

February 27, 2026

Supervisor Edward A. Lachterman
and Members of the Town Board
Town of Yorktown
363 Underhill Avenue
Yorktown Heights, NY 10598

SUBJECT: SUPPLEMENTAL RF ENGINEERING EVALUATION OF HOMELAND TOWERS APPLICATION TO INSTALL A WIRELESS TELECOMMUNICATIONS FACILITY AND MONOPOLE ON GRANITE SPRINGS ROAD IN YORKTOWN, NY

Supervisor Edward Lachterman and Members of the Town Board:

The purpose of this report is to provide the Town Board with a summary of my review of the additional documents received related to the Homeland Towers application to install a wireless telecommunications facility and monopole on Parcel# 27.11-1-3 on Granite Springs Road in Yorktown, NY. The documents reviewed in preparation for this report included:

- Town of Yorktown Code §300-59 (*Wireless telecommunication services facilities*)
- Snyder & Snyder Cover Letter (February 24, 2026)
- KCSJ Consulting Site Plans (February 10, 2026)
- VCOMM RF Coverage and Analysis Report (February 24, 2026)
- Pinnacle Telecom Group FCC Compliance Report (February 2, 2026)
- Supplement to Alternate Site Analysis (V. Xavier) (February 13, 2026)
- On Air Engineering Structural Letter (February 3, 2026)

This report will focus on evaluating the RF Engineering components of the new submissions with consideration of the Town Code regulations cited above and the commentary from my initial report dated January 25, 2026.

A. KSCJ Consulting Site Plans (February 10, 2026)

My previous report noted that there are no details provided in the Site Plans regarding the items below in *italics*. My evaluation of this submittal with response to these comments are shown following each item:

- *Which carrier is planned for which height? Based on the RF Justification Report (see Section C), Verizon will be the first carrier on the pole, and be located in the top position at 126 feet AGL. This should be indicated on the site plans.*

Verizon was not explicitly called out on the plans

- *What is being installed on the proposed monopole and at the base of the monopole? Details concerning antennas, cabling, transmission equipment, power, etc. must be provided on the Site Plans in order to meet §300-59E.1(n,o,p,q,r) of the Town Code.*

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Antenna details were provided for the “Proposed Lessee” at 126 ft AGL. 12 total antennas and associated Remote Radio Heads (RRH) are proposed over 4 sectors, specifically:

- 2 “Lessee Antennas” in each sector (make/model not defined)
- Samsung MT6413 combined RRH/Antenna (C-Band) in each sector
- AWS/PCS Band RRH in each sector
- 700/850 MHz RRH in each sector
- Over Voltage Protection (OVP) device in each sector

There was no information added to the site plans regarding the equipment to be installed at the base of the monopole.

These Site Plans still appear to be Zoning Drawings, not Construction Drawings. *The Applicant needs to submit Construction Drawings that provide the remaining missing details required to meet the Town Code requirements details above.*

B. VCOMM RF Coverage and Analysis Report (February 24, 2026)

In my January 25, 2026 report, I noted that I’d like to see the Applicant provide the few items below to complete their report (*italics*). I reviewed the updated report, and my commentary is included following each item:

1. *Antenna Height Clarification* – A very minor issue, but this report stated the antenna height at 127 ft AGL, while the Site Plans show 126 ft AGL. This discrepancy should be resolved.

This was corrected to 126 ft AGL in agreement with the Site Plans.

2. *Capacity Analysis* – Provide data to substantiate the capacity offload claim made on page 4 of the report.

There was a section added to the report describing the need for capacity offload (p12-13). They illustrate the need for capacity offload of the Mohansic 2 Alpha sector with Figure 7 and, since that is the sector providing the majority of coverage to the area to be covered by the proposed Granite Springs Road site, it is clear that the proposed site will offload capacity from the overloaded Mohansic 2 site.

3. *Propagation Model / Parameters* – The propagation model and parameters utilized can make a large impact on the output coverage maps. The Applicant is requested to provide a table showing, as a minimum, for each sector of each site:

- Lat/Long
- Antenna Centerline Height (ft AGL)
- Antenna Make/Model
- ERP (dBm)
- Orientation (degrees)
- Propagation Model

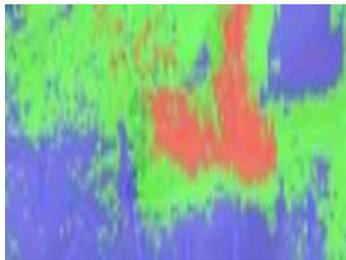
The requested information was provided in the added Site Technical Information section on pp17-20. They used ATOLL software for the propagation studies, which is an industry standard tool utilized by Verizon (I would assume that the plots were produced by Verizon, and not VCOMM).

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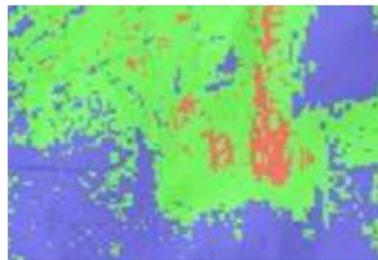
4. *Alternate height analysis* – Show projected coverage at both 137 ft and 117 ft AGL, and at both the 700 MHz and 2100 MHz bands. This will show the impact of monopole height variations and frequency bands differences and justify (or not) VCOMMs statement that the proposed monopole height is the minimum necessary to provide the required coverage in the area.

A Height Analysis section was included in the revised report in response to my request. They only evaluated lowering the tower by 20 ft, not the 10 ft requested. Comparing the 700 MHz plots and 2100 MHz plots to the proposed (130 f) monopole height, I see reduced coverage to the north and northwest, but very little difference in the other directions. The below shows the reduction in coverage to the north/northwest:

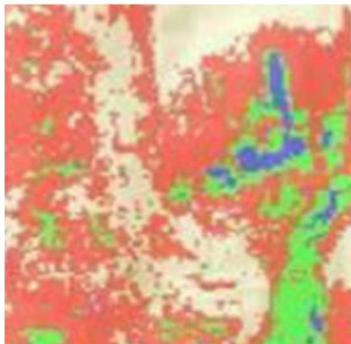
700 MHz at 110 ft



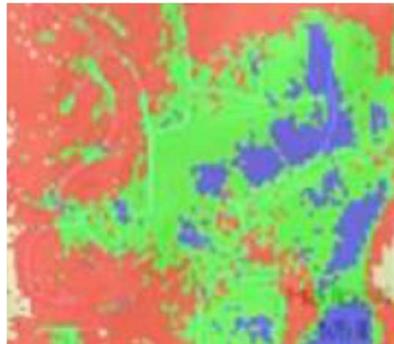
700 MHz at 130 ft



2100 MHz at 110 ft



2100 MHz at 130 ft



Note that blue is strong coverage, green is good coverage and red is marginal coverage.

My interpretation of this analysis is that a 110 foot monopole would provide acceptable coverage at the top height (106 ft AGL), it is likely that at lower heights adequate coverage would be realized, therefore limiting the monopole to likely a single carrier (in this case, Verizon). This is not a beneficial situation for Yorktown, as it would lead to additional tower requirements.

As a result, I agree that the best height for a new monopole in this area is 130 ft AGL, which will result in the best chance of all 3 wireless carriers collocating on a single tower.

VCOMM also included an analysis of the Cityscape Consultants report that was done for the County of Westchester (year?), The coverage gap highlighted by the Applicant is also highlighted in the Cityscape report. Their solution was to propose 6 “small cells” at 50 ft in height to cover this area. VCOMM continues on to describe why the Cityscape small cell approach would not work in this area. Their most valid arguments are:

- Existing poles are 35 ft, not 50 ft. This would require more “small cells” than 6.

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- Collocation will be difficult with such low poles due to antenna separation requirements and equipment location requirements for multiple wireless carriers.
- The Cityscape analysis focused on outdoor coverage, while Verizon (and the other carriers) want to provide reliable in-building coverage

Also, the Town should ask themselves “Are 6 x 50 ft poles really better than 1 x 130 ft pole” with respect to visual impact to the residents?

The bottom line is that I still believe that this is not a good application for small cells.

C. Pinnacle Telecom Group FCC Compliance Report (February 2, 2026)

I requested an updated report using heights consistent with the Site Plans provided and including the 5G bands for each wireless carrier.

Pinnacle’s updated report is now consistent with both the Site Plans and the VCOMM RF Report in terms of antennas and technologies deployed for Verizon. They added the 5G bands into the analysis, plus added 12 degrees of downtilt to the antennas, which is the maximum electrical tilt that the antennas support. The resulting analysis was that the exposure results were limited to 12.96% of the FCC General Population MPE limit. Note that although this is worse than the original results (5.3%), it is still comfortably below the MPE limitations.

D. Supplement to Alternate Site Analysis (V. Xavier) (February 13, 2026)

I reviewed Mr. Xavier’s report, and most of it has nothing to do with my area of expertise. I will limit my observations to the “small cells” portion of the report, which is consistent with the analysis provided in the VCOMM report. Mr. Xavier stressed the need for up to 18 small cells, not the 6 in the report, due to the infeasibility of collocation on these lower poles. I agree with his argument, and I believe that is not a viable solution for Verizon in this area.

E. On Air Engineering Structural Letter (February 3, 2026)

I reviewed the structural letter provided, which generally described the proposed monopole and gave assurances that it would be designed in accordance with the NYS Building Code and applicable standards, including TIA-222-I, It was signed and sealed by a NYS licensed Professional Engineer.

In my opinion, this does not meet the requirements of §300-59D.5 of the Town Code. Before granting the permit, the Town should request a detailed structural report as well as Construction Drawings.

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F. Summary and Recommendations

With the revised submittals discussed above, it appears to me that the Applicant has met the RF Engineering-related requirements to build a new 130 foot monopole on Granite Springs Road.

I would advise the Town not to issue the requested permit until the Applicant provides the required structural analysis report and Construction Drawings for the proposed monopole.

Please feel free to reach out to me with any questions or comments.

Sincerely,



Douglas Fishman
RF Engineering Consultant
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