



December 26, 2024

Mr. Tom Egeland
County of Louisa, VA
Deputy Director of Community Development
Deputy Zoning Administrator
1 Woolfolk Avenue, Suite 201
Louisa, VA 23093

RE: Application for Louisa County Conditional Use Permit for Wireless Communications Facility (WCF)/Raw Land Project, Arcola Towers, Horseshoe Site.

Dear Tom:

On December 12, 2024 Altairis completed the initial review and provided a report with our findings and recommendations on Arcola Towers' Conditional Use Permit (CUP).application to construct a Wireless Communications Facility at 79 Charles Lane, Louisa, VA, AKA Horseshoe Site.

On December 17 GDN Sites provided a response letter which included subsequent submittals. Altairis has reviewed GDN's response and offers the following updated findings and recommendations.

Altairis Revised Findings and Recommendations:

1. Section 86-663: Altairis finds that Arcola Towers either complies or is working towards compliance with Federal and State regulations as indicated below.
 - a. NEPA/SHPO Study: Arcola Towers provided a letter from TRILEAF environmental architectural engineering stating that Trileaf was in the process of completing a NEPA Review for construction of the proposed WCF, in compliance with FCC Title 47 CFR, part 1, Subpart I in addition to Section 106 demonstrating that construction of the proposed WCF will result in no impact to the environment.

GDN Sites 12/17/2024 Response:

- *SHPO completed on 10/10/2024: GDN provided a copy of an email from the FCC (Page 4 of GDN's response) stating concurrence from the Lead SHPO/THPO (Virginia Department of Historic Resources) with a finding that the proposed WCF will have No Direct or Visual Effect on historic properties in the "Area of Potential Effects" (APE). **Comply***

- *NEPA: GDN anticipates completion of the NEPA study by Trileaf by February 7, 2025. **Non-Comply**
(Altairis recommends the County proceeds with the application, pending completion of a compliant NEPA Study)*

b. FAA: Arcola Towers provided an FAA letter of “Determination of No Hazard to Air Navigation” (Aeronautical Study No: 2024-AEA-8733-OE) dated 09/30/2024. The FAA does not require marking or lighting for the proposed structure. **Comply**

2. Section 86-664 Applicability: Altairis finds that Arcola Towers proposed WCF which includes construction of a 199-ft monopole tower complies with the relevant provisions of the County’s Telecommunications Master Plan. **Comply**
3. Section 86-665 Permitted Use Table: Altairis finds that Arcola Towers is following the Permitted Use Table for Freestanding WCFs exceeding 100-ft in height within the Agricultural (A-2) zoned district. **Comply**
4. Section 86-666: One of the required items in this section of the ordinance (described below) has not been certified by a licensed professional or qualified professional.

Paragraph (4) requires a technical data report certified by a registered professional engineer licensed in the Commonwealth of Virginia or other qualified professional, which qualifications shall be included, regarding service gaps or service expansions that are addressed by the proposed WCF

GDN’s Response 12/17/2024:

*GDN provided a copy of a letter from Verizon Wireless radio frequency engineer which justifies the need for the proposed WCF. **Comply***

5. Section 86-667: Altairis finds that Arcola Towers is in compliance with all requirements of the section. **Comply**
6. Section 86-668: **N/A**
7. Section 86-669: **N/A**
8. Section 86-670: **N/A**
9. Section 86-671: **N/A**
10. Section 86-672: **N/A**

11. Section 86-673: Arcola Towers states in paragraph (3) that a letter from Dewberry engineers was provided which certifies the breakpoint design and fall radius of the proposed structure. This letter was not included in the documents submitted to the County. **Comply**

GDN's Response 12/17/2024:

GDN provided a copy of a letter from Dewberry Engineers Inc, certifying the breakpoint design and fall radius of the proposed structure. The letter was signed and sealed by a licensed PE in the Commonwealth of Virginia.

12. Section 86-674: Arcola Towers states in paragraph (2) that a letter from Dewberry engineers was provided which certifies the breakpoint design and fall radius of the proposed structure. This letter was not included in the documents submitted to the County. **Comply**

GDN's Response 12/17/2024:

GDN provided a copy of a letter from Dewberry Engineers Inc, certifying the breakpoint design and fall radius of the proposed structure. The letter was signed and sealed by a licensed PE in the Commonwealth of Virginia.

13. Section 86-675: Altairis finds that Arcola Towers is in compliance with all requirements of the section. **Comply**

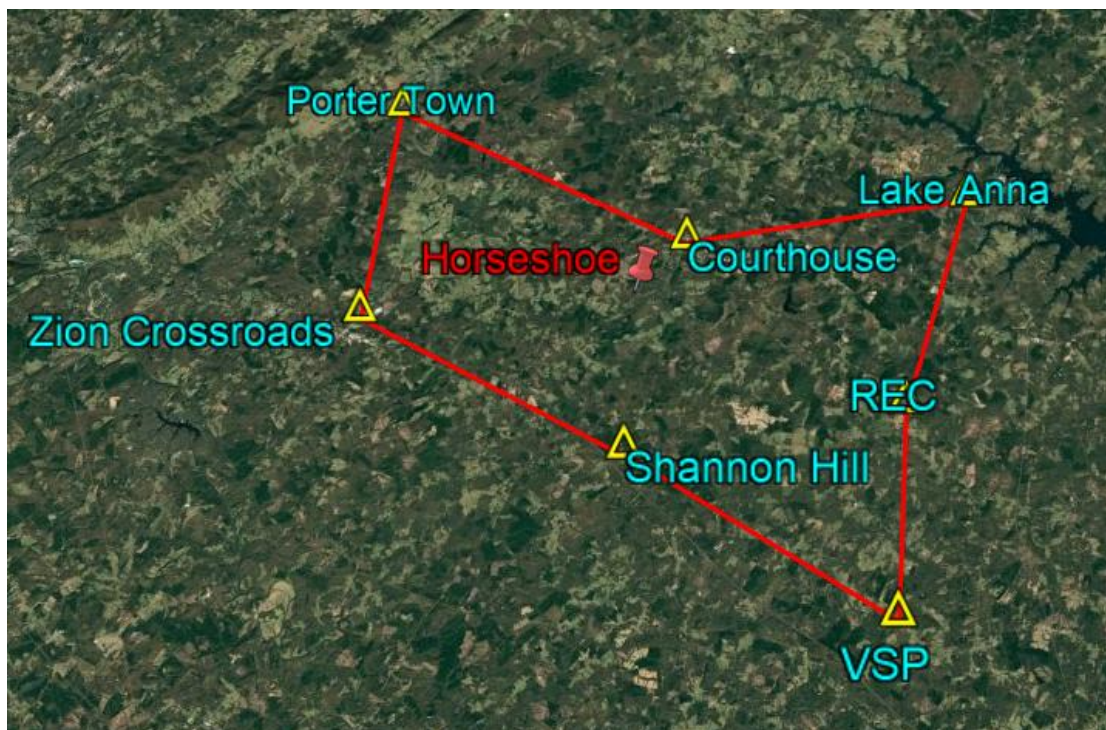
Additional Comments

1. In lieu of having a TIA-222 (Standards for Antenna Support Structures) structural report for the proposed tower, Altairis recommends that the engineer's letter (see paragraphs 11 & 12 above) include a statement which certifies that the proposed monopole tower be designed and constructed with the structural capacity to support the Verizon Wireless antenna loads (as described in Arcola Towers submittal document #3-Horseshoe Zoning Narrative) plus the addition of future carrier colocation antenna loads comparable to the Verizon antenna system design.

GDN's Response 12/17/2024: GDN provided a copy of a letter from Dewberry Engineers, Inc certifying that the proposed monopole tower will be designed and manufactured with the structural capacity to support the Verizon Wireless antenna loads (as described in Arcola Towers submittal document #3-Horseshoe Zoning Narrative) plus the addition of future carrier colocation antenna loads similar to the Verizon antenna system design

2. Altairis is coordinating with the County's Public Safety department to complete an analysis to confirm that the proposed structure will not impact the County's Public Safety Communications Systems. Altairis recommends approval of the CUP for the proposed WCF be contingent on a finding of no impact to Public Safety Communications.

Altairis received information from the County on the existing Public Safety communication tower sites and has confirmed that the proposed 197' structure will not present a physical obstruction to the County's telecommunications microwave network.



**LOUISA COUNTY PUBLIC SAFETY COMMUNICATIONS SITES
PROPOSED "HORESHOE" STRUCTURE SHOWN IN RED**

3. Elevated structures have a higher occurrence of lightning strikes. To minimize the risk to personnel safety during lightning strikes, Altairis recommends that the proposed WCF be designed and construction to include a grounding and bonding system in accordance with industry standards (i.e. NEC, NFPA-780) and building codes.

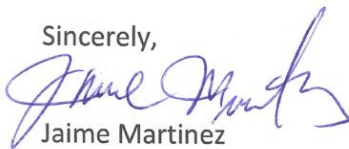
GDN's Response 12/17/2024:

GDN provided a copy of a letter from Dewberry Engineers, Inc. confirming that the proposed WCF will be effectively grounded and bonded to protect persons and property.

















Altairis has no further issues with this new WCF. Altairis is confident that the Board of Supervisors has a preponderance of the evidence of record to approve this use and/or the requested variances, pending resolution to the issues identified in this review memo. We have no other requirements or recommendations for any conditions or guaranties of approval that should be imposed by the Board.

Altairis recommends the approval of this Conditional Use Permit once the NEPA study is complete. Should you have any questions or require further information, please feel free to give me a call at (773) 255-3260.

Sincerely,

Jaime Martinez

Initial Submittals reviewed

-  1-Horseshoe Application cover
-  2-Horseshoe - Signed CUP App- 20241114
-  3-Horseshoe -Zoning Narrative - Final
-  4-Horseshoe -Deed- 20241015
-  5-Horseshoe - New Build - FZD Rev 2 - 20241014
-  6-Horseshoe - New Build - Photosims - 20241015
-  7-Balloon Test Notice Letter_Horseshoe
-  8-Horseshoe Adjoining Property Owners
-  9-Horseshoe -Affidavit for Balloon Test Notice- 20240924
-  10-Horseshoe -Notice to carriers
-  11-Horseshoe -FAA No Hazard Letter- 20241010
-  12-Horseshoe Letter of Commitment-signed
-  13-Horseshoe 1000ft property owner list
-  CLG Letter 749596

Subsequent Submittals Reviewed (all Subsequent Submittals were included in GDN's response letter).

- Response letter from GDN sites
- Copy of Email from FCC dated October 10, 2024
- Verizon letter dated December 16, 2024
- Dewberry Engineers, Inc letter dated December 16, 2024