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MEMORANDUM

TO: Dane County Zoning & Land Regulation Committee (ZLR)

FROM: Majid Allan, Senior Planner

DATE: September 19, 2017

RE: **Conditional Use Permit (CUP) #2390 – proposed 135’ cell tower in the A-1 Agriculture district, 2381 Zurbuchen Dr., section 24, Town of Springdale**

CC: Nathan Ward (Agent for Verizon Wireless)
Patrick Downing, Dane County Board Supervisor
Susan Severson, Clerk, Town of Springdale



Proposal Summary

- **Tower height / type:** 135’ tall monopole cell tower in the A-1 district, on a 10,000 square foot lease area. The tower would be constructed by Central States Tower (CST), with Verizon Wireless as the “anchor” tenant. The tower would be designed to be extendable to 165’, should additional height be required by other carriers seeking to collocate on the tower. According to the applicant, the tower is designed to accommodate a total of three (3) additional collocation spots. The tower would not require lighting.
- **Location:** The tower would be approximately 460’ southwest of 2349 Springrose Road, with access via the driveway serving the subject property at 2381 Zurbuchen Drive. There are 11 rural residences located within 400’-1,300’ of the proposed tower.

- **Reason for tower:** Verizon has provided documentation that there is no other existing tower or other tall structure in the vicinity that could be utilized to meet the company's objective to improve coverage in the area. Verizon is making the case for the new tower under section 10.194(2)(a) of the county's tower ordinance: *"No existing communication tower is located within the area in which the applicant's equipment must be located."*

Radio Frequency (RF) Engineering Summary

- **RF Engineer's recommendation: Approve with conditions.**

CityScape Consultants, Inc has completed a review of the proposed tower and finds that the proposal meets applicable federal and state laws and county ordinance requirements. CityScape has recommended a number of conditions of approval, which are incorporated into the staff recommendations, below.

Staff Review

Common Tower Related Issues. There are a number of issues that are commonly associated with the siting, operation, and maintenance of cell towers. Below is a brief staff summary of these issues in the context of the tower proposed under CUP #2390.

Air navigation. There are no public or private airports that would be affected by the proposed tower. It is the applicant's responsibility to contact the FAA and WISDOT Bureau of Aeronautics to obtain a determination of no hazard to air navigation. The applicant has provided a copy of the FAA's Determination as part of the application.

Fall-down radius. The fall-down radius is essentially the area around a tower that could be affected in the event that the tower fell down. The applicant has submitted information indicating that the tower is designed to "buckle" resulting in a nominal fall down radius of 15% of the installed tower height, or 20.25 feet. There are no structures located within the designed fall down radius.

Ice-fall radius. During the winter months, ice can build up on towers and subsequently melt and fall off the tower affecting the ground and structures in close proximity to the tower. Falling ice can drift further from the base of a structure due to strong winds. A conservative radius to evaluate for falling ice is 50 percent of the proposed height of the tower, which in this case is approximately 67.5 feet. There are no structures within the ice-fall radius.

Visual aesthetics. This is a highly subjective issue and one of the most significant points of contention often associated with new communication tower requests. There are a number of neighboring rural residences in relatively close proximity to the proposed tower. Given the topography of the proposed location, visual/aesthetic impacts can be expected from many of these properties. Staff has recommended that the tower compound area be concealed by landscaping to somewhat minimize these aesthetic impacts.

Electromagnetic radiation. The issue of electromagnetic radiofrequency (RF) emissions is commonly raised in response to communication tower proposals. However, an evaluation of the issue is somewhat outside of the County's jurisdiction given that there are no relevant County regulations; Department staff do not have the technical capabilities to evaluate and comment on this issue; and it is regulated and governed by the FCC through the federal licensing and permitting process.

State statute now prohibits local units of government from imposing, "...*environmental testing, sampling, or monitoring requirements, or other compliance measures for radio frequency emissions, on mobile service facilities or mobile radio service providers*".

Pending consideration of any issues raised at the public hearing by neighboring property owners or other interested parties, staff has recommended potential conditions of approval that the ZLR Committee could impose as part of its action on CUP #2390. The consultant's recommendations are included in the list of recommended conditions, below.

Conditional Use Permit Considerations. When granting CUPs, the ZLR and respective town board need to find that the proposed conditional use satisfies the following six standards outlined under §10.255(2)(h) of the D.C. Ords.:

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; and
6. That the conditional use shall conform to all applicable regulations of the district in which it is located.

Section 10.194, Procedure and Standards for the Placement, Construction or Modification of Communication Towers. Dane County Zoning Ordinance section 10.194 that regulates the permitting of communication towers in Dane County. The primary intent of s. 10.194 is to minimize the total number of communication towers in Dane County by utilizing, to the extent practical, all existing structures.

Section 10.194(2) states that: "No CUP shall be issued unless the applicant presents to the committee credible evidence establishing to a reasonable degree of certainty [at least one of] the following:

- (a) No existing communication tower is located within the area in which the applicant's equipment must be located; **or**
- (b) 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; **or**
- (c) 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; **or**
- (d) The applicant's equipment would cause electromagnetic interference 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; **or**
- (e) 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; **or**
- (f) 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."

In the section referenced above, the burden of proof is placed upon the applicant. The applicant must provide to the Committee *credible* evidence establishing *to a reasonable degree of certainty* that at least one of those six conditions above is met. The applicant is making its case under s. 10.194(2)(a), above, which has been confirmed by the county's RF engineering consultant.

Potential Conditions of Approval. Should the Committee choose to approve the CUP application, below is a list of potential conditions.

1. The primary use of the communication tower permitted under Conditional Use Permit No. 2390 shall be for the transmission and reception of cellular/PCS wireless voice / data communications, and related telecommunications equipment.
2. The communication tower placed, constructed or modified under Conditional Use Permit No. 2390 shall accommodate the collocation of telecommunications equipment for at least two (2) additional telecommunications providers. The initial height of the tower shall be 135' above ground level. However, the tower shall be engineered to be extendable to a maximum height of 165 feet above ground level. Extension beyond the maximum permitted height of 165 feet above ground level shall require amendment and approval of a new Conditional Use Permit.
3. The minimum of two (2) collocation sites required hereunder need not be available on the tower as initially placed, constructed, or modified, provided that the tower will support the later addition of the collocation sites as specified in condition #2, above.
4. Collocation sites required hereunder shall, upon request, be made available by the holder of Conditional Use Permit No. 2390 for the mounting of technologically compatible antenna arrays and equipment at the prevailing market rate in the region and upon contractual provisions which are standard in the industry.
5. The holder of Conditional Use Permit No. 2390 is permitted, if needed, to construct a building of no more than 14 feet in height (as defined in section 10.01 (8) of the Dane County Zoning Ordinance in effect in March 1997) and 314 square feet in floor area for use directly incidental and necessary to the use of the tower. Any other user collocating on the tower permitted herein is permitted to construct a building of no more than 14 feet in height (as defined in section 10.01 (8) of the Dane County Zoning Ordinance in effect in March 1997) and 314 square feet in floor area for use directly incidental and necessary to the use of the tower. Two or more users of the tower may build a single building with a floor area of no more than 314 square feet per user sharing the building. Buildings constructed or used by tower collocators shall be subject to all conditions established for Conditional Use Permit No.2390, including locational requirements contained in the site plan.
6. The holder of Conditional Use Permit No. 2390 shall, through ownership, lease, option or other means, at all times have the right to use the land associated with the permitted tower for uses related to the use of the collocation sites required hereunder, including the construction and use of buildings as permitted under paragraph 5 herein.
7. The final site plan(s) and design drawings submitted with the CUP #2390 application materials, are fully incorporated herein and continued effectiveness of Conditional Use Permit No. 2390 is expressly conditioned upon compliance with those plans.
8. Upon written inquiry by the committee, the holder of Conditional Use Permit No. 2390 shall have the burden of presenting to the committee credible evidence establishing to a reasonable certainty the continued compliance with all conditions placed upon the conditional use permit. Failure to establish compliance with all conditions placed upon the conditional use permit 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 conditions on Conditional Use Permit No. 2390, all reasonable costs and 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.

9. The holder of Conditional Use Permit No. 2390 shall within 30 days of any collocation on the permitted tower provide the committee with written notification of the identity of the collocator and the nature of the equipment installed. Within 30 days of the date on which any collocated use ceases, the permit holder shall provide the committee with written notice of the cessation of such use. Any changes due to collocation or otherwise shall be reviewed by the Zoning Administrator prior to implementation to determine if permits are needed and to determine that such changes are in compliance with terms of the CUP and does not significantly alter the appearance or structural integrity of the tower approved and permitted under this CUP.
10. If at any time the communication tower permitted under Conditional Use Permit No. 2390 ceases to be used for the primary use, as identified in paragraph 1 above, for a continuous period of 12 months the permit holder shall, upon notification by the committee, dismantle and remove the tower. If the tower is not removed within 30 days of such notification, Dane County may enter upon the premises and remove the tower at the expense of the holder of the conditional use permit.
11. Prior to issuance of the requested conditional use permit, and as a condition of its continued validity, applicant shall provide Dane County with a bond, or evidence of an existing bond, in the amount of \$20,000 ensuring performance of applicant'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 30 days prior to the termination or expiration of the bond required hereunder.
12. The applicant shall file a Notice of Proposed Construction on Form 7460-1 to the FAA to assure that the tower will not impact air traffic.
13. Contact with Wisconsin DOT Bureau of Aeronautics should be made prior to construction, if it has not already been done, to determine whether notification to that agency is required.
14. All tower components, appurtenances and transmission lines should be securely bonded and grounded to prevent RF interference caused by stray signals.
15. A Wisconsin-licensed Structural Engineer will approve and stamp the tower design, and certify that the tower can support up to three additional cellular/PCS voice / data antenna arrays.
16. All feed lines shall be installed within the support structure and antenna ports shall be sealed in a manner to prevent access by birds and any other wildlife
17. The proposed tower shall be galvanized and not painted any other color without approval of the town and county.
18. Applicant shall not begin construction until Federal SHPO/NEPA requirements are met.
19. Prior to construction, the tower manufacturer letter should be revised to indicate the tower will be designed to accommodate three (3) total antenna arrays (of like design to the Applicant's).
20. The tower lease area shall be surrounded by a security fence and landscaped screening which shall consist of a planted evergreen screen at least six (6) feet in width and initially landscaped with

four (4) foot tall evergreen shrubs to ultimately form a continuous hedge not less than five (5) feet in height and maintained with healthy shrubs.

21. Failure to comply with any of the aforesaid conditions shall be grounds for the committee to initiate revocation proceedings for Conditional Use Permit No. 2390.