



July 7, 2022

Chris Kehoe, AICP
Director, Department of Planning & Community Development
Town of Cortlandt
1 Heady Street
Cortlandt Manor, New York 10567

Re: Homeland Towers / Verizon Wireless
Application for Site Plan and Special Use Permit
52 Montrose Station Road – New Tower site
Review Memo #1 (Inventory and Completeness)

This memorandum was prepared to summarize HDR’s preliminary review of the application materials submitted by Snyder & Snyder LLP, on behalf of the applicants, Verizon Wireless (Verizon) and Homeland Towers, LLC (Homeland), for the above-referenced project. The proposed wireless facility includes a 140-ft monopole structure and a 930-s.f. ground-based equipment area located at the rear of the above-referenced 6-acre property (located in a R-40 zoning district). Verizon is proposing to co-locate near the top of the monopole (12 antennas; 137-ft antenna centerline height). The application in front of the Planning Board is a re-design of an initial filing dated February 20, 2019 and is based in part on Town comments that were submitted in March and April 2019 for the initial application (and in September and October 2019 after additional applicant information was provided). Additional information was submitted by the applicant in August 2021; however, at that time Verizon Wireless requested that the Planning Board place the matter on hold status.

HDR is in receipt of the application materials and Town comments, as inventoried below ([Item 1](#)), including the April 22, 2022, submittal which includes Homeland as a co-applicant with Verizon. The applicants are seeking Planning Board reviews (SEQRA, Site Plan, and Special Use Permit) for a new wireless telecommunications facility. Area variances from the ZBA, based on proposed setback distances from the existing property lines and nearest occupied dwelling to the proposed facility, may also be required. HDR understands that required permits and approvals will be confirmed by the Town.

A site visit was conducted by HDR with a representative of Homeland on June 2, 2022. The application (re-design) was discussed at the June 7, 2022, Planning Board meeting, and a conference call with applicant representatives, Town representatives, and HDR was conducted on June 13, 2022, to discuss the application, technical review needs (described below in [Item 2](#) of this memo), and the concept of a follow-on balloon test and updated visual resource evaluation.

This memo is submitted for the Planning Board’s review and discussion at its July 12, 2022, meeting. HDR has performed an inventory and preliminary review of the application items including the visual resources evaluation (viewshed maps, photosimulations) that were submitted after an “off-leaf” balloon test was conducted on May 4, 2019, for the initial proposed tower



location and design. At that time, field photos were taken (approximate 2 mile radius around the proposed site) and photosimulations were developed for the lattice tower design. As the re-design includes a modified tower location and a different tower design (monopole vs. lattice tower that was initially submitted), HDR is recommending that a second balloon test be conducted and that updated visual resource evaluation materials be provided. Feedback and guidance on that process are provided below (**Items 2.A and 2.B**). **We understand that the Planning Board will discuss / confirm the second balloon test at its July 12, 2022, meeting.** If approved, a tentative balloon test date of Saturday, July 23, 2022, has been identified by the applicant. A draft balloon test notice that can be considered for posting (i.e., in local newspaper; on Town website) is also included as an attachment to this memo.

1. **Application Inventory.**

HDR conducted a preliminary review of the following application materials for this memorandum:

- **Initial Applicant Filing.** Snyder & Snyder LLP dated February 21, 2019 (105 pp.) that includes the following:
 - Cover letter (2 pp.)
 - Planning Board Application form for a special permit (2 pp.)
 - Letter of Authorization from property owner (Bezo Enterprises, LLC); 1 page
 - Copies of application referral letters to Westchester County Planning Department and adjacent municipalities (all dated February 20, 2019). The following municipalities were noticed: Village of Buchanan, City of Peekskill, Village of Croton-on-Hudson, Village of Highland Falls, Town of Highlands, Town of New Castle, Town of Ossining, Town of Philipstown, Town of Putnam Valley, Town of Stony Point, and Town of Yorktown.
 - Statement in Support of the proposed wireless facility (February 20, 2019; 7 pp.) with the following Exhibits attached:
 - Exhibit 1 – Structural Certification Letter (Scherer Design Group, LLC dated February 8, 2019; 1 pp.), noting design criteria to be used and that the tower will be designed to accommodate up to four co-locators
 - Exhibit 2 – Antenna Site FCC RF Compliance Assessment and Report (Pinnacle Telecom Group dated December 19, 2018; 18 pp.), attesting that the cell site would be in compliance with FCC health-based criteria should it be approved and operational (Verizon only; future co-location was not considered).
 - Exhibit 3 – FCC Licenses (10 pp.)
 - Exhibit 4 – Alternative Site Analysis (2 pp.) attesting to the fact that there are no existing towers or other tall structures upon which to co-locate and no viable non-residentially zoned properties that would meet Verizon’s service needs
 - Exhibit 5 – Full SEQRA Environmental Assessment Form (dated February 19, 2019; 13 pp. with 4-page attachment indicating there are no wetlands or waterbodies at the project site, and providing correspondence from SHPO (May 2018) noting no direct or visual effects on historic properties within the Area of Potential Effects (APE)
 - Exhibit 6 – RF Report (C Squared Systems LLC dated February 20, 2019; 16 pp.).
 - Drive Test data (700 MHz and 2100 MHz), from a November 1, 2017 field study
 - Tables 1 and 2 (and map) inventorying existing and proposed Verizon cell sites in the site area



- Coverage maps (low band and high band), depicting existing Verizon coverage in the area
 - Coverage maps (low band and high band), depicting existing Verizon coverage in the area *with the proposed site at 52 Montrose Station Road*
- Site Plan Drawing set (Scherer Design Group, LLC dated February 8, 2019; 10 sheets)
- Review Memorandum to the Planning Board (Town of Cortlandt Department of Technical Services Engineering Division, dated March 11, 2019; 3 pp.), based on a review of the February 21, 2019 applicant submittal
- Comment Letter (review of application material) by Center for Municipal Solutions on behalf of the Town, dated April 19, 2019, and updated October 16, 2019; 16 pp.
- Visual Resource Assessment (Saratoga Associates, dated April 27, 2019; 45 pp.)
 - Narrative describing project description, landscape setting, viewshed analysis, scenic resources and areas of local interest in the vicinity of the proposed site, and the methodology followed during the May 4, 2019 balloon test
 - Listing of and visibility comments for 29 photo viewpoints (VPs) taken during the May 2019 balloon test
 - 2 viewshed maps (bare earth and land cover included); 2-mile and 1-mile radius. The 29 VPs are included on these maps.
 - Photolog of balloon test VPs (29)
 - Photosimulations (7) for the then-proposed lattice tower design (at the initially-proposed location on the site)
- Review Memorandum to the Planning Board from the Town Department of Technical Services Engineering Division dated September 25, 2019; 5 pp.
- Tree Survey (Bartlett Tree Experts), dated December 20, 2019; 2 pp. 127 existing trees were identified and tagged.
- Response-to-Comment filing by the applicant (dated August 18, 2021; 62 pp.):
 - Cover letter with responses-to-comments provided on prior application submittals, including re-located monopole configuration and revised design of the tower to a monopole (10 pp.)
 - RF engineer (C-Squared) supplemental report, dated August 12, 2021 (16 pp.)
 - Response-to-comment narrative
 - Updated low- and high-band Verizon coverage maps for the existing conditions (i.e., without the proposed cell site) and with the site proposed at 52 Montrose Station Road
 - Alternate height coverage maps
 - Updated EAF, dated August 7, 2021; 13 pp. with 3-page attachment
 - Structural Letter, prepared by SDG and dated August 5, 2021 (1 page)
 - Copy of FCC license (2 pp.)
 - Updated Site Plan Drawing set (SDG, dated August 5, 2021; 11 sheets) ***This Drawing set is assumed to be the latest as of the date of this memo.***



- Cover letter to the Planning Board (Snyder & Snyder LLP dated April 12, 2022; 5 pp.) with an updated Planning Board application naming Homeland Towers LLC as the Applicants (2 pp.) and an updated Proxy Statement (1 pp.)
2. **Supplemental Information Needs**. Based on a review of the above-noted application materials, supplemental information is requested. We note that the below items identified by HDR do not include comments that may be submitted by other Town consultants, the Planning Department, or outside agencies (SHPO; neighboring municipalities that have been noticed). The need for other Town permits (e.g., Grading or Tree Removal, as may be applicable) and/or variances will need to be confirmed by the Town.

A. Balloon Test

- HDR recommends that a new balloon test and updated visual resource evaluation be conducted. A balloon test was conducted in May 2019 during “off-leaf” conditions and a visual resource evaluation report was prepared (dated April 27, 2019). That report included 2 viewshed maps, 29 viewpoints (VPs), and 7 photosimulations. However, the simulations provided were for a then-proposed lattice tower design. The August 2019 visual submittals are relevant for the current design; however, as the balloon test was conducted over three years ago, and because the tower location has been shifted, a second balloon test is recommended.
- In addition to the 29 VPs examined during the first balloon test and in the 2019 visual resources evaluation report, the following VPs are suggested to be added for the follow-on balloon test based on a review of the 2019 visual resources evaluation and map resources of the area:
 - **Near VP 28 – additional photos from the Mount Florence historic district (having numerous listed buildings) – along Maple Ave. This area should be discussed in the revised visual resources evaluation.**
 - **North of VP 28 – there is a second historic district (Villa Loretto)**

It is noted that during the balloon test, additional VPs may be identified in the field. HDR will work with the applicant representatives to plan for the follow-on balloon test and keep the Planning Department informed (i.e., methods to be used to float balloons; field schedule; etc.). HDR will coordinate with the applicant and the Planning Department leading up to field work and establish a mobile phone / email chain to confirm if the balloon test is “on” or “off” based on the weather forecast. Wind / weather forecasts are not generally available more than 36 hours in advance, so a phone / email chain is important to keep all parties apprised. It is possible that Board members may want to meet the applicant’s visual assessment team in the field during the balloon test to discuss possible points of visibility and the means and methods of collecting photos and notes.

The applicant should confirm if the balloon needs to be raised in a different (off-set) location than as proposed on the current Drawings (considering clearing up through



existing tree canopy). Confirmation if a crane (vs. tether float) is proposed as part of the field test should also be provided, along with means for monitoring the balloon for the duration of the field test to (a) document times when the balloon may not have been flown to maximum height, and (b) be prepared to replace the balloon if problems are encountered. An additional, alternate color balloon may be added to the scope to allow for continued assessment of alternate tower height and potential co-location. A date of **Saturday July 23, 2022**, has tentatively been identified for the balloon test (see draft notice in Attachment A of this memo, should the Town require advertising of the balloon test in the local newspaper of record and/or on its website).

- It is noted that prior to the balloon test, the contents of the updated visual resources evaluation report should be scoped (i.e., photosimulation development, including alternate tower configurations and heights; updated viewshed maps; utilization of the NYSDEC Visual Assessment Policy and other guidance). Confirmation and mapping of hiking trails, cultural resources, historic sites, scenic roadways, and other resources that may be in the viewshed should be included in the updated report. The need for separate notices/outreach to specific parties [e.g., Westchester County] in advance of the balloon test and as a supplement to the above-described noticing should be discussed with the Planning Department. HDR will make field observations on the day of the balloon test to confirm the balloon float and set-up and areas from where the balloon is and is not visible.
- The scope, logistics, and schedule for a follow-on balloon test at 52 Montrose Station Road will be discussed further at the July 12, 2022, Planning Board meeting.

B. Visual Resources Evaluation

- With the tower location and elevation change, updated viewshed maps (modeled visibility with bare topography, and with vegetation / land cover) should be provided prior to the balloon test. All VPs (prior, and the ones noted above) should be shown on the maps.
- Photosimulations –
 - Following the balloon test, the field notes and VP photos collected will be discussed with the applicant, HDR, and the Planning Department. The number of photosimulations and VPs to use, tower configurations / designs to depict, and co-location scenarios will be scoped for the future visual resources evaluation submittal. These may include:
 - Photosimulations of the tower (top half; near field and distance views) and the ground-based equipment area (including proposed fencing and tree removal / clearing) will be requested. The photosimulations submitted with the initial tower design (August 2019) will be reviewed to streamline the supplemental photosimulation needs. 1-2 simulations will be requested using identical views from the 2019 assessment so that changes in monopole design, location, and base elevation can be better assessed from a visual impact standpoint.
 - Alternate monopole colors (e.g., conventional grey galvanized and brown) and scenarios with and without co-location will be requested.



- Although not always a viable option for many tower locations, photosimulations of a stealth tree design may be requested for this site based on its setting and modified location to a slightly lower grade.
 - Visual Resources Evaluation report –
 - The updated visual resources evaluation report should include the Blue Mountain Reservation trails, and specifically discuss the areas within the Reservation where the 140 ft monopole is and is not visible (locations and acreage) based on desktop models.
 - All field equipment and methods utilized during the balloon test (GPS to confirm tower and photo locations; confirmation of balloon float height; etc.), balloon colors and diameters, camera / lens specification, and the software and tools used to develop the viewshed maps and photosimulations for the updated evaluation should be described.
 - Photo examples from similar Homeland projects (conventional and stealth tree monopoles) should be submitted, including the ground-based equipment areas. For the stealth tree option, typical branch density, length of branch zone, and taper should be apparent in the examples provided.
 - **It is requested that updated viewshed maps (bare earth and with vegetation / land cover added) with all proposed VPs (29 initial and the additional ones noted above) be presented for discussion at the July 12, 2022 Planning Board meeting.**

C. Inventory of Project Changes

The Verizon application was first reviewed in 2019 by the Planning Board. To better understand the re-design that is now proposed vs. the initial proposal, the information in the below Table should be reviewed by the applicant representatives with clarifications and supplemental information inserted and/or provided in a separate narrative to provide a side-by-side comparison.

| Item | Initial Application | Current Homeland/Verizon Application |
|----------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Letter of Authorization | Provided | <i>Update includes Homeland Towers</i> |
| Latitude/Longitude | | Note also distance and direction of tower from initial proposal |
| Property Survey provided ? | | Property and proposed facility survey (NYS L.S.) is requested. |
| Setback distances/property lines and area variance needs | <i>Note min setbacks to all property lines and prior variance needs</i> | <i>Note min setbacks to all property lines and variance needs, from compound and access road improvements. Variance needs to be finalized with the Town after additional information is provided.</i> |
| Ground elevation, compound (ft amsl) | 435' ± (NAVD88) | 410'-6" ± (NAVD88) |
| Ground elevation, tower (ft amsl) | 445' ± (NAVD88) | 410'-6" ± (NAVD88) |



| | | |
|------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tower type proposed | Lattice | Monopole |
| Tower height (ft agl) | ±140' (±145' for lightning rod) | ±140' (±145' for lightning rod) |
| Ground-based equipment compound (size, s.f.) | | |
| SEQRA EAF submittal | Yes | Yes – <i>noted edits made to prior version</i> |
| SHPO determination | | |
| Referrals (municipalities and county) | <i>List</i> | <i>Applicant will confirm with Town if new referrals will be needed.</i> |
| Tree survey | | <i>Applicant to confirm if an updated tree survey is being provided. This will provide basis for Tree Protection and Landscaping Plan to be added to the Drawing set.</i> |
| # Trees to be removed | | |
| Existing utilities included on Drawings | | |
| Visual Impact Analysis (Balloon test) | Yes – May 4, 2019 balloon test and August 2019 visual evaluation submittals | |
| Photosimulations and viewshed maps provided | Yes | |
| Viewshed analysis – net area of visibility (acreage) | | |
| Requested Waivers (Chapter 277) | <i>List</i> | <i>List</i> |

D. RF Justification (C-Squared Report)

- RF Reports and data were submitted by C-Squared with the initial application filing (report dated February 20, 2019, including drive test data, existing and proposed cell site information, and coverage maps) and in August 2021 in response to Town comments. Based on the information provided, a gap in Verizon service has been depicted for the site area. To confirm the RF justification information, updated responses are requested as noted in the below bullets.
- The applicant and its RF Engineer should confirm that the Tables of Existing and Proposed Verizon cell sites and the low-band and high-band Verizon coverage maps submitted prior are inclusive of all current existing and approved sites in the search area. The table listing these sites within the report should be updated if necessary, and any updates to the current existing / proposed Verizon cell sites should be added to the coverage maps. If there are no updates required, the RF Engineer shall describe how the information in the 2019 and 2021 reports was confirmed to be representative of Verizon's current network conditions in the area.
- The Verizon frequencies should be confirmed and listed to reflect what is currently proposed. 5G services, if proposed, should be noted. Renewed or updated FCC licenses for all proposed Verizon operation frequencies – if different than earlier submittals - should be submitted for the file. Specification and model numbers for all



proposed Verizon antennas, RRH units, and other tower-mounted equipment should be updated from prior filings, if necessary to reflect the current proposal.

- HDR understands that the need for the tower site (and Verizon service) is predominately based on coverage, based on a review of the C-Squared report. It is requested that the applicant confirm if increased capacity / densification for Verizon's local area network is also an objective. If so, capacity charts for surrounding cell sites should be provided.
- Verizon should update the longer-range (2-3 year) communications facilities plan for the Town, if any new contemplated sites within the Town or 2 miles from the site proposed at 52 Montrose Station Road have been identified since the prior RF justification submittals. Verizon should also inform the Planning Board of its conceptual plans to roll-out 5G operations in the Town.
- It is noted here that RF justification information is under review by HDR.

E. Drawings and Specifications

- The drawing set dated 8-5-2021 should be updated to reflect Homeland as the tower owner. All relevant maintenance, recertification, and other requirements of Town Code Chapter 277 should be added as notes. Maintenance of the access drive and visual aspects of the facility based on the approved (“final”) site plan should also be added to the notes.
- Conceptually, if there is known interest in co-location at the site by other carrier(s) such as T-Mobile, AT&T, or DISH Wireless, information for those carriers can be added to the Drawings in terms of co-location height, antenna and ground-based equipment specifications, and location of ground-based equipment in the proposed fenced compound at the tower's base. At minimum, potential co-location scenarios should be added to one of the Drawing x-sections of the monopole. [Co-location interest by other carriers – if known at this time – should be noted in the responses-to-comments.]
- For reference and comparison to the proposed conventional monopole design, a stealth tree design – with Verizon and potential co-location – should be added as a new cross-section image in the Drawing set (allowing side-by-side comparison).
- The comments submitted on March 11, 2019 and September 25, 2019, from the Town Department of Technical Services should be confirmed to be incorporated into the Drawing set. It is understood that updates to the 8-5-2021 (“latest”) Drawings set will need to be made (e.g., tree survey, tree removal, tree protection plan; add soil erosion and sediment control measures; add material stockpiling / staging plan; add profile view for length of access drive – existing and proposed improvements– along with spec of gravel / bedding material proposed).
- Specification for the proposed 20 kW diesel emergency back-up generator should be added. Sound attenuation and intrinsic fuel containment / overfill protection should be included in the selected generator model.
- Lighting detail (for ground-based equipment area) should be provided in the Drawings.
- Add notes that state that maintenance of the full extent of the access drive will be conducted by the applicant over the long-term, to safely accommodate access by the



applicant, utility and fuel delivery companies, and Town officials including fire and emergency services vehicles. This includes periodic inspection and maintenance, clearing of snow, ice, or other impediments. The location of the nearest hydrant should be indicated (depiction on DWG and/or note to be added). If any additional fire suppression is included as part of the proposed cell site layout, please indicate.

- DWGs Z5 and Z6. Add background tree line and ground surface profile to the cross-section views. For all 4 cross-sections, the length of profile shown should be extended to 100 ft in both directions.

F. RF Emissions

- An RF Emissions report was provided as part of the initial filings (Pinnacle Telecom Group, dated December 19, 2018). The applicant should confirm that all proposed Verizon frequency bands are included in the RF emissions analysis. The Verizon frequencies should be confirmed and listed to reflect what is currently proposed. 5G services, if proposed, should be noted. The RF emissions report should be checked to confirm that the equipment assumptions (number and type of Verizon antennas) and analyses are based on the Verizon equipment included on the most-recent Drawings and in the RF Justification reports. Updates to the RF Emissions report, the Drawings, and/or the RF Justification reports should be made so that the information is consistent.
- It should be confirmed that high-frequency (“mmWave”) 5G services are not proposed as part of this application.
- Co-location by 3 additional wireless carriers (in addition to Verizon; speculative at this time) should also be included in the RF emissions analyses to evaluate potential co-location scenarios.

G. Structural Analysis

- Although a full structural and foundation analysis would need to be submitted and reviewed in the future as part of the Building Permit phase of the project (should the current application be approved), descriptions of geotechnical borings to assess subsurface conditions and inform the foundation design; potential construction methods (dewatering; type(s) of foundation construction options; possibility of rock blasting; grading for equipment slabs and access road improvements; material handling) should be provided at this time to supplement the February 8, 2019, structural certification letter and the information provided on the Drawings.
- An example monopole specification / vender cut sheet from a similar Homeland project - showing structural elements, typical welded sections, monopole diameter / taper, and other information - should also be provided as a reference.

After review of supplemental information provided by the applicant, HDR will work on a technical review memorandum (Tech Memo) for the Planning Board. At that time, we may have additional clarification needs and will interface with the applicant representatives to resolve. HDR will continue the technical reviews of the various aspects of the proposed wireless facility - in coordination with the Planning Department and other Planning Board consultants - including but



not limited to visual assessments, aesthetic impacts and options, site justification, site plan considerations and construction logistics, and safety and structural considerations. It is also noted that feedback from Planning Board members and other consultants may be obtained, which may influence the above-requested supplemental information.

Please do not hesitate to contact me with any questions or comments on the above. I understand that the application will be on the Planning Board agenda for the July 12, 2022, meeting and look forward to participating in discussions.

Sincerely,

Henningson, Durham & Richardson

Architecture and Engineering, P.C.

in association with HDR Engineering Inc.

A handwritten signature in black ink that reads "Michael P. Musso, P.E.".

Michael P. Musso, P.E.

Senior Project Manager



ATTACHMENT A – Draft Balloon Test Notice

PLEASE TAKE NOTICE that Homeland Towers, LLC ("Homeland Towers") will perform a balloon test at 52 Montrose Station Road, Cortlandt, New York (the "Site"), in connection with its proposal to locate a wireless communications facility (the "Facility") at the Site.

The Facility is proposed to include a 140-foot monopole, with panel antennas thereon, together with related equipment located within a secure fenced area at the base thereof.

The field test will be conducted on Saturday, July 23, 2022 at the Site, or in case of inclement or windy weather on that day, on Sunday, July 24, 2022. If conditions on the first weather day of July 24 are not amenable, the field test will be scheduled for each consecutive day thereafter (e.g., Monday July 25, Tuesday July 26, etc.) until the balloon test is completed. The balloon shall be flown for at least four consecutive hours sometime between 7:00 a.m. and 4:00 p.m. weather permitting.

The purpose of the balloon test is to establish the approximate location and height of the Facility so that computer generated visual renderings can be prepared from various viewpoints. The balloon test will consist of an approximately three-foot diameter brightly colored balloon being floated on a tether line to a maximum height of 140 feet above ground level. A second alternate color balloon may be floated at a lower height for evaluation purposes. Please contact Homeland Towers' attorney, Michael Sheridan, at 914-333-0700 if you should have any questions in advance of the balloon test.