditional Use Permit

1. That the establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, comfort or general welfare;
2. That the uses, values and enjoyment of other property in the neighborhood for purposes already permitted shall be in no foreseeable manner substantially impaired or diminished by establishment, maintenance or operation of the conditional use;

3. That the establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district;
4. That adequate utilities, access roads, drainage and other necessary site improvements have been or are being made;
5. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets;
6. That the conditional use shall conform to all applicable regulations of the district in which it is located.
7. That the conditional use is consistent with the adopted town and county comprehensive plans.
8. If the conditional use is located in a Farmland Preservation Zoning district, the town board and zoning committee must also make the findings described in s. 10.220(1).

Dane County communication tower ordinance: Approval of a Conditional Use Permit is required for a new or substantially modified communication tower. In addition to the review procedures and standards for all Conditional Use permits, communication tower applications are subject to the provisions of the Dane County communication tower ordinance, section [10.103\(9\)](#). The purpose of the ordinance is to ensure that facilities are sited in a manner that:

1. Protects and promotes public health, safety, community welfare and the quality of life in Dane County as set forth within the goals, objectives and policies of the Dane County Comprehensive Plan, this ordinance, and s. 66.0404 Wis. Stats;
2. Respects the rights and interests of towns, neighboring property owners, and existing land uses on adjoining properties in the decision making process;
3. Recognizes the public necessity for telecommunication facilities and the numerous benefits and opportunities a robust wireless infrastructure make possible for county residents, including improved public safety, efficient production and distribution of goods and services, access to educational resources, and economic development opportunities;
4. Allows appropriate levels of service to be obtained throughout the County, including expansion to rural areas seeking access to personal communications and broadband internet services;
5. Minimizes the number of transmission towers throughout the County;
6. Encourages the joint use of new and existing telecommunication facilities as a preferred siting option;
7. Ensures that all telecommunication facilities, including towers, antennas, and ancillary facilities are located and designed to minimize the visual and environmental impact on the immediate surroundings and throughout the county;
8. Avoids potential damage to adjacent properties from tower failure or ice falls through sound engineering and careful siting of structures; and
9. Provides a public forum to assure a balance between public concerns and private interests in establishing commercial telecommunications and related facilities.

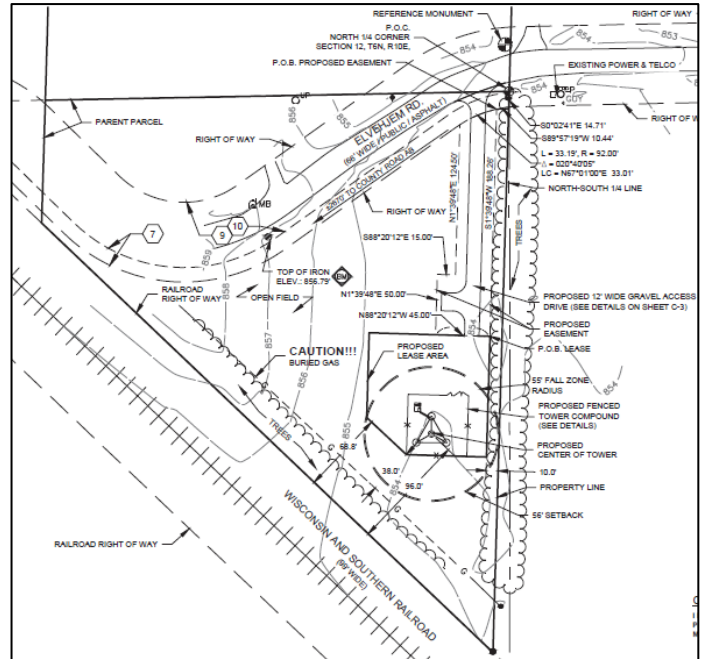
Dane County's ordinance has robust application requirements for communication tower proposals. In addition to providing a detailed statement of intent, site and operations plans, and responses demonstrating how the proposal satisfies the standards for approval of a CUP, applicants must provide technical documentation verifying the need for the tower at the requested height and location. This technical information is provided directly to, reviewed and fact checked by the 3rd party engineering firm, CityScape Consultants. The application also includes photo simulations to help decision makers and other interested parties assess the potential aesthetic impact of the proposed tower. The application packet is available on the county's legistar website, [here](#).

RELEVANT FACTS & INFORMATION

Location, size, existing use and characteristics of subject property: The subject property is a ~2.5 acre tax parcel located south of the owner's (Gaulrapp) residence at 3316 Elvehjem Rd and immediately west of a public access point to the Door Creek Wildlife Area at 3285 Elvehjem Road, in section 12 of the town of Dunn. The property is within ¼ mile of the Village of McFarland municipal boundary. Principal existing use of the property is agriculture/open space. The proposed tower site would be located in an area of existing cropland. The ~9,500sqft CUP area is at an approximate elevation of 854 feet above mean sea level. The center of the tower would be setback from Elvehjem Road by approximately 226', the westerly property line by 56', and 96' from the southerly property line, which abuts the Wisconsin and Southern Railroad right-of-way.

The applicant has provided an [engineering certification](#) indicating that the designed fall radius of the tower is 55'.

Current zoning and applicable district regulations: The property is zoned FP-1 (Small Lot Farmland Preservation). Communication towers are listed as a conditional use in this district. Conditional uses are subject to the General standards for approval under s. [10.101\(7\)\(d\)](#), along with any prescribed standards specific to the particular use under s. 10.103 - in this case, section [10.103\(9\)](#)



Surrounding land uses / neighborhood: Surrounding land uses include agriculture / open space and scattered rural residences. There are 11 residences, including the owner of the subject property, located within ½ mile of the proposed site. The closest residence is located just over 500' away at 3333 Elvehjem Road, west of the railroad right-of-way.

No sensitive environmental features or resource protection areas located on the proposed CUP site.

There are no existing communication towers located within approximately 1.5 miles of the subject property.

The applicant has provided notification of the intent to construct a tower to airports within 5 miles of the site.

Utilities, access, drainage, and other necessary site improvements: The applicant proposes a 50' x 50' fenced compound around the tower site. Access would be to Elvehjem Road via a new ~188' driveway along with easterly property line. No structural development, signage, or onsite waste disposal is proposed.

Applicable additional standards: In addition to the noted county code standards and requirements, other state and federal regulations apply to siting of communication towers. Compliance with these standards are the sole responsibility of the applicant.

TOWN / COUNTY PLAN: The property is within a designated agricultural preservation area in the Town of Dunn and Dane County Comprehensive Plans. Within agricultural preservation areas, plan policies focus on preserving both farmland and the town's rural character by strictly limiting the density and careful siting of nonfarm development.

See staff analysis section below for additional discussion on consistency with adopted comprehensive plan policies.

3rd PARTY ENGINEERING REVIEW: The County relies on the services of CityScope, a 3rd party radio frequency engineering consultant, to provide an independent and unbiased technical review of communication tower proposals. In addition to evaluating proposals for compliance with local, state, and federal regulations, CityScope also analyzes

whether a particular site and tower height is justified based on the provided technical documentation, and if collocation on any existing tower facilities is feasible.

The applicant has provided confirmation from a Dish network engineer that collocation was not an option on any nearby existing communication towers.

CityScape's report provided the following summary finding and recommendations:

CityScape has investigated all possibilities of collocating on an existing or permitted structure to the extent allowed by County and State Code and has concluded that there are no such possibilities. CityScape also believes the location and height proposed are technically appropriate based on the search ring and propagation maps provided by the Applicant. Based on these facts, CityScape has determined there is a preponderance of evidence that no existing tower would adequately serve Dish subscribers in the area where Dish needs improved service, and only the construction of a new wireless tower will provide the needed improvements to its wireless service network. In conclusion, CityScape confirms that the subject proposal is justified from a technical point of view.

If the County elects to approve the new wireless facility, it should do so with the following conditions:

- 1) Prior to permitting, the Applicant shall provide the NEPA and Section 106 review reports; and,*
- 2) Prior to permitting, the Applicant shall provide a full structural analysis report confirming that the tower will have the structural capacity to safely support Dish's equipment and similar equipment of three (3) future wireless service providers; and,*
- 3) Prior to permitting, the Applicant shall submit final construction drawings for the facility which shall be certified by a Wisconsin Professional Engineer and shall include descriptions of the support structure and the electronic and electrical equipment including antennas, transmitters, radios, cabinets, cables, utility components, backup power generator (if proposed) and all related equipment to be installed on or near the support structure; and,*
- 4) At the County's discretion, the tower, antennas, and all other ancillary equipment mounted on the tower shall be painted a color deemed the least visually obtrusive; and,*
- 5) If a valid complaint of interference to an authorized County or municipal public safety radio facility is found to be associated with Dish's installation at the proposed facility, the Applicant shall comply with all applicable rules regarding radio-frequency interference as mandated by the Federal Communications Commission (FCC), and in accordance with the FCC's Best Practices Guide.*

STAFF ANALYSIS

As indicated in the applicant's submittal, this site is being proposed to address a gap in Dish's cellular network service in the area. Below is a summary discussion of issues typically associated with communication towers and an analysis of their relevance to the current proposal.

Common Tower Related Issues. There are a number of issues that are commonly associated with the siting, operation, and maintenance of communication towers. Below is a brief synopsis of these issues in the context of the tower proposed under CUP #2622.

Air navigation. The potential for impacts to air navigation, including nearby private airports, is a concern handled through the FAA. The applicant has provided a copy of the FAA's "determination of no hazard to air navigation" for this site, and has also provided direct notification of the proposed tower to airports within 5 miles of the site. Staff has not received any comments or concerns from nearby airports as of May 8, 2024.

Fall-down and ice-fall. Catastrophic tower collapse as well as ice fall from towers can be a concern for towers located in developed areas or near occupied buildings. The closest building is the owner's home located about 390' from the

tower. The applicant has provided an [engineering certification](#) indicating an anticipated fall down radius of 55' or less. While ice fall is a possibility with all towers, the likelihood of damage is relatively low given the rural location and prevailing winds coming from the west.

Visual aesthetics. Aesthetics is a highly subjective issue and one of the most significant points of contention often associated with new communication tower requests, particularly those that would involve nighttime lighting. There are 11 residences within ½ mile of the site. The closest is the owner's residence at 390', with the next closest (3333 Elvehjem Rd) approximately 500' away from the proposed tower. The tower would be set back over 200' from Elvehjem Rd, and the presence of existing mature trees should mitigate aesthetic impacts to a degree. However, given the relative lack of topography, the tower will undoubtedly be visible from the surrounding area. The tower would not be lighted.

The applicant has submitted [photo simulations](#) that illustrate the potential visual impact from three locations surrounding the property. Under applicable state law, aesthetics cannot be the *sole* determining factor in denying a new tower proposal.

Electromagnetic radiation. The issue of electromagnetic radiofrequency (RF) emissions is commonly raised in response to communication tower proposals. Given the rural location of the site and lack of nearby residential structures, RF emissions should not be an issue. Dish has provided confirmation that the facility will be in compliance with the RF energy human exposure guidelines and FCC rules regarding interference to other communications services.



View from near entrance to 3320 Elvehjem Rd

Consistency with adopted town / county comprehensive plan: To be approved, a proposed conditional use must be found to meet the standards in section 10.101(7)(d)1. This includes a finding by the town board and county zoning committee that the proposed conditional use is consistent with the adopted town and county comprehensive plans.

As noted above, the property is in a designated agricultural preservation area. Town / county planning goals, objectives, and policies emphasize the preservation of farmland and rural character. The town of Dunn comprehensive plan includes the following [policy](#) for communication towers:

“Any new development will be located such that it does not disturb scenic views or impact the Town’s rural character. To the extent possible, encourage new communication towers and wind energy systems to locate in areas that minimize viewshed impacts.”

Impacts to rural character and aesthetics can be difficult issues for decision makers to navigate. Particularly in the context of siting facilities that play a critical role in the delivery of services town and county residents utilize on a daily basis.

Understandably, there is no way to completely hide a 170' tower from view of the surrounding area.

In their report, CityScape noted they had recommended to the applicant that a monopole tower would be less visually obtrusive, but that the applicant did not respond to the suggestion. In addition to tower design, painting the tower a color that blends with the surrounding environment can improve aesthetics. However, tower design alternatives involve tradeoffs. For example, a monopole tower may be less visually obtrusive than a self-support lattice tower, but more expensive to construct and less sturdy and adaptable to the needs to potential collocators.

Telecommunications

Policies and Programs

1. Encourage Dane County communities to adopt enforceable guidelines for siting and removing telecommunications facilities.
2. Strengthen consideration of aesthetics in the building of towers (e.g., education, design competition, exhibits).
3. Maximize coordination of telecommunication facility needs with existing structures, buildings, water towers, etc.
4. Adopt ordinance requiring feasibility study of alternatives before allowing new tower construction.
5. Because Internet communication has become necessary in the conduct of commerce and provision of services in the county, promote countywide wireless Internet service (WiFi).
6. Encourage exploration of municipally owned telecommunication facilities to furnish wireless service to all areas of the county.

[Dane County Comprehensive Plan Telecommunications Policies](#)

Regarding concerns about aesthetic impacts to rural character, the county zoning ordinance provides the [following](#):

3. *The committee may require, unless it is shown to be unreasonable, modifications to the tower design, including but not limited to visual screening or landscaping, that it deems necessary to minimize the aesthetic impact of the tower.*

Modifications to the tower design (e.g., monopole, landscaping, paint color) may be required if the town and/or county zoning committee determine it necessary to support findings that the proposed conditional use satisfies one or more [standards of approval](#).

TOWN: The Town of Dunn approved the petition subject to 6 conditions. The town conditions are reflected in the staff recommended conditions, below.

STAFF RECOMMENDATION: Staff believes that the applicant has provided sufficient evidence to address the CUP standards and mitigate potential concerns. This includes the proposed tower being under 195' in height, located in a low density rural area on a vacant parcel adjoining publicly owned / undeveloped land, and existing natural screening to help minimize aesthetic impacts.

Staff recommends that the ZLR Committee make findings of fact that the proposal satisfies the standards for approval of a Conditional Use Permit and that the application be approved subject to the following conditions. Note that the conditions below reflect the general conditions that apply to all CUPs as well as the town's conditions and those that apply to communication towers.

1. Any conditions required for specific uses listed under s. [10.103](#). (See below)
2. The physical development and operation of the conditional use must conform, in all respects, to the approved site plan, operational plan and phasing plan, including any modifications that may be required by the town of Dunn or ZLR Committee as part of their respective actions on the CUP.
3. New and existing buildings proposed to house a conditional use must be constructed and maintained to meet the current requirements of the applicable sections of the Wisconsin Commercial Building Code or Uniform Dwelling Code.
4. The applicant shall apply for, receive and maintain all other legally required and applicable local, county, state and federal permits. Copies of approved permits or other evidence of compliance will be provided to the zoning administrator upon request.
5. Any ongoing business operation must obtain and continue to meet all legally required and applicable local, county, state and federal licensing requirements. Copies of approved licenses or other evidence of compliance will be provided to the zoning administrator upon request.
6. Existing onsite wastewater sewage disposal systems, if any, serving the conditional use must be inspected by a licensed plumber to determine its suitability for the proposed or expanded use. Deficient systems must be brought, at the owner's expense, into full compliance with the current requirements for new development of the state plumbing code and Chapter 46, Dane County Code.
7. All vehicles and equipment must access the site only at approved locations identified in the site plan and operations plan.
8. Off-street parking must be provided, consistent with s. [10.102\(8\)](#).
9. If the Dane County Highway, Transportation and Public Works Department or the town engineer determine that road intersection improvements are necessary to safely accommodate the conditional use, the cost of such improvements shall be borne by the landowner. Costs borne by the landowner shall be proportional to the incremental increase in traffic associated with the proposed conditional use.
10. The Zoning Administrator or designee may enter the premises of the operation in order to inspect those premises and to ascertain compliance with these conditions or to investigate an alleged violation. Zoning staff

conducting inspections or investigations will comply with any applicable workplace safety rules or standards for the site.

11. The owner or operator must keep a copy of the conditional use permit, including the list of all conditions, on the site, available for inspection to the public during business hours.
12. Failure to comply with any imposed conditions, or to pay reasonable county costs of investigation or enforcement of sustained violations, may be grounds for revocation of the conditional use permit. The holder of a conditional use permit shall be given a reasonable opportunity to correct any violations prior to revocation.

Conditions of approval specific to communications towers (includes town conditions and those required under zoning code section [10.103\(9\)\(d\)](#)).

1. The communication tower approved under CUP 2622 is intended to support installation of mobile service facility(ies) as defined under sec. 66.0404, Wisconsin Statutes, and shall be designed to support, without substantial modification, at least four users (the primary user and three collocation sites).
2. One collocation site on the tower must be reserved for a company that provides broadband wireless internet to residents in the vicinity of the tower.
3. Prior to construction, the Applicant shall provide a full structural analysis report confirming that the tower will have the structural capacity to safely support Dish's equipment and similar equipment of three (3) future wireless service providers;
4. Final site plan(s) and design drawings for the proposed tower are subject to review and approval by the Town of Dunn prior to installation of the tower. Said final site plan(s) and construction/design drawings for the facility shall be certified by a Wisconsin Professional Engineer and shall include descriptions of the support structure and the electronic and electrical equipment including antennas, transmitters, radios, cabinets, cables, utility components, backup power generator (if proposed) and all related equipment to be installed on or near the support structure.
5. The tower shall not be lighted, unless required by the FAA or other lawful authority, and shall not exceed a height of 173' above ground, including lightning rod.
6. Visual screening and/or landscaping shall be installed around the fenced tower compound and the tower shall be galvanized or painted a color to minimize the aesthetic impact of the tower and compound area. The permit holder must obtain town approval of the fencing, visual screening and/or landscaping, and tower paint color prior to installation. Any trees planted shall be maintained in viable growing conditions.
7. Fencing and locks must be provided to secure the site. No barbed wire or razor wire fencing is permitted. No trespassing signs shall be posted on any security fencing.
8. If a valid complaint of interference to an authorized County or municipal public safety radio facility is found to be associated with Dish's installation at the proposed facility, the Applicant shall comply with all applicable rules regarding radio-frequency interference as mandated by the Federal Communications Commission (FCC), and in accordance with the FCC's Best Practices Guide.
9. The tower owner shall make the collocation sites required hereunder available for the placement of technologically compatible antenna arrays and equipment upon contractual provisions which are standard in the industry and at prevailing market rates allowing the permit holder to recoup the cost of providing the collocation sites and a fair return on investment.
10. No lease or deed restriction on property that is proposed for the location of a mobile service support structure or mobile service facility shall preclude the owner or lessee from entering into agreements, leases, or subleases with other providers or prohibit collocation of other providers.
11. Upon written inquiry by the committee, the holder of a Conditional Use Permit issued under this section shall have the burden of presenting to the committee credible evidence establishing to a reasonable certainty the continued compliance with all applicable standards and conditions placed upon the conditional use permit. Failure to establish compliance with the standards and conditions shall be grounds for revocation of the permit. In the event the committee determines that it is necessary to consult with a third party to ascertain compliance

with the standards and conditions, all reasonable costs and expenses, except travel expenses, associated with such consultation shall be borne by the holder of said conditional use permit. Failure to pay such costs and expenses or provide information requested by the committee shall be grounds for revocation of the conditional use permit.

12. Within 90 days of approval of the conditional use permit, or prior to issuance of a zoning permit for construction of the approved communication tower, whichever comes first, the tower owner shall provide Dane County with a bond, or evidence of an existing bond, in the amount of \$20,000 ensuring performance of owner's obligation to remove any communication tower, array or any other equipment or structure placed or erected pursuant to the conditional use permit, including payment for such removal by Dane County or its agent, in the event the permit is revoked or the use permitted thereunder ceases for a continuous period of 12 months. Said bond shall expressly state that it will remain in full force and effect for a period of at least six months after the surety provides Dane County written notification of expiration or termination of the surety's obligation under the bond. Applicant shall remove any communication tower, array or any other equipment or structure placed or erected pursuant to the conditional use permit no less than 60 days prior to the termination or expiration of the bond required hereunder.
13. If the mobile service facility(ies) to be provided from the communication tower are not installed within 1 year of the date of conditional use permit approval, or if the mobile service facility(ies) are later removed, or cease to be used for a continuous period of 12 months, the county zoning committee may take action to revoke the conditional use permit. In the event the permit is revoked, the tower owner shall remove the tower within 60 days of the county zoning committee action. If the tower is not removed within the 60 days, the county may enter upon the premises and remove the tower at the expense of the tower owner.

Any questions about this proposal, please contact Majid Allan at: allan.majid@danecounty.gov, or 608-267-2536 (office), or 608-720-0167 (cell).