



# Dane County Planning & Development

## Division of Zoning

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### *CONDITIONAL USE PERMIT (CUP) APPLICATION REQUIREMENTS*

#### *FOR*

#### *“COMMUNICATION TOWERS”*

In order to make a Conditional Use Permit (CUP) application in Dane County for a new communication tower, eight items are required. These eight items satisfy the normal CUP application requirements, i.e. those required of all CUP applications, but they also include a few requirements that are peculiar only to CUPs for communication towers. The required application items are:

- A. Legal description;
- B. Tax parcel number(s);
- C. Completed *Zoning Application Form*;
- D. Completed *Communication Tower Information Form (CTIF)*;
- E. Written Statement;
- F. Site Plan, Design Elevations, Site Photos, and Photo Simulations;
- G. CUP filing fee; and
- H. Radiofrequency Engineering Analysis.<sup>1</sup>

***Town Pre-Application Meeting.*** In addition to the eight required items listed above, some of Dane County’s 34 towns may request a pre-application meeting between the applicant and the town prior to the submittal of a communication tower CUP application with Dane County. The County strongly recommends that applicants first contact the relevant town to determine if the town prior to making application with the County desires such a meeting. If the town during this preliminary meeting generates questions, applicants may submit such questions with their application for consideration by the third-party radiofrequency engineering consultant.

***County Pre-Application Meeting.*** For new applicants, an informal meeting prior to application is recommended to allow staff to explain the County’s zoning process. As with all zoning petitions, Department staff are available to assist applicants throughout the entire process.

The following sections outline the details of each of the required application items above.

#### **A. LEGAL DESCRIPTION**

A legal description of the land for which the permit is requested. This may be a lot or lots in a Certified Survey Map (CSM) or a Subdivision Plat or an exact metes and bounds description. Include the size of the proposed CUP area in both net (i.e. independent of right-of-way) acres and square feet.

#### **B. TAX PARCEL NUMBER(S)**

The tax parcel number(s) of the lot(s) or parcel(s) on which the conditional use is to be located. If the area proposed for the conditional use is part of a larger parcel, please provide the tax parcel number of the larger parcel. If the larger parcel is part of a farm or other parcel of more than 35 acres zoned A-1 Agriculture (Exclusive), please provide the total size of the farm in acres.

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<sup>1</sup> It is not expected that the applicant submit this last item at the time of application. The County will initiate this RF engineering analysis with a third-party consultant following the submittal of the other application material.  
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**C. COMPLETED ZONING APPLICATION FORM**

This is the standard application form required of all zoning applications, both rezones and CUPs alike. This form must be filled out with Zoning staff at the Zoning Counter in Room 116 of the City-County Building.

**D. COMPLETED COMMUNICATION TOWER INFORMATION FORM (CTIF)**

The information provided in this form will be used for two purposes: 1) to provide basic information to the County and the respective town for preliminary review; and 2) if ultimately part of a completed and approved CUP application packet, the form will be used to supplement the County's geographic information system (GIS) database on existing communication tower locations. A copy of this form is included as an attachment to this material.

**E. WRITTEN STATEMENT**

The Written Statement should address the following: 1) project description; 2) collocation; and 3) existing and proposed network buildout.

1. **Project Description.** Thoroughly articulate the proposed project and clearly describe such things as the existing and proposed uses and zoning of the subject property; existing uses and zoning of adjacent properties; time schedule for development; and reasons why the property is suitable for the proposed use. Two RF propagation plots must accompany this project description: one that shows the carrier's current service (highlighting the existing service area void), and one that shows the service to be gained by the proposed facility. These plots shall be prepared in accordance with accepted industry standards and shall be accompanied by a clear and simply written description by an RF engineer explaining the plots and how to read them.

Both of these plots should also include and identify the location of any existing communication towers as well as any other possible structures that could be used to support the requester's antenna equipment within a 1.5-mile radius. Both maps should also show all of the requester's sites that surround the subject location. The identity of the entity owning or managing the tower must also be given (see below). The written statement should provide persuasive reasons why alternative existing sites cannot be used. Requester should note that the inability of a tower structure to support another antenna, or an insufficient height, are not by themselves "persuasive reasons" why they cannot be used. Requester must also explain why the structure cannot be replaced with a stronger or taller structure at a reasonable cost as outlined in s. 10.194(3) of the Dane County Code of Ordinances.

2. **Collocation.** Section 10.194(2) of the DCCO requires that no conditional use permit for the placement or construction of a new tower shall be issued unless the applicant presents to the committee (i.e. the Dane County Zoning and Natural Resources Committee) credible evidence establishing to a reasonable degree of certainty that at least one of six factors are present. The applicant must clearly identify under which of the six factors listed under s. 10.194(2) it will make the case that a new communication tower is needed. All of the evidence submitted will be reviewed by Planning and Development Department staff, an RF engineering consultant to be hired by the County,<sup>2</sup> and by other consultants as deemed necessary by the committee.

Applicants should make their explanations of the evidence submitted as complete and thorough as possible to avoid any potential delays later in the zoning process that may result from a need to clarify or expand upon the information provided. The six factors under s. 10.194(2) are:

- (a) **Absence of Tower(s).** No existing communication tower is located within the area in which the applicant's equipment must be located.
- (b) **Insufficient Height.** No existing communication tower within the area in which the applicant's equipment must be located is of sufficient height to meet applicant's requirements and the deficiency in height cannot be remedied at a reasonable cost.<sup>3</sup>

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<sup>2</sup> This analysis is to be financed out of the CUP application fee.

<sup>3</sup> Section 10.194(3) establishes the basis for *reasonable cost* as the following: "The cost of eliminating impediments to collocation shall be deemed reasonable if it does not exceed by 25 percent the cost of constructing a H:\Zoning\Zoning Division Documentation\Informational Materials\Communication Towers\Communication Tower Application Packet 09-2010.doc

- (c) ***Insufficient Structural Strength.*** No existing communication tower within the area in which the applicant's equipment must be located has sufficient structural strength to support applicant's equipment and the deficiency in structural strength cannot be remedied at a reasonable cost.
- (d) ***Interference.*** The applicant's equipment would cause electromagnetic interference [i.e. in violation of the FCC's Rules and Regulations] with equipment on the existing communication tower(s) within the area in which the applicant's equipment must be located, or the equipment on the existing communication tower(s) would cause interference with the applicant's equipment and the interference, from whatever source, cannot be eliminated at a reasonable cost.
- (e) ***Fees or Terms Deviate from Industry Norms.*** The fees, costs or contractual provisions required by the owner in order to collocate on an existing communication tower are unreasonable relative to industry norms.
- (f) ***Other Factors.*** The applicant demonstrates that there are other factors that render existing communication towers unsuitable or unavailable and establishes that the public interest is best served by the placement or construction of a new communication tower.

If there are towers within the search ring or within a 1.5-mile radius (whichever is greater), then the applicant must submit:

1. a map documenting and assigning an identification number to all existing towers within the designated radius; and
2. a table providing the following data for each existing tower: simple description of the tower, including height and registration number; owner's name and contact information; present percentage of use of the tower, available aperture at the requester's preferred height, and type of communication technology being used; and date the tower was permitted.

Planning and Development Department staff are available to assist in the above task. Department staff have developed a geographic information system (GIS) inventory of existing wireless communication facilities and other relevant land use features (e.g. private airports) in Dane County. This inventory is available from the Department upon request to aid applicants in completing this task. Since the inventory is a snapshot at one point in time, it will occasionally lapse out of date: The inventory information should always be field verified.

For each existing tower identified within the designated radius, the applicant must then identify and address the factor [s. 10.194(2)(b) through (f)] relied on to make the case that a new tower is needed and that the existing tower should be removed from consideration as a viable collocation option. If the applicant is making the case under items (b) *insufficient height*, (c) *insufficient structural strength*, or (d) *interference*, the applicant must: clearly demonstrate and explain the issue in lay terms; identify the anticipated cost of constructing the proposed tower; and demonstrate that it will cost more than 125 percent of the cost of constructing the new tower to remedy the identified shortcomings of the existing tower(s). The cost for both constructing the new tower and the cost of remediating the identified shortcomings (e.g. modifying the existing tower or dismantling and reconstructing the tower) must not merely be lump sum amounts: they must be broken out into reasonable and discernable cost components that add up to the lump sum total. The explanations of the issues must be provided by qualified professionals (e.g. an RF engineer would be a credible source to describe RF issues and a structural engineer would be a credible source to describe structural issues, etc.). A letter from a site acquisition person or an attorney describing RF or structural issues would not be considered credible evidence. There must be a reasonable, technical nexus between the qualifications of the person describing the issue and the issue itself. Specifically in regard to the interference case, i.e. s. 10.194(2)(d), exhibits claiming interference must be prepared by a professional RF engineer.

If the applicant is making the case under item (e) *fees deviate from industry norms*, the applicant must identify *industry norms*. Dane County does not have data on industry norms, and the burden of proof rests entirely on the applicant. The applicant should attempt to establish a normal range of the fees, costs, or contractual provisions and clearly demonstrate that the other tower owner(s) are requiring something in excess of that

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new tower on which to mount applicant's equipment." The cost of eliminating impediments to collocation shall be deemed unreasonable if it exceeds 125 percent of the cost of constructing a new tower.

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range. Success for the applicant is dependent upon submittal of a persuasive, well prepared, and sufficiently documented case. The applicant should include copies of letters, emails, or other written material to document the existing tower owner's position on the fees, costs, or contractual provisions. If the applicant is making the case under item (f) *other factors*, all evidence must be derived from qualified, credible sources.

3. ***Existing and Proposed Network Buildout.*** Under s. 10.194(11), the committee may require that an applicant for a CUP under this section provide information regarding the applicant's then current plans for future placement or construction of communication towers in Dane County. Describe in writing and via a map the applicant's existing network in Dane County and one mile surrounding the County's border. Identify each individual wireless communication facility on the network and whether the proposed tower is intended to address capacity, coverage, or other performance issues on the network. Discuss and show on a map generally where gaps in service currently exist. Discuss and show on a map the applicant's current plans for future placement or construction of communication towers in Dane County in addition to the proposed tower that is the subject of the application.

#### **F. SITE PLAN, DESIGN ELEVATIONS, SITE PHOTOS, AND PHOTO SIMULATIONS**

***Site Plan.*** A complete site plan, including design elevations, is required for every communication tower CUP application. The site plan, drawn to a scale large enough to show sufficient detail on 11 x 17 sheets, shall include the following:

1. Four-digit Conditional Use Permit (CUP) number assigned to the petition.
2. A small vicinity map that clearly identifies the site's location within Dane County.
3. Location of subject property, parcel number(s), and any relevant certified survey map (CSM) or plat information related to the identification of the property.
4. Scale and north arrow.
5. A contact name and phone number of the person(s) or entity responsible for preparing the plan.
6. Date the site plan was last revised.
7. Existing subject property lot lines and dimensions.
8. Proposed or existing lease area.
9. Proposed CUP area.
10. All buildings and outdoor use areas, both existing and proposed, including utilities, water, and sewer, either public or private. Existing and proposed uses should be labeled and clearly distinguishable. All building footprint dimensions and lot line setbacks should be shown; include approximate building heights.
11. Location, width, and surface of all interior roads or driveways and existing and proposed driveway entrances and exits onto public and private roadways. Clearly indicate traffic flow patterns.
12. Existing and proposed zoning district boundaries of the subject property and adjacent properties. Clearly label all districts.
13. Location and distance from the proposed tower of residences on both the subject property and adjacent properties.
14. Existing and proposed landscaping, fences, and other screening (e.g. berms).
15. All existing natural features of the subject property, including two-foot contours, cropped areas, woodlands, lakes, ponds, streams (including intermittent streams), significant drainage courses, general areas of slopes in excess of 20 percent, flood zones, and wetlands. For woodland areas, identify the dominant species and the approximate average height of trees in the area.
16. Other significant features, such as existing or proposed lighting, signs, and refuse dumpsters.
17. Possible future expansion areas (if anticipated).

**Design Elevations.** The design elevation drawings should be stamped by a registered professional engineer (P.E.) licensed by the State of Wisconsin and show, at a minimum:

1. A scaled elevation drawing of the proposed tower and the location and elevation (ft., AGL) of each proposed antenna array, future anticipated arrays, and any anticipated lighting.
2. The location and height of all ancillary ground equipment and structures and any anticipated landscaping or berming.
3. A schematic showing the primary antenna orientation (azimuth)/downtilts.

**Site Photos and Photo Simulations.** The application should include two sets of 4 x 6 inch photographs and one set of photo simulations. The first set should be comprised of four photographs from the proposed base of the tower looking out toward the horizon into the four cardinal directions -- north, south, east and west. Each photograph should be clearly identified in terms of what direction is being viewed. The second set of photographs should be comprised of four photographs of the subject site from adjacent properties, taken from each of the four cardinal directions -- north, south, east, and west. Again, each photograph should be clearly identified in terms of what perspective is being provided. Applicants may either indicate on the site plan or attach a separate map to show where each of the photos was taken. Lastly, one set of photo simulations providing a depiction of how the proposed tower will look should be included in the application material. These simulations should include a scaled representation of the tower superimposed on each of the four photos in the second set described above, i.e. those taken from adjoining properties looking toward the subject site. The tower should be shown as painted according to FAA requirements unless requester meets FAR waiver requirements, in which case an appropriate blending color may be used.

#### **G. CUP APPLICATION FILING FEE**

A filing fee of \$3,036.00 is required for all CUP applications for new communication towers, payable at the time the application is made (cash or check only). Many tower applications will also require a zoning change, which involves a separate fee that varies depending upon the current and proposed zoning category. Applications are accepted between 8:00 a.m. and 4:00 p.m. Monday through Friday.

#### **H. RADIOFREQUENCY ENGINEERING ANALYSIS**

Section 10.194(4) affords Dane County the option of consulting with objective, third-party technical resources at the expense of the applicant: "In the event the committee determines that it is necessary to consult with a third party in considering the factors listed in subsection (2) above, all reasonable costs and expenses associated with such consultation shall be borne by the applicant. Failure to pay such costs and expenses or provide information requested by the committee shall be grounds for denial or revocation of a conditional use permit. The applicant may provide to the committee the names of consultants which the applicant believes are qualified to assist in resolving the issues before the committee." As a matter of course, a Radiofrequency Engineering Analysis will be completed for every CUP application for a new communication tower. Dane County has contracted with Evans Associates Consulting, LLC out of Thiensville, Wisconsin to provide this service. Following the close of the Application Deadline, Planning and Development staff will forward each completed CUP application for a communication tower to the County's consultant for review. The fee for this review is included in the \$3,036.00 CUP application fee for new communication towers.

**COMMUNICATION TOWER INFORMATION FORM (CTIF)**

<b>CONTACTS</b>				
Property Owner's Name				
Property Owner's Mailing Address	Street	City	State	ZIP
Property Owner's Phone Number	(        )			
Agent's Name & Affiliation				
Agent's Relationship to Property Owner				
Agent's Relationship to the Proposed Tower (e.g. wireless service provider, site acquisition firm, tower builder, etc.)				
Agent's Mailing Address	Street	City	State	ZIP
Agent's Phone Number	(        )			
<b>PROPOSED ACTION</b>				
Current Zoning		CUP Acres		
Proposed Zoning (only if rezoning)		Rezone Acres (if applicable)		
Have the property owner and the agent/tower sponsor formally completed a binding letter of intent, option to lease, or lease? Please attach a letter from the property owner(s) consenting to the application.			Yes	No
			Circle One	
If applicable, does the lease area coincide with the proposed CUP area?			Yes	No
			Circle One	
<b>LOCATION</b>				
Town				
PLSS location (Township, Range, ¼ ¼ Section)				
Parcel Number(s)				
Street Address (or Proximity to Nearest Address)				
Coordinates in Decimal Degrees (00.000000 Lat., - 00.000000 Long.)				
Is the subject property located in the Height Limitation Zoning Overlay District (HLZO), roughly within three miles of the Dane County Regional Airport (check with Zoning staff)?			Yes	No
			Circle One	

<b>TOWER DETAILS</b>							
Applicant's Intended Purpose of Tower (e.g. coverage, capacity, other). Explain.							
Type of Tower (e.g. monopole, self-support lattice, guyed lattice, etc.)							
Above Ground Level (AGL) Height (ft.) (i.e. maximum design potential).							
Base/Ground Elevation (ft.)							
What is the "fall-down radius" (ft.) of the proposed tower?							
Technology to be Initially Sited on the Proposed Tower (e.g. Cellular, PCS, Radio, Television, Microwave, etc.) <sup>4</sup>							
Number & elevation (Feet AGL) of Antenna Arrays to be Accommodated		1	2	3	4	5	6
Is the primary sponsor of this tower a wireless service provider or a tower builder?				If a wireless service provider, please include FCC license number.			
To the best of the applicant's knowledge, will this tower be lighted?		Yes	No	If applicable, please explain in the box below to the greatest extent known in what manner the tower will be lighted.			
		<i>Circle One</i>					
<i>Lighting Configuration:</i>							
Are there any mitigation measures being taken to minimize the visual impact of this tower? If so, explain. Attach an additional page if necessary.							
<b>PRELIMINARY INFORMATION ON OPTIONS FOR COLLOCATION</b> <sup>5</sup>							
What search area radius was used to determine the location of the proposed tower?							
Are there any existing towers or other potentially suitable structures in excess of 80 feet in height within a 1.5 mile radius? If yes, how many structures <u>total</u> are there? _____ structures. If yes, please attach map showing the location of these structures in proximity to the proposed tower.						Yes	No
						<i>Circle One</i>	
Has the applicant examined each of the structures noted above to determine if an antenna array can or may be located on the structure?						Yes	No
						<i>Circle One</i>	

<sup>4</sup> Note that this statement in itself does not necessarily preclude in the future the placement of alternative technologies on this structure.

<sup>5</sup> Note that more detailed information regarding options for collocation and addressing s. 10.194(2) of the Dane County Code of Ordinances is required in the *Written Statement*.

Assign a number to each of the existing structures noted above and briefly explain in the spaces below why each one will not accommodate the proposed antenna array (e.g. structurally incapable, owner unwilling to enter into a lease, etc.). Attach additional pages if necessary.		
1.		
2.		
3.		
4.		
<b>SUBJECT PROPERTY AND SURROUNDING AREA</b>		
What is the current, primary use of the subject property (e.g. residential, agricultural, commercial, etc.)?		
What are the current, primary uses of all properties adjacent to the subject property?		
What is the current zoning of all properties adjacent to the subject property?		
How far (in feet) is the proposed tower from the nearest structure on an adjacent property (not on subject property)? What is the current use of the structure?		
Are there any small, private airports within a 3-mile radius of the proposed tower? If yes, give the name(s) and distance(s) in the box below.	Yes	No
	<i>Circle One</i>	
<i>Name(s) and Distances of Private Airports:</i>		
If applicable, have the listed private airports within a 3-mile radius of the proposed tower been notified of the petition?	Yes	No
	<i>Circle One</i>	



# Cell Tower Application Formatting Requirements

Below are formatting guidelines for communication tower Conditional Use Permit applications. Because of the numerous pieces of information that applicants must submit, the Department requests that the guidelines be closely followed. Having a consistent format to these applications helps to expedite the staff and Radio Frequency engineering review.

## Application format

Please use a binder clip to assemble the materials below, or some other easy mechanism that will make it easy to copy applications.

Please submit three (3) original copies of your applications: One to put in the application file and to be used by staff, one for the radio frequency engineer, and one for the relevant town. If you want to bring colored copies of propagation plots, site photos/simulations, etc. for the county Zoning and Land Regulation Committee (ZLR) to view, please bring these copies to the ZLR meetings for distribution.

In packaging and presenting your applications, please try to follow the outline and sequence provided by the application handout and checklist. Please include section tabs that correspond directly to the letters for each application section outlined in the handout, as follows:

### Tab/Exhibit A: Legal Description

Referring to the legal description in the reduced site plan is not good: The print on a reduced 11 x 17 site plan is typically too small and makes it difficult for the inspectors and others to read. In this tab, please just include the legal description for the CUP area using 12- font type.

### Tab/Exhibit B: Tax Parcel Numbers

For this one, it is OK to refer to both the Zoning Application Form and the Communication Tower Information Form for the relevant parcel numbers.

### Tab/Exhibit C: Zoning Application Form

This form is filled out by county zoning staff at the time you make the CUP application in person. Please provide a copy of this form in your final submittal. The zoning application form includes your application's CUP number, which will be referenced throughout the review and approval process. The simpler application binding mentioned above allows us to simply insert a copy of the original Zoning Application Form into this exhibit.

## **Tab/Exhibit D: Completed Communication Tower Information Form (CTIF)**

Inspectors will check to see if the contact and location information in the CTIF correspond to the information in the Zoning Application Form. Please note under the LOCATION section that "Town" refers to the rural, unincorporated township jurisdiction in which a CUP subject property is located.

## **Tab/Exhibit E: Written Statement**

Please use the following tabs for this section: E.1, E.2, and E.3

*E.1 Project Description*

*E.2 Collocation*

*E.3 Existing and Proposed Network Buildout*

## **Tab/Exhibit F: Site Plan, Design Elevations, Site Photos, & Photo Simulations**

As above, please use the following tabs for this section: F.1, F.2, and F.3

*F.1 Site Plan*

*F.2 Design Elevations*

*F.3 Site Photos and Photo Simulations*