



# STAFF REPORT

<b>Planning Commission Meeting Date:</b>	February 20, 2024
<b>Agenda Title:</b>	ZOTA-23-1 Zoning Ordinance Text Amendment to Reduce the Setback Requirement for Telecommunication Towers in the PSP (Public Semi Public) Zoning District
<b>Requested Action:</b>	Hold a Public Hearing and Make a Recommendation
<b>Department / Agency Lead:</b>	Community Development
<b>Staff Lead:</b>	Heather Jenkins, Zoning Administrator

## EXECUTIVE SUMMARY

Article 9, Section 9-18 *Telecommunications Facilities*, regulates the height, location and appearance of telecommunication towers within Town boundaries. Section 9-18.10 *Setbacks*, requires that all towers be set back a distance of at least one hundred (100) percent of the height of the tower from the boundaries of the property on which the tower is located.

Mr. James Downey, on behalf of his client Arcola Towers, LLC (the Applicant), is requesting that Ordinance Section 9-18.10 *Setbacks* be revised so that the setback requirement is reduced for telecommunication towers located in the Public-Semi-Public (PSP) District, so as to require less than 100 percent of the height of the tower to the property boundary. The Applicant has proposed that the required setback for telecommunication towers in the PSP District be 100 percent of the *certified fall zone*, where the minimum setback for a tower would be certified by a Virginia licensed Professional Engineer as less than the full height of the tower.

The specific site where Arcola Towers, LLC would like to establish a telecommunication tower is located within the public right-of-way area at the intersection of the Eastern Bypass, US 17 Spur, East Lee Highway and Lee Highway. However, should a text amendment to Section 9-18.10 *Setbacks* be adopted by Town Council, the setback reduction would apply to all properties located within the PSP District.

## BACKGROUND

The Applicant is proposing to construct a 150-foot tall telecommunication tower on a parcel of land leased from the Virginia Department of Transportation (VDOT), within the Eastern Bypass U.S. Route 17 Spur. The proposed location for the tower, adjacent to an existing stormwater management facility that is maintained by VDOT, will not meet the required 100-percent setback requirement that is equal to the height of the 150-foot tower. A copy of the application documents have been included with this staff report as [Attachment A](#).

Telecommunication towers are allowed in all Zoning Districts as a Permissible Use that requires the approval of a Special Use Permit by Town Council following a public hearing before both the Planning Commission and Town Council. Zoning Ordinance Section 9-18 *Telecommunications Facilities* regulates towers that are constructed within the Town boundaries, and includes both minimum standards that all towers must meet, as well as factors that must be considered as a part of all Special Use Permits for towers. A copy of Section 9-18 of the Ordinance has been included with this staff report as [Attachment B](#).

Zoning Ordinance Section 9-18.10 *Setbacks* requires that a tower be located no closer to any property line than the full height of the tower. This fall zone ensures that a tower collapse will be completely contained within the property boundaries. The fall zone setback required by Section 9-18.10 cannot currently be waived or modified by Town Council as a part of the Special Use Permit process.

Local jurisdictions in the area differ in setback requirements for telecommunications facilities, as shown in the table below. Generally speaking, about half of local jurisdictions require a setback equal to the full height of the tower without the ability to reduce the setback; about half of jurisdictions surveyed allow for a setback that is less than the full height of the tower, most often with engineering certification provided to demonstrate the actual fall zone radius. The applicant has provided a copy of a fall zone certification letter prepared by an engineer as an example of the engineering certification that could be provided as a part of an application to justify a fall zone that is less than 100% of the tower height, included with this staff report as [Attachment C](#).

<b>Telecommunications Facilities – Setback Requirements</b> <i>Setback reduction allowed to less than the full height of the tower.</i>		
<b>Jurisdiction</b>	<b>Setback Reduction Allowed</b>	<b>Setback Requirements</b>
<b>Fairfax City</b>	Yes	Minimum setback equal to 110% of the tower height, except for monopoles certified by an engineer where the setback is reduced to the minimum setback for the district.
<b>Fauquier County</b>	Yes	Towers must be set back a distance equal to the height of the tower, except where the setback is reduced to no less than the fall zone as determined by an engineering design as a part of the legislative approval process.
<b>Culpeper County</b>	No	Towers must be designed to collapse within the lot lines.
<b>Town of Culpeper</b>	No	Towers must be set back at least the minimum setback for the district, and must be designed to fall within the boundaries of the property, except where a permanent easement is obtained from an adjoining property owner. No habitable structure shall be located within the fall zone.
<b>Prince William County</b>	No	Setback of twice the tower height for all property lines that abut residential or agricultural properties; minimum setback of 200 feet from all public streets, with an additional setback equal to the tower height for all towers over 200 feet in height. The tower must be designed to collapse within the property boundaries.
<b>Rappahannock County</b>	No	For any tower over 50 feet in height, a minimum setback equal to 110% of the tower height is required, and must be contained entirely within the subject property. Within the setback, the property owner may erect structures at their own risk.
<b>Spotsylvania County</b>	Yes	Towers must be set back from property lines at least the minimum setback for the district. A certified engineering statement must be provided to specify the tower design, including breakpoints.
<b>Loudoun County</b>	Yes	Public towers must be set back equal to the height of the tower. Commercial monopoles and towers must be set back 1 foot for every 5 feet of tower height.

The Applicant has requested that the proposed text amendment apply solely to those properties that are located within the Public-Semi-Public Institutional District. The Ordinance describes the intent of this district in Section 3-4.9.1 *Legislative Intent* as:

*This district is intended to provide for major public, semi-public, and institutional uses, to facilitate future growth of such uses within the district in accordance with the objectives, policies and proposals of the Comprehensive Plan, including the encouragement of convenient and safe nearby residential neighborhoods, and to provide evidence on the Zoning Map of the nature of land use planned for this district.*

Ordinance Section 3-4.9 includes a list of *Permitted Uses* (by-right) and *Permissible Uses* (by special use permit upon approval of the Town Council) that are allowable in the PSP district. The listed uses include child care centers, community buildings, nursing homes, parks, governmental buildings, hospitals, schools and treatment plants; a full list of Permitted and Permissible uses is included as Attachment D.

The Comprehensive Plan, Plan Warrenton 2020, includes both Public/Semi-Public Non-Intensive and Public/Semi-Public Intensive as designations on the Future Land Use Map. The Comprehensive Plan describes Public/Semi-Public Uses as land and facilities owned by Town Council, The Fauquier County Board of Supervisors, the Fauquier County School Board, the Commonwealth of Virginia or the Fauquier Hospital, and generally planned for school, library, government, recreation, and health facility uses and expansions, to include municipal parking lots, court buildings, public parks and the cemetery.

The Town currently contains 499.24 acres of land zoned to the PSP district; of this total area, there are 86 parcels consisting of 405.13 acres of tax parcel land. The majority of parcels currently zoned to the PSP district are developed with structures or uses, with some limited area for future expansion. A map showing the location of tax parcels zoned to the PSP district has been included with this staff report as Attachment E. Given that the text amendment proposed by the Applicant will apply to all PSP-zoned land within the Town, a setback reduction to less than the total height of the tower has the potential to affect all PSP-zoned parcels and land, all properties abutting the district boundary, as well as the improvements located therein.

Zoning Ordinance Section 9-18.10 *Setbacks* states:

*Towers shall be set back a distance of at least one hundred (100) percent of the height of the tower from the boundaries of the property on which the tower is located.*

The Applicant has proposed new language for Section 9-18.10, where the tower setback from property lines shall be equal to the certified fall zone, to state:

*Towers shall be set back a distance of at least one hundred (100) percent of the height of the tower from the boundaries of the property on which the tower is located. On properties located in a PSP District (Public-Semi-Public Institutional District), towers shall only be required to be setback a distance of at least one hundred (100) percent of the certified fall zone, as certified by a Virginia Professional Engineer in a letter which includes the Professional Engineer's signature and seal.*

A *fall zone* is the maximum distance that a tower will fall as measured from the center point of the tower, or, the largest expected radius in which a telecommunication tower could potentially collapse in the event of a failure. A *certified fall zone* is determined by a Professional Engineer, where the Engineer determines that due to the physical properties of the tower, that in the case of a failure the tower will collapse within a radius that is smaller than the full height of the tower.

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The proposed text language as proposed by the Applicant includes the statement “*towers shall only be required to be setback a distance of at least one hundred (100) percent of the certified fall zone*”. This “shall” statement would in effect require that Town Council allow a setback less than the full height of the tower upon approval of a Special Use Permit application that includes a fall zone certified by an engineer.

## **AGENCY REVIEW**

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The specific location where the Applicant desires to construct a telecommunications tower is located on property associated with the U.S. Route 17 Spur, owned by VDOT. VDOT has reviewed the proposed tower, and approved a location adjacent to an existing stormwater management facility. The tower location as approved by VDOT will not allow the proposed 150-foot tall telecommunications tower to meet the setback as required by Ordinance Section 9-18.10 – *Setbacks*. The proposed tower is located 75 feet away from the north-eastern property boundary, which equals a setback from the property line of 50% of the tower height. A map showing the tower location approved by VDOT overlain on aerial imagery data is included as Attachment F.

The requested text amendment as well as the drawings depicting the specific location where the Applicant desires to construct a telecommunications facility was provided for review to both the Town of Warrenton Public Works Department and to the VDOT Warrenton Residency Office. Responses as provided from both agencies have been included with this staff report as Attachment G.

Responses provided by the local VDOT office and the Town Public Works Department are advisory in nature, and will apply to future approvals should this text amendment be adopted by Town Council. Should the text amendment be adopted, the telecommunications facility will be required to obtain the approval of a Special Use Permit from Town Council per Ordinance Section 3-4.9.3 *Permissible Uses* and the standards found in Section 9-18 *Telecommunications Facilities*, followed by approval of a Site Development Plan per Ordinance Article 10 *Site Development Plans*, and Building, Zoning and Land Disturbing Permits to authorize construction.

The Applicant has provided a letter prepared by Alexander J. Leadore, P.E. of Morris and Ritchie Associates, Inc., dated December 11, 2023 that certifies that the proposed 150-foot tall tower has been designed so as to fail at the midpoint of the tower, creating a certified fall zone of 75 feet from the center point of the tower. This letter, which includes a description of how the tower has been designed to break and fall in on itself, has been included with this staff report as Attachment H.

## **PROCESS**

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### **Planning Commission Work Session – November 28, 2023**

During the November 28, 2023 work session, the Applicant provided testimony to the Commission regarding the importance of cell phone service during recovery following natural disasters such as hurricanes, as well as attested to the general safety of telecommunication towers. The Applicant stated that a certified fall zone, in comparison to a setback equal to the full height of the tower, achieves the same safety goal but allows more properties to be available for tower placement.

The Planning Commission members asked the Applicant for additional information regarding codes and standards regulating tower construction, such as regulations for towers to withstand wind speeds and vehicle strikes. The Applicant stated that he could provide information from the American National Standards Institute/ANSI and American Society of Civil Engineers/ASCE regarding engineering requirements for tower design.

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Given the Applicant’s statements regarding the safety of towers and the rarity of collapse, the Commission asked the applicant whether they could provide information on failure rate tracking at a national level, as well as the percentage of jurisdictions nation-wide that allow for setbacks or certified fall zones of less than the full height of the tower. The Applicant stated that he was not aware of a tracking system but would research this matter.

Commission members expressed concerns about noise associated with telecommunication towers, such as generators, and asked the Applicant whether the tower compound would include a generator. The Applicant stated that telecommunication facilities generally include emergency generators that operate during power outages as well as for weekly testing. In response to the Commission’s concerns regarding noise, the Applicant stated that generators typically produce a noise level of about 60 decibels at the property line.

At the close of discussion, the Planning Commission inquired about the possibility of having a third-party assessment of fall zone criteria provided for their consideration.

### **Planning Commission Public Hearing – December 19, 2023**

Following the November 28, 2023 work session, the telecommunications consultant CityScape Consultants, Inc. was retained to provide a third-party assessment of fall zone setbacks and regulatory impacts. A copy of the memo prepared by CityScape dated December 13, 2023, has been included with this staff report as Attachment I.

The CityScape memo discusses five questions about reduced fall-zone setbacks through the use of engineering technology, where these questions were posed by Planning Commission members during the November 28, 2023 work session. The five questions, along with a brief synopsis of the responses provided by CityScape are:

*1. What percent of localities allow “breakpoint” technology in their zoning regulations?*

A firm number on how many local jurisdictions allow the use of breakpoint technology cannot be provided, however CityScape routinely recommends the inclusion of breakpoint technology when drafting proposed zoning ordinances. Additionally, the memo states that CityScape provided breakpoint provisions during their drafting of a revised telecommunications ordinance for Fauquier County.

*2. Is it legal to allow “breakpoint” technology in one zoning district and not others where towers are allowed?*

The CityScape memo includes a brief discussion of federal law and how this could be applied to questions of discrimination. The memo includes a recommendation that the Town consider allowing the use of this technology in all zoning districts.

*3. Breakpoint technology design parameters, specifically when and how the communications facility was to fail, including instances where a vehicle was to strike a wireless communications facility.*

This section of the memo refers to a definition for breakpoint technology included as a part of the response to question #4.

*4. What are the typical standards/best practices that jurisdictions include in their zoning ordinances for “breakpoint” technology?*

The CityScape memo provides a proposed definition for Breakpoint design technology, which includes designing a structure so that one point of the structure is at least 5% more susceptible to failure, so that should a failure occur, that point of the structure should be the specific area that fails and not at the base of the tower. This section includes two new standards for inclusion in the Zoning Ordinance, regarding setbacks for telecommunications structures that both do and do not include the use of breakpoint technology, where a reduced setback would be appropriate for those towers that have been certified by a Professional Engineer to have a designated failure point that is less than the full height of the tower.

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5. Generally, when, and where is “breakpoint” technology appropriate or not appropriate for wireless infrastructure?

The memo states that breakpoint technology is generally utilized for failures that involve wind forces and blowing debris, but is not effective in cases of vehicular collision with the base of the tower structure. Additionally, the CityScape memo notes that breakpoint and similar technologies are best suited for monopole structures, as opposed to other types of telecommunication towers or structures.

As a part of the December 19, 2023 public hearing, the Planning Commission members noted that they had not received the CityScape memo sufficiently prior to the meeting so as to thoroughly review the memo. The Commission members indicated that they would like to defer action on the requested text amendment so as to have adequate time to review the memo. At the applicant’s request, the text amendment was deferred from the regularly scheduled meeting in January to the public meeting on February 20, 2024, as the applicant had prior commitments and could not be present for the January meeting. Given this, the Planning Commission moved to defer action and leave the public hearing open until the February meeting.

#### STAFF RECOMMENDATION

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Pattern motions of approval and denial have been provided as attachments to this staff report.

Staff recommends that should the Planning Commission issue a recommendation of approval for this text amendment, that the proposed text language should be revised to allow approval of a tower with a reduced setback based upon a certified fall zone *only where this is appropriate* given the surrounding conditions as determined by Town Council. As proposed, the text amendment language provided by the Applicant would *require* that Town Council allow a setback of less than the full height of the tower when provided with a fall zone certified by a Professional Engineer, regardless of the location or surrounding conditions.

Staff suggests the following language for Planning Commission consideration:

*Towers shall be set back a distance of at least one hundred (100) percent of the height of the tower from the boundaries of the property on which the tower is located. On properties located in a PSP District (Public-Semi-Public Institutional District), towers shall only be required to may be setback a distance of at least one hundred (100) percent of the certified fall zone, as certified upon certification by a Virginia Professional Engineer in a letter which includes the Professional Engineer’s signature and seal, and where Town Council makes a finding that a setback of less than one hundred (100) percent of the tower height is appropriate for the location of the facility.*

Staff is requesting that the Commission hold a public hearing to discuss the proposed text amendment and the contents of the CityScape memo. Per Section 11-3.9.7 *Planning Commission Review*, the planning commission must make a recommendation to Town Council within 100 days following the first work session, which falls on Thursday, March 7, 2024. Given this, the Planning Commission must make a recommendation of approval or denial to Town Council as a part of the February 20, 2024 meeting. Alternatively, the applicant may formally request a deferral of up to 90 days, acknowledging that the 100-day deadline for Planning Commission action is waived.

Three resolutions have been provided as attachments to this staff report for consideration by the Planning Commission:

- A recommendation of Approval to Town Council for the Applicant’s proposed language.
- A recommendation of Approval to Town Council for Staff’s alternative language.
- A recommendation of Denial to Town Council.

**Service Level / Collaborative Impact**

None

**Fiscal Impact**

A fiscal impact analysis has not been conducted.

**Legal Impact**

Any amendment to the setback requirement found in Section 9-18.10 will apply to all properties within the Town, unless specifically restricted to the PSP District as a part of the amended ordinance language.

A reduction in the required setback to property boundaries to less than 100-percent of the tower height may impact neighboring properties and roadways that are located within the 100-percent setback area.

Telecommunication towers are listed as a Permissible Use in all zoning districts, where towers require the approval of a Special Use Permit from Town Council, according to the standards found in Ordinance Section 9-18 *Telecommunications Facilities* and Section 11-3.10 *Special Use Permits and Waivers*, to include the 32 *Evaluation Criteria* listed in Section 11-3.10.3. Should the proposed text amendment be adopted by Town Council, all applications for a telecommunication tower will require the approval of a Special Use Permit, where the details of the specific tower and location will be evaluated for suitability.

**ATTACHMENTS**

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1. Attachment A: Application Documents
2. Attachment B: Zoning Ordinance Section 9-18 Telecommunications Facilities
3. Attachment C: Example Fall Zone Certification Letter
4. Attachment D: Ordinance Section 3-4.9 – Permitted and Permissible Uses
5. Attachment E: Location Map - PSP-Zoned Tax Parcels
6. Attachment F: Plan Showing Tower Location Overlain on GIS Aerial Imagery
7. Attachment G: Agency Review Comments – VDOT & Public Works
8. Attachment H: Certified Fall Zone Letter, Proposed Tower Site, December 11, 2023
9. Attachment I: CityScape Memo Regarding Breakpoint Regulations, December 13, 2023