



ALBEMARLE COUNTY PLANNING
STAFF REPORT SUMMARY

Project Name: SP201700026 – Western Albemarle High School – Tier III Personal Wireless Service Facility	Staff: Christopher Perez
Planning Commission Public Hearing: June 26, 2018	Board of Supervisors Hearing: Tentatively scheduled for September 10, 2018
Owners: County of Albemarle School Board	Applicant: Milestone Communications, Cristian Hernandez
Acreage: 75 acres (Lease Area: 2,625 square feet)	Special Use Permit for: 10.2.2(48) Special Use Permit, which allows for Tier III personal wireless facilities in the RA Zoning District.
TMP: Tax Map 56 Parcel 17C Location: 5941 Rockfish Gap Turnpike, Crozet (Western Albemarle High School)	By-right use: Rural Areas (RA) and Entrance Corridor (EC)
Magisterial District: White Hall District	Proffers/Conditions: No
Requested # of Dwelling Units/Lots: N/A	DA - RA – X
Proposal: To install a 145-foot tall steel monopole, three flush mounted antenna arrays, and associated ground-equipment in a 2,625 square foot fenced compound.	Comp. Plan Designation: Rural Area in Rural Area 3.
Character of Property: A large partially developed county owned property that is used as a public high school and contains many recreational fields void of vegetation (soccer fields, football field, baseball field, tennis courts, and other multipurpose fields).	Use of Surrounding Properties: To the north is Old Trail development, a high-density mixed-use residential development. Also, to the north is Henley Middle School and Brownsville Elementary School. The rest of the surrounding land is Rural Area, small lot, residential development. [See Attachment A for aerial photographs of the surrounding area.]
Factors Favorable: <ol style="list-style-type: none"> 1. The applicant has proposed evergreen landscaping as suggested by the ARB, which will help minimize visibility from the EC/Scenic Byway. 2. Increase wireless coverage in the area allowing people to make emergency calls. 	Factors Unfavorable: <ol style="list-style-type: none"> 1. The proposal fails to meet section 5.1.40(b)(6) of the ordinance because the location and height of the monopole does not provide adequate opportunities for screening and the facility is not sufficiently sited to minimize its visibility from adjacent parcels. 2. The proposal fails to meet section 5.1.40(b)(2)(b) of the ordinance because the size of the Shentel antenna is larger than 1,400 square inches. This increases the bulk atop the tower, which increases visibility of a highly visible tower. 3. ARB does not support or recommend approval of the facility. 4. Under FCC regulations if approved the monopole would be permitted to increase in height by 20 feet and install antenna extending up to 20 feet from the monopole which would further increase the visibility of the facility. 5. The facility is inconsistent with the Comprehensive Plan.
Zoning Ordinance Waivers and Recommendations: <ol style="list-style-type: none"> 1. Included are special exceptions (SE) for Sections 5.1.40(b)(2)(b) (size of antenna), 5.1.40(b)(2)(c) (antenna projection), and 4.2.5 (disturbance of critical slopes). Based on the findings presented in the staff report, staff recommends denial of SP201700026 and the SE to Sections 5.1.40(b)(2)(b) (size). <i>Staff has no objections to the approval of the other special exceptions.</i> 	

STAFF CONTACT:
PLANNING COMMISSION:
BOARD OF SUPERVISORS:

Christopher Perez
June 26, 2018
Tentatively scheduled for September 12, 2018

PETITION:

PROJECT: SP201700026 – Western Albemarle High School – Tier III Personal Wireless Service Facility

MAGISTERIAL DISTRICT: White Hall District

TAX MAP/PARCEL: 05600-00-00-017C0

LOCATION: 5941 Rockfish Gap Turnpike, Crozet (Western Albemarle High School)

PROPOSED: To install a 145-foot tall steel monopole, three flush mounted antenna arrays, and associated ground-equipment in a 2,625 square foot fenced compound.

PETITION: Section 10.2.2(48) of the zoning ordinance which allows for Tier III personal wireless service facilities in the RA, Rural Areas district.

ZONING CATEGORY/GENERAL USAGE: RA Rural Areas - agricultural, forestal, and fishery uses; residential density (0.5 unit/acre in development lots), Entrance Corridor - Overlay to protect properties of historic, architectural or cultural significance from visual impacts of development along routes of tourist access.

COMPREHENSIVE PLAN LAND USE/DENSITY: Rural Area 3 - preserve and protect agricultural, forestal, open space, and natural, historic and scenic resources/ density (0.5 unit/ acre in development lots)

CHARACTER OF THE AREA:

Attachment A contains an aerial photograph of the area. The area is a mixture of residential development, forests, and public schools. To the north is Rte. 250, Henley Middle School, Brownsville Elementary School the residential development of Old Trail subdivision, and a 7 lot subdivision. To the east and west are a multitude of residential lots between 3 and 5 acres in size. To the south is an 84-acre partially wooded property owned by Yancy Mills Holding, which is bordered by I-64, which is 1,600 feet from the southern property boundary of the school.

RELAVENT PLANNING AND ZONING HISTORY:

ARB2017-119 WAHS Tier III PWSF - On January 12, 2018 the ARB considered the current proposal. The ARB did not support or recommend approval of the application because of visibility from the Entrance Corridor. They stated that the facility is not sited to minimize its visibility, particularly if visual impacts are to be resolved on site. If off-site wooded areas adjacent to the Rte. 250 were lost then the view of the monopole from the EC would increase dramatically. While the ARB did not support or recommend approval of the application for the monopole they were able to issue a certificate of appropriateness for the ground equipment and base station because these items are not be visible from the EC. [Attachment B]

SDP-402 Westside High School – Final Site Plan - The site plan for WAHS, titled Westside High School, was approved in 1975. The plan depicts the football field and, consequently, the creation of the critical slopes that are being impacted with the proposed travelway serving the proposed facility.

DETAILS OF THE PROPOSAL:

Request to install a 145-foot tall steel monopole, three flush mounted antenna arrays, and associated ground-equipment in a 2,625 square foot fenced compound. The facility is located 145 feet north of the football field. The site will be accessed by an existing access road through the school property served by Rte. 250. A short travelway extension will be provided behind the bleachers to link the school parking lot to the facility. [Attachment C]

The application includes special exceptions to disturbed critical slopes, to allow antenna to exceed the size of one thousand four hundred (1400) square inches, and to allow the closest point of the back of the antenna be more than twelve (12) inches from the facility, while maintaining the farthest point of the back be no more than eighteen (18) inches from the facility.

ANALYSIS OF THE SPECIAL USE PERMIT REQUEST:

Section 33.8 of the Zoning Ordinance states that the Planning Commission (PC) and Board of Supervisors (BOS) shall reasonably consider the following factors when reviewing and acting upon an application for a Special Use Permit:

No substantial detriment. The proposed special use will not be a substantial detriment to adjacent lots.

The primary impact of this facility will be visibility. The facility will not prevent the use of any lots. However, the facility will be highly visible from 4 adjacent residential lots that will be exposed to extreme skylit views of facility, in most instances with the upper 45 feet of the monopole above the treeline, visible from these homes, their driveways, and their back yards.

The facility will also be visible to approximately 12 other residential locations in the surrounding area; however, the level of visibility in these locations was not been field verified during the balloon test as these views are on private property. Rather the analysis was provided by County run viewshed mapping through GIS. For this facility, outside the 1/3 mile radius the visual impacts of the tower are sufficiently mitigated by distance and off site screening. [Attachment F] Staff opinion is that this level of visual impact is a detriment to the adjacent lots.

Character of district unchanged. The character of the district will not be changed by the proposed special use.

It is staff's opinion that the character of the district will be negatively affected by the use through a change in visibility. The negative visual impacts of the facility are being concentrated on 4 abutting residential properties. As they are exposed to extensive skylit views of the facility (as noted previously). This impact is inconsistent with the character of the Rural Area. The other 12 residential lots mentioned above are also experiencing a change in visibility; however, the extent of this change in visibility is unknown. But based on similar topography, distance, and tree heights can be assumed some experience similar views as the 4 known effected views.

Outside of these 16 properties, the regional impacts of the facility are currently limited based on the extent of the visual impacts as noted above. The ARB stated that the current screening of the monopole is provided primarily by off-site trees outside of the control of the School Board. Should these off-site wooded areas adjacent to the Rt. 250 EC be lost, the view of the monopole from the EC and surrounding areas is expected to increase dramatically. [Attachment E for photographs from the balloon test]

Harmony. The proposed special use will be in harmony with the purpose and intent of this chapter.

Staff has reviewed this request as it relates to the "purpose and intent" that is set forth in Sections 1.4.3 of the Zoning Ordinance, and as it relates to the intent of the Rural Areas (Section 10.1). This request is not consistent with either section. Section 1.4.3 states that the zoning ordinance is designed "to facilitate the creation of a convenient, attractive and harmonious community." The siting of this proposed facility does not create an attractive community for the abutting residential lots whose owners and their families are being burdened with the negative visual impacts of the facility. Section 10.1 states that the Rural Areas district is established with the intent of: "conservation of natural, scenic, and historic resources." The siting of this proposed facility does not conserve or preserve the natural/scenic views and vistas of the area for these abutting residential lots.

Harmony. The proposed special use will be in harmony with the uses permitted by right in the district
The proposed facility will not restrict by-right uses within the RA, Rural Areas district.

Harmony. The proposed special use will be in harmony with the regulations in Sec 5 as applicable

The location, height, and design of the monopole does not minimize visibility from adjacent properties.
(See below for in depth review of compliance with section 5.1.40 of the Zoning Ordinance)

Harmony. The proposed special use will be in harmony with the public health, safety and general welfare.

The proposed facility is in harmony with the public health and safety due to the fact that it does provide coverage allowing people to make emergency calls. The top array will be used by local emergency service providers. The proposed facility is not in harmony with the general welfare as the location, height, and design of the monopole does not minimize visibility from adjacent.

(See below for in depth review of compliance with section 5.1.40 of the Zoning Ordinance)

Consistency with the Comprehensive Plan. The use will be consistent with the Comprehensive Plan.

The Comprehensive Plan designates this area as Rural Area 3. This designation includes preservation and protection of agricultural, forestal, and open space, and natural, historic and scenic resources. The siting and design of the proposed facility does not conserve or preserve the natural/scenic views and vistas of the area. The negative visual impacts of the facility are being concentrated on abutting residential properties. As they are exposed to extensive skylit views of the facility (as noted previously). This impact is inconsistent with the character of the Rural Area. Additionally, while the regional impacts (beyond 1/3 mile) of the facility are currently limited based on the extent of the visual impacts as noted above. The ARB stated that the current screening of the monopole is provided primarily by off-site trees outside of the control of the School Board. Should these off-site wooded areas adjacent to the Rt. 250 EC be lost, the view of the monopole from the EC and surrounding areas is expected to increase dramatically.

Furthermore, the County adopted the Personal Wireless Service Facilities Policy as a component of the Comprehensive Plan. The Policy was put in place to ensure that the construction of new facilities have limited visual impact on the community. The proposed facility does not meet the following principles of the policy:

1) *Be designed to minimize visibility* - the location, height, and design of the facility fails to minimize visibility to abutting properties.

2) *Utilize existing structures where possible* – The football field has many existing wooden light poles around the football field. County staff suggested the applicant collocate their arrays on these poles. The applicant responded that the existing wooden poles would not be sufficient strength to hold the antenna nor of adequate height. Staff suggested that replacing the wooden light poles for multiple monopoles of comparable height and then mounting single antenna array at the top and the lights below may provide a sufficient collocation option. The applicant did not submit a response to the suggestion nor submit such a request. No applications for alternative sites or design have been submitted. Therefore, staff does not believe that the special use permitting process nor the denial of this application would have the effect of prohibiting or restricting the provision of personal wireless services.

3) *Mount antennas close to the supporting structure* – the extent of the SE request to the flush mount provisions of the ordinance meets this principle. The applicant has requested a SE to permit the closest point of the back of the antenna to project more than the permitted twelve (12) inches from the monopole. However, the farthest point of the back of the antenna shall not be more than eighteen (18) inches from the facility. With this request all arrays are still flush mounted.

4) *Not be located on ridgetops or along the ridgeline, and be provided with an adequate backdrop so that they are not skylined* – as previously stated in this report and will be discussed in more detail below, the facility will be visible from adjacent residential lots. The facility is highly skylit from abutting properties.

5) *Not adversely impact scenic resources* - the siting, height, and design of the proposed facility adversely impacts the scenic views and vistas of the abutting residential lots. Rte. 250 carries a Scenic Byway designation; however, the Scenic Byway as an avoidance area is not triggered by this application because the facility is not within 200 feet of the Scenic Byway. In this circumstance, the Scenic Byway is 1,450 feet north of the proposed facility. Regardless, the tower's visibility from the Scenic Byway is still a relevant factor and the ARB stated that visibility of the pole from the portion of the EC adjacent to the school property can be reduced with the addition of evergreen trees in the lawn area adjacent to the chain link fence and the retention of existing trees (and replacement of trees that die) in this area. The applicant has proposed evergreen landscaping as suggested by the ARB, which will help minimize visibility from the EC/Scenic Byway.

While the regional impacts (beyond 1/3 mile) of the facility are currently limited based on the extent of the visual impacts as noted above; the ARB stated that the current screening of the monopole is provided primarily by off-site trees outside of the control of the School Board. Should these off-site wooded areas adjacent to the Rt. 250 EC be lost, the view of the monopole from the EC and surrounding areas is expected to increase dramatically.

Compliance with Section 5.1.40 of the Zoning Ordinance

Each Tier III facility may be established upon approval of a special use permit issued pursuant to section 33.4 and 33.8 of this chapter, initiated upon an application satisfying the applicable requirements of subsection 5.1.40(a), and it shall be installed and operated in compliance with all applicable provisions of this chapter and the following:

1. The facility shall comply with subsection 5.1.40(b), 5.1.40(c), 5.1.40(d), 5.1.40(e), and 5.1.40(f) – (j) of the ordinance unless modified by the board of supervisors during special use permit review.
2. The facility shall comply with all conditions of approval of the special use permit.

The applicable requirements of subsection 5.1.40(a) *application for approval* and the requirements of section 33.4 *uniform procedures for special use permits* have been met. The requirements of subsection 5.1.40(c) *applicability of other regulations in this chapter* have been met. The County's specific design criteria for Tier III facilities set forth in section 5.1.40(b) are addressed as follows: [**Ordinance sections are in bold italics**]

Subsection 5.1.40(b): Development requirements. *Each facility or transmission equipment may be established upon approval as provided in subsection (c) provided that the application satisfies the applicable requirements of subsection (a) and demonstrates that the facility or transmission equipment will be installed and operated in compliance with all applicable provisions of this chapter, and the following:*

1. General Design. *The facility shall be designed, constructed and maintained as follows: (a) guy wires are prohibited (b) Outdoor lighting for the facility shall be permitted only during maintenance periods; regardless of the lumens emitted, each outdoor luminaire shall be fully shielded as required by section 4.17; provided that these restrictions shall not apply to any outdoor lighting required by federal law. (c) Any ground equipment shelter not located within an eligible support structure or an existing building shall be screened from all lot lines either by terrain, existing structures, existing vegetation, or by added vegetation approved by the agent. (d) A whip antenna less than six (6) inches in diameter may exceed the height of the facility, the eligible support structure, or the existing building. (e) A grounding rod, whose height shall not exceed two (2) feet and whose*

width shall not exceed one (1) inch in diameter at the base and tapering to a point, may be installed at the top of the facility, the eligible support structure, or the existing building.

The monopole does not require the installation of guy wires, nor will it be fitted with any whip antennas. No lighting is proposed with the facility. The ground equipment is screened by an 8-foot tall slatted chain link fence that surrounds the 2,625 square foot fenced compound as required by the ARB. All requirements of the above section have been met.

2. Antennas and associated equipment. Antennas and associated equipment that are not entirely within a proposed facility, an eligible support structure, or an existing building shall be subject to the following: (a) Number of arrays. The total number of arrays of antennas shall not exceed three (3). All types of antennas and dishes, regardless of their use, shall be counted toward the limit of three arrays.

Three arrays are currently proposed on the 145' monopole. The uppermost array, at 145' AGL, is intended to be dedicated to the school system. The next array down, at 135' AGL, is designated to Shentel. The 3rd array is located at 105' AGL and is not currently assigned to any providers at this time. However, the applicant has received letters of interest from both T-Mobile and Verizon Wireless indicating that they have evaluated the location of the proposed PWSF and have determined that it would meet future goals of such company's wireless networks. Lease negotiations for collocation are underway. The applicant also believes that AT&T would have interest in this site because of numerous dropped calls in this area and the County Schools use of AT&T. Final designs for the lowest array have not been determined or finalized at the time of the application; however, antenna array parameters for these 3 arrays shall not exceed maximum dimensions being considered for Shentel's array.

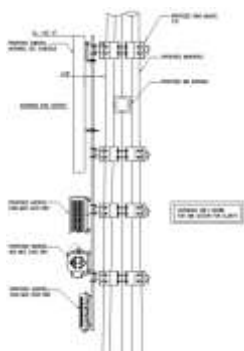
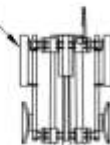
(b) Size. Each antenna proposed under the pending application shall not exceed the size shown on the application, which size shall not exceed one thousand four hundred (1400) square inches.

As the needs of the wireless community change, so too has the design and layout of the antennas for providers. Antennas have gotten larger. The ordinance limits antenna size to 1,400 square inches and limits the number of arrays to three. *All types of antennas and dishes, regardless of their use, shall be counted toward the limit of three arrays. An array consists of an orderly arrangement of antennas mounted at the same height on a tower and intended to transmit a signal providing coverage over a specific area for a single provider.*

In order to apply the County's ordinance to the rapidly changing wireless technology it has been County practice to permit multiple antennas and dishes at different heights serving a single provider to count as one array, as long as the total square inches making up the vertical array of a single provider does not exceed the 1,400 square inch antenna size. Staff permits this because the intent of the ordinance is upheld, which is to limit bulk at the top of the facility, which helps to minimize and mitigate visibility. If staff did not utilize this interpretation, then most facilities, including this one, would require special exceptions to the number of arrays to allow more than two providers on a single facility.

Take for instance, the uppermost array of this facility, which is dedicated to WAHS. The strict application of the regulations would have this array count as two arrays because there is an antenna and a dish below it at two different heights. However, staff permits this to count as a single array because the overall intent of the ordinance is met because the square inches of both devices are below 1,400 square inches size limit.

PROPOSED SCHOOL PANEL
AND MW ANTENNAS FLUSH AND
3 RRHS MOUNTED, SEE SHEET Z-8



The second array down is Shentel's, which contains 1 large antenna at 1,375 square inches and 3 remote radiohead (RRH) units which total 988.46 square inches¹ for a combined antenna size of 2,388.46 square inches. The RRH units are considered part of the antenna for purposes of measuring size. Because the size of the antenna is larger than the ordinance permits, the antenna shall either be counted as two arrays or a special exception is needed to permit antenna size to go beyond 1,400 square inches. As such, the applicant requests a special exception to section 5.1.40(b)(2)(b) to allow antenna size to exceed the 1,400 square inch size limit. Staff does not support the special exception request because the size of this antenna has the appearance of more than one array and increases the bulk and the mass at the top of the monopole, which increases its visibility. Staff's recommendation against this special exception is not the sole reason staff is recommending denial of the facility; rather, it is a contributing factor which increases visibility of an already highly visible tower. If the radioheads were removed, staff would still recommend denial of the facility. ***If the facility is approved staff***

¹ (1900 RRH = 254.4 square inches) + (2500 RRH = 485.46 square inches) + (800 RRH = 248.6 square inches) = 988.46 square inches

suggested these radioheads be taken off the monopole and relocated at ground level to reduce bulk at the top of the facility.

(c) Projection. No antenna shall project from the facility, structure or building beyond the minimum required by the mounting equipment, and in no case shall the closest point of the back of the antenna be more than twelve (12) inches from the facility, structure, or building, and in no case shall the farthest point of the back of the antenna be more than eighteen (18) inches from the facility, structure, or building.

The applicant requests a special exception to section 5.1.40(b)(2)(c) of the ordinance to permit the closest point of the back of the antenna to be more than 12 inches from the monopole; however, the request does not seek to permit the furthest point of the back of the antenna to be further than 18 inches from the monopole. The intent of this dual requirement is to maintain flush mounting while permitting tilt of antennas. The proposed facility does not utilize tilt in the antenna attachment or arrangement; rather, the antenna are to remain vertical to the monopole. The maximum standoff distance of the furthest point of the back of the antennas shall remain no further than 18 inches from the monopole. Granting this request maintains the flush mount provisions in the ordinance and does not affect visibility. For the above reasons staff recommends approval of the SE request.

(d) Color. Each antenna and associated equipment shall be a color that matches the facility, structure or building.

All antenna will be painted to match the color of the monopole, Java Brown.

3. Tree conservation plan; content. Before the building official issues a building permit for the facility, the applicant shall submit a tree conservation plan prepared by a certified arborist. The plan shall be submitted to the agent for review and approval to ensure that all applicable requirements have been satisfied. The plan shall specify tree protection methods and procedures, identify all existing trees to be removed on the parcel for the installation, operation and maintenance of the facility, and identify all dead and dying trees that are recommended to be removed. In approving the plan, the agent may identify additional trees or lands up to two hundred (200) feet from the lease area to be included in the plan.

As part of the request to locate the monopole and the ground equipment, 79 trees are to be removed.

In an effort to maintain existing onsite screening, the applicant proposes to preserve existing trees on the school property within 180 – 550 feet radius of the facility. [Attachment C, Sheet Z-1]

On the northern and eastern most abutting parcels, TMP 56-17 & TMP 56-16D, is a stream with a 200 foot WPO buffer that is required by County code. Based on County code this area is to remain wooded and is not to be disturbed. This offsite environmental feature provides an additional 200 feet of permanent screening on offsite properties, which is regulated by County code. [Attachment A]

The ARB did not support or recommend approval of the application because of visibility. They stated that the facility is not sited to minimize its visibility, particularly if visual impacts are to be resolved on site. If off-site wooded areas adjacent to the Rte. 250 were lost then the view of the monopole from the EC would increase dramatically. Planning staff agrees with this finding. Additionally, if abutting or nearby wooded properties used their full by-right potential and fell trees to develop their properties further, possibly to put an addition onto their home or to build a first home on a vacant lot) the visibility of the tower from the district as a whole may be dramatically increased.

4. Creation of slopes steeper than 2:1. No slopes associated with the installation of the facility and its accessory uses shall be created that are steeper than 2:1 unless retaining walls, revetments, or other stabilization measures acceptable to the county engineer are employed.

No 2:1 slopes are proposed to be created with the installation of the facility.

5. Ground equipment shelter; fencing. Any ground equipment shelter not located within an existing building shall be fenced only with the approval of the agent upon finding that the fence: (i) would protect the facility from trespass in areas of high volumes of vehicular or pedestrian traffic or, in the rural areas, to protect the facility from livestock or wildlife; (ii) would not be detrimental to the character of the area; and (iii) would not be detrimental to the public health, safety or general welfare.

The ground equipment is screened by an 8-foot tall slatted chain link fence that surrounds the lease area. Screening the ground equipment are eight (8) new plantings of agent approved evergreen screening trees (Eastern Red Cedar) that shall be 8 - 9 foot tall at the time of planting. [Attachment C, Sheet Z-12] Staff has determined that a fence is necessary because of the proximity to the school and associated playing fields. The fence will aid in preventing

trespass. The fence is not expected to be visible from adjacent residential properties or from Rte. 250 due to existing vegetation and distance from the roadway. The fence and ground equipment has received a certificate of appropriateness from the ARB.

6. Screening and siting to minimize visibility. The site shall provide adequate opportunities for screening and the facility shall be sited to minimize its visibility from adjacent parcels and streets, regardless of their distance from the facility. The facility also shall be sited to minimize its visibility from any entrance corridor overlay district, state scenic river, national park or national forest, regardless of whether the site is adjacent to the district, river, park or forest. If the facility would be located on lands subject to a conservation easement or an open space easement, or adjacent to a conservation easement or open space easement, the facility shall be sited so that it is not visible from any resources specifically identified for protection in the deed of easement.

A balloon test ² was conducted on Thursday, December 7, 2017. During the balloon test staff traveled Rockfish Gap Turnpike (Rte. 250), Old Trail Drive, Gold Drive, Ashlar Ave, Addler Hill Road, Claremont Lane, Woodbourne Lane, Woodbourne Court, Beechen lane, Fielding Run Drive, Forest Glen Drive, Savannah Court, Millers School Road (Rte. 635), Crozet Avenue (Rte. 240), Emerald Lane, Hillsboro Lane (Rte. 797), Half Mile Branch Road (Rte. 684) to observe the visibility of the balloon from these streets as well as adjacent parcels.

The balloon was visible on Rte. 250, the Entrance Corridor, north of the facility from three prominent locations:

- 1) At the entrance of Old Trail subdivision, listed in Attachment E as “view A”.
- 2) Along the frontage of the WAHS property/TMP 56-17C, listed in Attachment E as “view A1”.
- 3) Along the frontage of TMP 56-17F (5861 Rockfish Gap Turnpike) a property that abuts the site, listed in Attachment E as “view B” and “view B1”.

To enhance onsite screening of the facility from locations 1 and 2 listed above, the applicant proposes a row of 22 Eastern Red Cedar trees along the frontage of the WAHS property/TMP 56-17C. [Attachment C, Sheet Z-12] These plantings are approximately 1,700 feet away from the facility and are anticipated to sufficiently reduce visibility of the monopole from these viewpoints due to elevation and distance of the plantings to the monopole. Prior to planting, staff requests that the row of landscaping be shifted away from the overhead utility lines. The view of the monopole from location 3 listed above remains unmitigated (TMP 56-17F, 5861 Rockfish Gap Turnpike), listed in Attachment E as “view B” and “view B1”.

The balloon was also visible, north of the facility, from TMP 56-17G1 (5805 Rockfish Gap Turnpike), listed in Attachment E as “view C”. The balloon was visible from Savannah Court, east of the facility, fronting TMP 56-16E, 479 Savannah Court, listed in Attachment E as “view D”. As you enter the property the balloon becomes highly visible and extends over the roofline of the home.

The balloon was visible from Emerald Lane, south of the facility, which fronts TMP 56-19F, 5860 Emerald Lane, listed in Attachment E as “view E and view F”. In an attempt to screen the facility along the southern view of the property the applicant proposes two rows of Eastern Red Cedars. The first row is provided directly adjacent to the facility and contains 8 plantings, and the other row is provided 400 feet away from the facility and contains 6 plantings on the other side of the football field. However due to the proximity of the screening trees to the facility and their similar topographic elevations in comparison to the lower elevation of Emerald Lane, these plantings are anticipated to only screen the lower 30 feet of the facility. [Attachment E] As a result, the southern view of the monopole remains unmitigated.

In summary, based on the balloon test the proposed monopole will be highly visible from the following locations:

- 1) Northern view – from Rte. 250 the EC fronting TMP 56-17F (5861 Rockfish Gap Turnpike), “view B” & “view B1”
- 2) Northern view – from TMP 56-17G1 (5805 Rockfish Gap Turnpike), “view C”
- 3) Eastern view – from Savannah Court, from TMP 56-16E (479 Savannah Court), “view D”
- 4) Southern view – from Emerald Court, from TMP 56-19F (5860 Emerald Lane), “view E and view F”

While it is not expected that facilities of this nature be totally concealed, staffs opinion is that the level of visibility from adjacent properties is significant. Additionally, staff has prepared a viewshed map³, Attachment F. This map utilizes the height of the tower provided by the applicant, the County’s data on topography and tree heights and

² A balloon test consists of raising one or more balloons from the site to a height equal to the proposed facility (County Code § 18-5.1.40(a)(6)(c)).

- ³ The elevation surface used to create the viewshed was derived from LiDAR data flown in late 2015. This accounts for the height of buildings/vegetation/etc. at the date of acquisition.
- The land cover data used to identify tree canopy is from the statewide land cover dataset created by Worldview and organized by VGIN. In Albemarle, they used aerial photos from 2013.
- Building footprints, parcels, and everything else on the map is from the county.

canopy to conservatively estimate where the tower will be visible. Based on the balloon test staff has high confidence in the accuracy of this map. It shows that the tower would be visible from 12 additional nearby properties to the north, east, south, and west of the site, as depicted on the map in red. The map does not identify the level of visibility from these locations, but merely references that the tower is visible from these location. The maps were developed after the balloon test and staff does not have photographs from all of these locations, as many of these locations are in the middle of private properties. This map is merely another tool to consider visual impacts of the facility on surrounding properties.

7. Open space plan resources. The facility shall not adversely impact resources identified in the natural resources chapter of the county's comprehensive plan and the parks and green systems chapters in any county master plan.

The siting and design of the proposed facility has limited impact on the Entrance Corridor and the Scenic Byway designation. The Scenic Byway (Rte. 250) designation as an avoidance area is not triggered by this application because the facility is not within 200 feet of the Scenic Byway. In this circumstance, the Scenic Byway is 1,450 feet north of the proposed facility. Regardless, the tower's visibility from the Scenic Byway is still a relevant factor to consider for the SUP review and the ARB stated that visibility of the tower from the portion of the EC adjacent to the school property can be reduced with the addition of evergreen trees in the lawn area adjacent to the chain link fence and the retention of existing trees (and replacement of trees that die) in this area. The applicant has proposed evergreen landscaping as suggested by the ARB, which will help minimize visibility from the EC/Scenic Byway.

While the regional impacts (beyond 1/3 mile) of the facility are currently limited based on the extent of the visual impacts as noted above; the ARB stated that the current screening of the monopole is provided primarily by off-site trees outside of the control of the School Board. Should these off-site wooded areas adjacent to the Rt. 250 EC be lost, the view of the monopole from the EC and surrounding areas is expected to increase dramatically.

11. Color of monopole, antennas, and equipment. Each monopole shall be a dark brown natural or painted wood color that blends into the surrounding trees. The antennas, supporting brackets, and all other equipment attached to the monopole shall be a color that closely matches that of the monopole. The ground equipment, the ground equipment shelter, and the concrete pad shall also be a color that closely matches that of the monopole, provided that the ground equipment and the concrete pad need not closely match the color of the monopole if they are enclosed within a ground equipment shelter or within or behind an approved structure, façade or fencing that: (i) is a color that closely matches that of the monopole; (ii) is consistent with the character of the area; and (iii) makes the ground equipment, ground equipment shelter, and the concrete pad invisible at any time of year from any other parcel or a public or private street.

The applicant meets the requirements of this section by painting the facility and the monopole Java Brown.

13. Special use permit conditions. All conditions of approval of a special use permit.

The facility shall comply with all conditions of approval of the special use permit.

Section 704(a) (7) (b) (I) (II) of The Telecommunications Act of 1996:

This application is subject to the Telecommunications Act of 1996, which provides in part that the regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof (I) shall not unreasonably discriminate among providers of functionally equivalent services; (II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.⁴⁷ U.S.C.

In order to operate this facility, the applicant is required to comply with the FCC guidelines for radio frequency emissions that are intended to protect the public health and safety. Neither the Comprehensive Plan nor the Zoning Ordinance prohibits the provision of personal wireless services. However, both do implement specific policies and regulations for the siting and design of wireless facilities. The applicant has not provided any additional information regarding the availability, or absence of alternative sites that could serve the same areas that would be covered with the proposed facility at this site. No applications for alternative sites have been submitted. Therefore, staff does not believe that the special use permitting process nor the denial of this application would have the effect of prohibiting or restricting the provision of personal wireless services.

Other Relevant Information

A) FCC regulations would apply to a tower constructed as proposed in this application. The regulations would limit the County's ability to review additional uses and modifications to the facility once approved. The County may only deny changes to the facility *if*:

- The tower is increased in height by more than 20 feet; or
- Antenna or other equipment would protrude more than 20 feet from the tower; or

- More than 4 ground-based cabinets are added; or
- Excavation occurs outside the lease area; or
- The change would defeat concealment elements.

Simply stated, if the County approves this monopole at 145 feet, the applicant can administratively apply for a one time increase in height by 20 feet for a total height of 165 feet. It also means that if the county approves the special exception request to increase the standoff distance of the antenna, the applicant can administratively request an increase in standoff distance to a maximum of 20 feet. [See Attachment G for additional information on this issue.]

It is staff's opinion that any administrative increase in height or antenna standoff would further increase the visual impacts of the facility. If the facility is approved staff recommends a condition which limits the height of the facility to 145 feet after the onetime administrative increase.

B) Citizen Communication about the Proposed Facility [Attachment H]

C) Special Exception request to allow disturbance of critical slopes

The topography provided on the site plan was field run by the Timmons Group in September 2017 and depicts different areas of critical slopes than those provided on the County GIS. Field run topography is more accurate than County topography and is permitted to be used on development applications.

As proposed the facility relies on the disturbance of critical slopes for access. Installation of the proposed travelway requires 1,837 SF of critical slopes to be impacted. In order to permit this disturbance a special exception is required under Section 4.2.3(b) and Section 4.2.5(2)(3) of the Zoning Ordinance. The Board of Supervisors may grant a special exception to disturb critical slopes onsite upon the following considerations: (Ordinance language is in bold. Staff comment is in plain text)

Areas	Acres	
Total Site Disturbed	0.28 acres of a 75 acre property approximately	
Critical Slopes Disturbed	0.04	14% of disturbed area is critical slopes

Exemptions to critical slopes waivers for driveways, roads and utilities without reasonable alternative locations: This disturbance is not exempt.

Compliance with Zoning Ordinance 18-4.2:

“movement of soil and rock”

Proper slope construction, control of drainage, and vegetative stabilization will prevent any movement of soil.

“excessive stormwater runoff”

Less than approximately 25% of the critical slopes to be disturbed will be converted to a gravel drive aisle and the remaining will remain critical slope. This will not result in excessive stormwater runoff.

“siltation”

VSMP permitting, inspections and bonding by the County will ensure siltation control during construction. Proper stabilization and maintenance will ensure long term stability.

“loss of aesthetic resource”

This area is not wooded and the proposed grading will not change the character of the slopes once the slope is revegetated with grass. The critical slopes were created during the grading for the football field and track.

“septic effluent”

Not applicable to towers. The amount of proposed grading is minimal and there are no known septic effluent issues in this area.

Based on the review above, there are no engineering concerns, which prohibit the disturbance of the critical slopes as shown. Planning staff reviewed the following factors under Section 4.2.5(a)(3) to be considered for this special exception:

a. Strict application of the requirements of section 4.2 would not forward the purposes of this chapter or otherwise serve the public health, safety or welfare;

b. Alternatives proposed by the developer or subdivider would satisfy the intent and purposes of section 4.2 to at least an equivalent degree;

c. Due to the property's unusual size, topography, shape, location or other unusual conditions, excluding the proprietary interest of the developer or subdivider, prohibiting the disturbance of critical slopes would effectively prohibit or unreasonably restrict the use of the property or would result in significant degradation of the property or adjacent properties;

d. Granting the modification or waiver would serve a public purpose of greater import than would be served by strict application of the regulations sought to be modified or waived.

It is staff's opinion that the proposed disturbance of critical slopes would favorably satisfy factor (a) above because the proposed disturbance would not be of a detriment to public health, safety or welfare and the development, as proposed. Staff finds that the critical slopes proposed to be disturbed are manmade and were created during the development of the football field as depicted on SDP-402 Westside High School – Site Plan approved by the County in 1975. There are no Planning or Engineering concerns with the proposed critical slope disturbance request and resulting development. Staff opinion is that granting this special exception is appropriate.

SUMMARY: Staff has identified factors that are favorable and unfavorable to this proposal:

Factors favorable to this request include:

1. The applicant has proposed evergreen landscaping as suggested by the ARB, which will help minimize visibility from the EC/Scenic Byway.
2. Increase wireless coverage in the area allowing people to make emergency calls.

Factors unfavorable to this request include:

1. The proposal fails to meet section 5.1.40(b)(6) of the ordinance because the location and height of the monopole does not provide adequate opportunities for screening and the facility is not sufficiently sited to minimize its visibility from adjacent parcels.
2. The proposal fails to meet section 5.1.40(b)(2)(b) of the ordinance because the size of the Shentel antenna is larger than 1,400 square inches. This increases the bulk atop the tower, which increases visibility of a highly visible tower.
3. ARB does not support or recommend approval of the facility.
4. Under FCC regulations if approved the monopole would be permitted to increase in height by 20 feet and install antenna extending up to 20 feet from the monopole which would further increase the visibility of the facility.
5. The facility is inconsistent with the Comprehensive Plan.

RECOMMENDATION: Staff recommends denial of SP201700026 and the SE to Section 5.1.40(b)(2)(b) (size) based on the unfavorable factors noted above. *Staff has no objections to the approval of the special exceptions* for Sections 5.1.40(b)(2)(c) (antenna projection), and Section 4.2.5 (disturbance of critical slopes).

If the PC recommends approval of this application, staff recommends the following conditions:

CONDITIONS OF APPROVAL:

1. The development of the site, and any modifications to the arrays, shall be in general accord with the plan titled "*Milestone Communications – Shentel at Western Albemarle High School 5921 Rockfish Gap Turnpike Crozet, VA 22932*" dated 6/06/18 (hereafter "Conceptual Plan"), as determined by the Director of Planning and the Zoning Administrator. To be in general accord with the Conceptual Plan, development and use shall reflect the following major elements within the development essential to the design of the development, including but not limited to all concealment elements, concealment technique, and concealment elements of the eligible support structure, as shown and described on the Conceptual Plan and mentioned below:
 - a. Tower height (125 feet tall)
 - b. Color (equipment and monopole – Sherwin Williams – Java Brown)
 - c. Flush mounting of antenna (18 inch maximum standoff distance)
 - d. Tree preservation areas
 - e. Location of ground equipment

Minor modifications to the plan which do not conflict with the elements above may be made to ensure compliance with the Albemarle County Zoning Ordinance.

2. The facility shall comply with subsection 5.1.40(b), 5.1.40(c), 5.1.40(d), 5.1.40(e), and 5.1.40(f) – (j) of the Albemarle County Zoning Ordinance unless modified by the board of supervisors during special use permit review.
3. Prior to the issuance of a building permit a VSMP permit will be required.
4. The VSMP plan shall depict both County provided topography from the County GIS and the field run topography used for the concept plan. Each shall be labeled appropriately.
5. Prior to the issuance of a building permit the applicant shall submit revised landscape plans depicting a slightly modified location of the row of Eastern Red Cedars being planted along the frontage of the WAHS property in order to avoid interfering with the overhead lines. ARB staff shall review and approve this modification.

Motions (Two Separate):

Motion One for Special Exceptions: The Planning Commission's role is to recommend approval or denial of the Special Exceptions to section 5.1.40(b)(2)(b) (size) and section 5.1.40(b)(2)(c) (projection) and section 4.2.5 (disturbance of critical slopes) of the Zoning Ordinance.

- A. Should the Planning Commission choose to follow staff's guidance and recommend denial of the SE to sections 5.1.40(b)(2)(b) (size) and recommend approval of section 5.1.40(b)(2)(c) (projection) and approval of the SE to section 4.2.5 (disturbance of critical slopes):

I move to recommend denial of the Special Exceptions to Sections 5.1.40(b)(2)(b) (size) and recommend approval of section 5.1.40(b)(2)(c) (projection) and approval of the Special Exception to section 4.2.5 (disturbance of critical slopes) for the reasons outlined in the staff report.
(Planning Commission needs to give a reason for denial)

- B. Should the Planning Commission choose not to follow staff's guidance and recommend approval of all Special Exceptions:
I move to recommend granting the Special Exceptions to sections 5.1.40(b)(2)(b) (size) and section 5.1.40(b)(2)(c) (projection) and section 4.2.5 (disturbance of critical slopes)

Motion two for Special Use Permit: The Planning Commission's role in this case (SP201700026) is to make a recommendation to the Board of Supervisors.

- A. Should the Planning Commission choose to recommend denial of this Tier III personal wireless service facility:
I move to recommend denial of SP201700026. (Planning Commission needs to give a reason for denial)
- B. Should the Planning Commission choose to recommend approval of this Tier III personal wireless service facility:
I move to recommend approval of SP201700026 with the conditions outlined in the staff report.

ATTACHMENTS:

- A) [Aerials, Parcel and Location Maps](#)
- B) [Architectural Review Board action letter](#)
- C) [Site Plan](#)
- D) [Applicant's information packet](#)
- E) [Photos from the balloon test & photo simulations](#)
- F) [Viewshed Analysis Map](#)
- G) [Memo from Bill Fritz discussing FCC rules related to eligible support structures](#)
- H) [Citizen Communication about the Proposed Facility](#)