



September 6, 2022

File: 10346674

Chairman Vranka and Members of the Planning Board
Village of Bronxville
200 Pondfield Road
Bronxville, New York 10708

Re: Verizon Wireless Permit Application – Proposed Facility Upgrade
and 5-year Recertification
55 Palmer Avenue (New York-Presbyterian Lawrence Hospital)
Bronxville, New York 10708
Technical Review Memorandum

Dear Planning Board,

This memorandum was prepared to summarize HDR's technical review of an application prepared by Snyder & Snyder LLP, an agent of New York SMSA Limited Partnership d/b/a Verizon Wireless, to upgrade the existing wireless telecommunication facility located at the above-referenced location (the site) in the Village of Bronxville, New York. The proposed Verizon upgrade involves installation and replacement of antennas on existing mounts (3 antenna sectors), and other equipment currently located on the rooftop of New York-Presbyterian Lawrence Hospital. The applicant is also seeking a 5-year recertification for the rooftop facility's special use permit.

The proposed upgrades include the replacement of nine existing Verizon antennas, installation of three new antennas, and replacement of six remote radio head (RRH) units and associated appurtenances. All proposed equipment will be situated at the same or similar positions as the existing Verizon equipment, including the equipment cabinets which are located on an existing Verizon platform with canopy behind concealment.

This review includes a general assessment of Verizon's upgrade application (focusing on issues related to facility operation, conformance with electromagnetic radiation hazard criteria, and other aspects) by HDR. The technical review is based on an analysis of the application materials dated May 3, 2022. This memorandum is written for the review and comment of the Village of Bronxville Planning Board and Building Department. HDR understands that site plan and special use permit approvals may be required by the Planning Board for the proposed action. A building permit will also be required for the modifications. Village approval is also being requested for a 5-year recertification of the facility's special use permit.

Application Review

Verizon currently operates an approved wireless telecommunications facility at this site, which includes nine panel antennas (three per sector [Alpha, Beta, Gamma]), with centerline heights between approximately 75-ft above ground level (agl) and 89-ft agl depending on the sector and

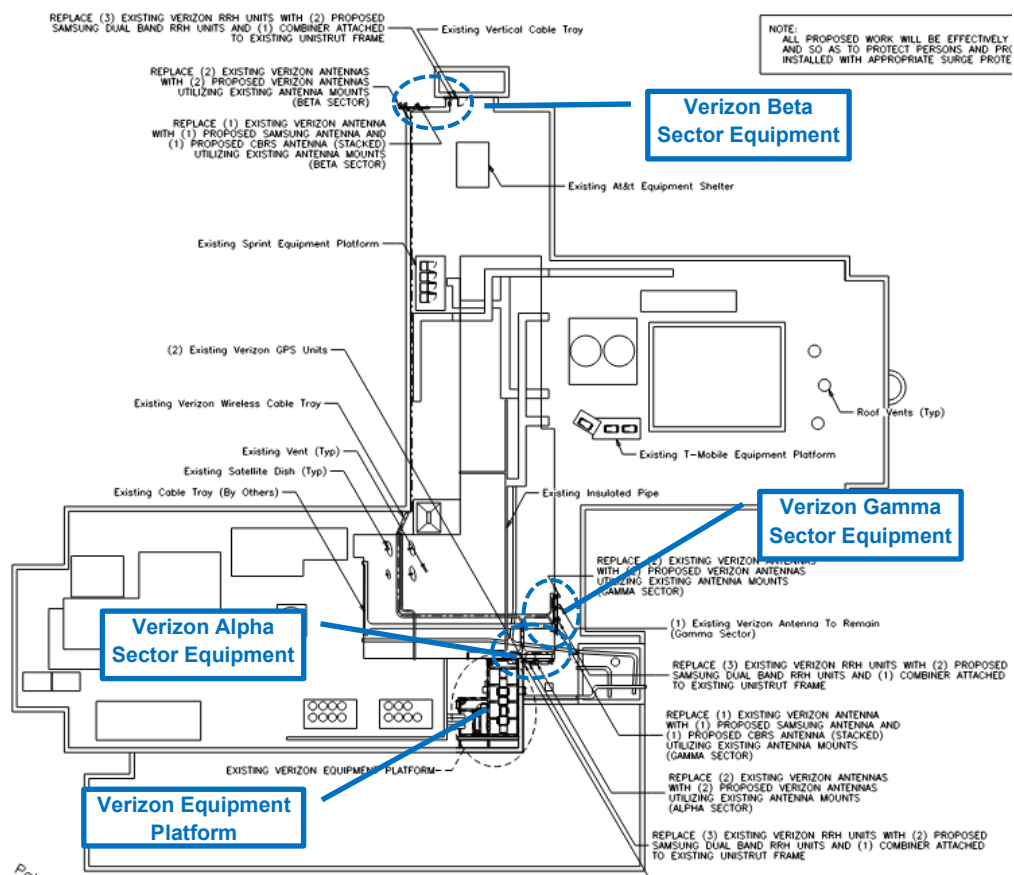


antenna, nine RRH units, cable trays, two GPS units, and an equipment platform. The site is within Zoning District “B-A” (Central Business A, non-residential).

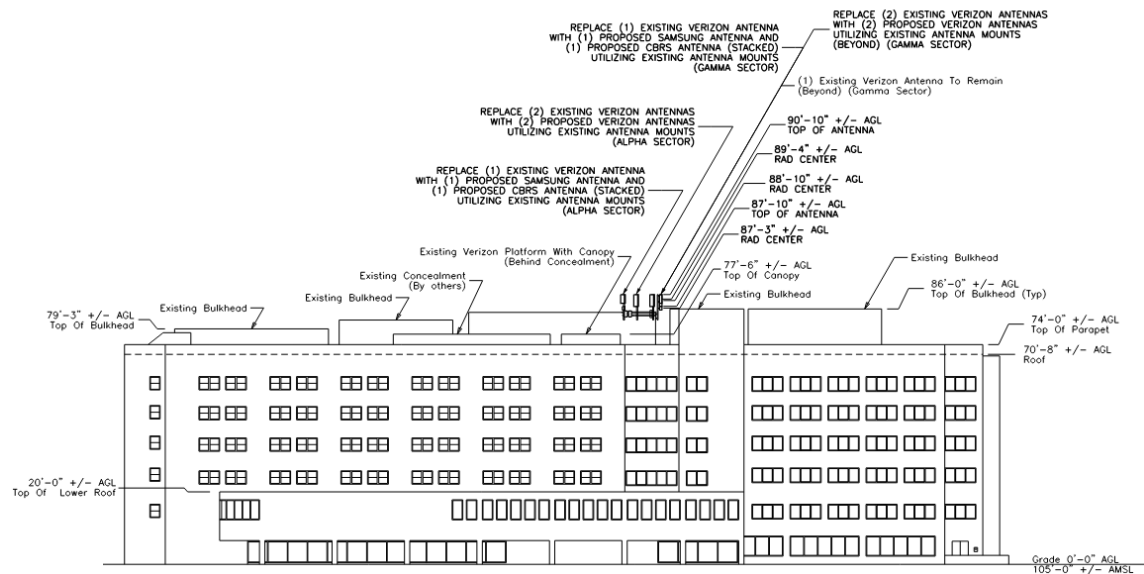
Verizon is proposing modifications to its existing wireless telecommunications facility to upgrade equipment with newer models. The antenna upgrade is being proposed to accommodate operations on Verizon’s FCC licensed frequencies in the 700, 850, 1900, 2100, and 3500/3700 MHz frequency bands to provide enhanced voice and data exchange services. High-frequency (“mmWave”) 5G services are not being proposed as part of this application.

The overall number of Verizon panel antennas will increase by three (one per sector; however, two new smaller antennas will stack vertically and share a single mount), and the maximum antenna heights will not change from existing. The dedicated equipment cabinet on the roof will not be altered as part of the proposed upgrade.

The RRH units proposed will sit in the same locations as existing RRH units with combiners attached to existing Unistrut frames.



Plan View Drawing Z2: Verizon panel and RRH unit placements and replacements (west is towards top of the below image)



X-Section View Drawing Z3: Elevation of building

Note – the beta sector (west-facing at rear of hospital building) is not depicted in the image below.

Radio Frequency Electromagnetic Modeling

In order to comply with the Non-Ionizing Electromagnetic Radiation (NIER) hazard criteria, EBI Consulting (EBI) (on behalf of the applicant) calculated RF levels for the proposed Verizon upgrade. The EBI report dated November 3, 2021 was included with the May 3, 2022 application filing. Modeling was conducted by EBI to simulate RF levels that can be expected in the site vicinity assuming the proposed Verizon upgrade is constructed and operational. The analysis does not include contributions from the other existing wireless carriers at the Site (AT&T, Sprint, T-Mobile), or existing hospital antennas.

At ground level, the maximum Verizon RF level was calculated to be 0.45% of the FCC's general public Maximum Permissible Exposure (MPE) limit, which is compliant with the FCC criteria and consistent with prior wireless application submittals for this site. At the penthouse and upper rooftop levels near the proposed Verizon wireless antennas, the RF level from Verizon equipment may exceed both the FCC's general population and occupational limits. Thus, workers accessing the rooftop who are not trained in radio frequency should be informed about the presence and locations of antennas and their associated fields. The EBI report recommends installation of yellow caution signs, blue notification signs, and green information signs to alert persons accessing the rooftop to the Verizon equipment. Signage should be confirmed to exist and maintained to follow the EBI report recommendations. See also Recommendations at the end of this Tech Memo.

Aesthetics

Based on a review of the upgrade application materials, the additional and replacement panel antennas and RRH units associated with Verizon's upgrade will be installed in the immediate



vicinities of the existing Verizon antennas. The proposed Verizon upgrade will thus not significantly modify the building's appearance, per FCC Eligible Facility Request (EFR) criteria. The proposed equipment is not anticipated to present an incremental visual impact as compared with the existing facility's conditions.

No modifications to the site's parking area, fencing, lighting, or landscaping are proposed. No new lighting is proposed or required.

Site Visit

HDR conducted a site visit of the Lawrence hospital site on August 25, 2022. During the site visit, HDR was unable to access the rooftop where the wireless facility is located; however, photos were collected from several ground-based viewpoints around the hospital (some of which are included in Attachment A).

As part of this application assessment, HDR also reviewed prior technical memoranda completed for this rooftop location (including the prior [2015] Verizon request for modifications and 5-year recertification).

Structural

A structural certification letter by Scherer Design Group, LLC ("SDG", NYS P.E.) dated August 12, 2021 was provided by the applicant. SDG performed a visual structural assessment of the existing Verizon facility and the proposed antenna work, including the removal and replacement of antennas at the existing locations. The certification letter concludes that the building and the existing mounts can accommodate the proposed upgrade based on empirical design methodology.

It is understood that the Applicant and its engineer(s) maintain full responsibility for the accuracy and adequacy of all aspects of the proposed upgrade design and construction.

5-Year Recertification Review

In conjunction with the proposed upgrade, Verizon is also requesting a recertification of its special use permit for another five (5) year period. In a memorandum from the Village of Bronxville Building Inspector dated May 10, 2022, it was noted that a prior application circa January 2022 was submitted and deemed incomplete. The memorandum requested that the deficiencies identified in January be addressed, which included requests to submit a completed recertification application form to rectify past-due recertification and to submit clarifications of existing and proposed conditions. The memorandum also clarified that the upgrade application needed to be referred to the Planning Board. It is also noted in the memorandum that the prior 5-year recertification for this Verizon cell site was approved at the March 11, 2015 Planning Board meeting.



To HDR's knowledge, the information requested by the Building Inspector has not been supplied as of this Tech Memo; however, many of the required components for recertification are inherently provided within the materials submitted for the proposed Verizon upgrade. Attachment B of this Tech Memo includes a comparative review of the Village's recertification checklist against the submitted materials. With the materials provided and reviewed, it is HDR's opinion that a new 5-year recertification can be considered (refer to Recommendations at the end of this Tech Memo for more information).

Conclusions and Recommendations

Upon review of the submitted materials, the Verizon application for upgrade and 5-year recertification appears to be comprehensive. The following recommendations were identified based on HDR's technical review and can be considered as conditions of approvals by the Planning Board and/or Building Department.

PROPOSED VERIZON UPGRADE

- The proposed Verizon panel antennas, RRH units, mounting structures, cables, and other equipment shall be color-matched to the existing panels and rooftop parapet. A matte finish is recommended. All Verizon antennas (3 sectors) are visible from some general public views. It is noted that much of the rooftop's wireless equipment (Verizon equipment platform; other carrier antennas) is screened from public views by existing bulkheads and concealment screens.
- The facility rooftop access hatch and FCC warning signage should be routinely inspected and maintained in accordance with all FCC rules, regulations, and guidance.
- Protocols should be established/maintained for rooftop access for persons not trained in RF emissions (such as maintenance workers that may need to work in proximity of the antennas in the future). It is understood that work of such nature will be coordinated between Verizon / other carriers and New York-Presbyterian Lawrence Hospital.
- Appropriate grounding and local code compliance should be established during the installation of the Verizon equipment and connections with existing electric and telephone utilities. It is understood that on-site connections will be utilized. Documentation of final construction (including but not limited to utility connections, "as-built" locations / heights / dimensions of antennas, antenna mounts) shall be provided to the Village Building Department.
- Operations should be maintained in accordance with the Village's Wireless Ordinance and all other relevant Village codes and state / federal requirements. Any proposed modification in Verizon's number or model of antennas, antenna sizes, operating frequencies (e.g., addition of high frequency ["mmWave"] 5G services), or number/sizes of other equipment from the "final" configurations as noted on Drawings Z2 and Z3 (dated 8-12-2021) shall be approved by the Village prior to any modifications.
- All applicable Village code and other state/federal requirements relating to operations, periodic compliance reporting, certifications, permit renewals, and other items shall be adhered to by the applicant for the life of the facility.



- The Village Building Department should review the application fees, escrow, insurance, and workers' compensation submittals to verify they are adequate.

It is understood that the Applicant maintains full responsibility (a) for the accuracy and adequacy of all aspects of the upgrade design and analyses provided to the Village, (b) for the construction and maintenance/operation of the proposed facility upgrade, and (c) for compliance with all applicable local (including Code Chapter 310-42), State, and Federal (FCC) rules and regulations.

PROPOSED VERIZON 5-YEAR RECERTIFICATION

The Village of Bronxville provides a form used to apply for wireless communication facility recertifications ("renewals"). This form includes special permit conditions and insurance requirements that must be met in order for a 5-year recertification to be granted. Excerpts from the Village's wireless code are included in the form itself and a submission checklist sheet is provided with the form. Application materials received were reviewed against the checklist and HDR's comments on responsiveness are provided as Attachment B of this Tech Memo. Code items preceding the checklist are discussed below.

§310-42.A(5)(j) – Annual NIER Certification

The applicant has provided an RF-Emissions report dated November 3, 2021. The applicant may be required to submit a new annual certification later in 2022.

§310-42.A(5)(l) – Default and/or revocation

No action is required by the applicant for this item.

§310-42.A(5)(m) – Removal

No action is required by the applicant or Planning Board for this item at this time.

§310-42.A(5)(n) – Compliance

This item requires the special permit holder to obtain and maintain all required permits and licenses. ***Based on our review of the submitted materials, the applicant appears to meet this requirement provided that it has submitted (or will submit) the special permit renewal form for the Village's files.*** If this form has not been submitted to-date, HDR recommends that it can be furnished as a condition of approval.

§310-42.A(5)(o) – Application Fee

Refer to checklist item 6 in Attachment B of this Tech Memo. The Village should confirm that the appropriate renewal application fee for has been paid as required.

§310-42.A(5)(p) – Retention of Experts



Refer to checklist item 7 in Attachment A of this Tech Memo. The Village should confirm that the appropriate escrow fee has been paid as required.

§310-42.A(5)(q) – Equipment Removal Bond

The Village should confirm that the bond is in place and adequate.

§310-42.A(5)(r) – Insurance

The Village should confirm that the applicant's insurance is compliant with its requirements.

§310-42.A(5)(s) – Indemnification

The Village should confirm whether indemnification is required in this instance. The existing facility is not on Village owned property.

As noted above, Attachment B of this Tech Memo provides a review of the Village's recertification checklist, with notes provided by HDR in red text. Upon review of the submitted materials, the information provided with the Verizon application appears to be generally in accordance with the Village's recertification protocols.

Please feel free to contact us should you have any questions on this report.

Sincerely,

Henningson, Durham & Richardson
Architecture & Engineering, P.C.
In Association with HDR Engineering, Inc.

A handwritten signature in black ink that reads "Colin J. Mills".

Colin Mills
Project Scientist

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

Michael P. Musso, P.E.
Senior Project Engineer

cc: Michael Sheridan, Esq. (Snyder & Snyder)



**ATTACHMENT A
HDR SITE VISIT PHOTOGRAPHS**



Existing Verizon Alpha Sector Antenna Array from Pondfield Traffic Cir.(8-25-2022)

Note – Gamma sector is around the corner and not visible.



**Existing Verizon Beta Sector Antenna Array (west side of hospital building) from Palmer Ave.
(8-25-2022)**



ATTACHMENT B SUBMISSION CHECKLIST REVIEW

The following is an excerpt of the checklist included in the Village of Bronxville's Application for Wireless Communication Facility Renewal form (applicable for the Verizon request to renew its 5-year special use permit recertification). A brief narrative providing HDR's assessment of the completeness of Verizon's application filings follows each required item. HDR's comments are provided in red font.

1. Completed signed application form:

HDR Comment: A completed *Application for Wireless Communication Facility Renewal* should be provided by the applicant for the Village files, if it has not been provided already. HDR notes that a completed Site Development Application has been provided, and that submittals required for the recertification have generally been provided.

2. Site plan sketch showing all antenna and equipment locations:

HDR Comment: Provided as the Construction Drawings associated with the proposed upgrade application.

3. Signed indemnification agreement

HDR Comment: the existing wireless telecommunications facility is not located on lands currently owned by the Village of Bronxville. A copy of the lease agreement with the property owner was provided by the applicant.

4. Current equipment removal bond

HDR Comment: Not provided by applicant. The Village should confirm that the bond is in place and adequate.

5. Insurance certificate with Village of Bronxville listed as certificate holder and additional insured

HDR Comment: Not provided by applicant but is typically provided to the Building Department as a condition of approval (and prior to upgrade construction).

6. Filing fee of \$250:

HDR Comment: It is unclear whether the applicant provided the required fee as it relates to the *Application for Wireless Communication Facility Renewal*. HDR notes that the applicant has stated in their cover letter that checks for \$350 (application fee) and \$5,000 (escrow for Site Development Plan review) were submitted. Copies of two checks were provided by the applicant; however, the checks are for \$500 and \$5,000. HDR assumes that the escrow deposit was received by the Village. The Village should confirm that the appropriate funds for a) escrow, b) Site Development Application fee, and c) Special Permit Renewal fee have been received.



7. Escrow deposit of \$5,000 for expert fees, unused balance to be refunded upon final action by the Planning Board (see § 310-42.A(5)(p) Retention of Experts):

HDR Comment: Submittal of an escrow deposit is documented in the May 3, 2022 Snyder & Snyder cover letter and an escrow application form was provided in the supplemental application package. HDR assumes that the escrow deposit has been received by the Village.

8. Copy of signed lease agreement (Note: If the applicant is not the owner of the property on which the wireless telecommunications facility is proposed to be located, a copy of the signed lease agreement or other agreement pursuant to which the applicant is entitled to utilize such property for such facility, which may have proprietary business terms redacted):

HDR Comment: Provided as Exhibit 2 of the applicant's filings.

9. Antenna information including the number, location, size and height of all existing antenna(s) and all appurtenant structures, indicate make, model and manufacturer of the antenna(s). Submit current photograph of all existing antenna arrays:

HDR Comment: Proposed antenna specification sheets are provided for in the applicant's filings, specifically the RF affidavit. Antenna and other equipment positioning information is provided as Exhibit 7 (2021 Construction Drawings). Photographs were not provided by the applicant for this application but were provided for the 2015 upgrade / recertification. HDR photos (ground level) were collect in August 2022, a subset of which is included in Attachment A of this Tech Memo.

10. Certification bearing the original signature and seal of a professional engineer licensed in the State of New York that the NIER levels at the proposed site are within the threshold levels adopted by the FCC.

HDR Comment: The applicant provided a Radio Frequency – Electromagnetic Energy (RF-EME) Jurisdictional Report dated November 3, 2021 as discussed in this Tech Memo.

11. Certification bearing the original signature and seal of a professional engineer licensed in the State of New York that the proposed antenna(s) will not cause interference with existing communication devices:

HDR Comment: A separate non-interference certification has not been provided with this renewal application. However, based on previously reviewed and current operations of Verizon and other carriers over the past several years, and considering that "interference" is an FCC-exempted item, HDR submits that the interference certification is not needed.

12. Certification bearing the original signature and seal of a professional engineer licensed in the State of New York that the wireless telecommunications facility, foundation and attachments are in accordance with original design and have been installed and



maintained as required to sustain all anticipated design loads and meet all local, Village, state, and federal structural requirements for loads, including wind and ice loads:

HDR Comment: A Structural Analysis report was not submitted with the application; however, the applicant's engineer (SDG, a NYS P.E.) conducted a design site visit and prepared a structural certification letter, which was provided in the application filings and concludes that the existing mounts and building are sufficient.

13. Certification bearing the original signature and seal of a professional engineer licensed in the State of New York that the wireless telecommunications facility is effectively grounded and bonded so as to protect persons and property and installed with appropriate surge protectors.

HDR Comment: A statement certifying that the facility is *currently* effectively grounded and bonded was not supplied in the application materials. However, such statement was included in the 2015 application, and Drawing Z2 of the current application provides the following note:

All proposed work will be effectively grounded and so as to protect persons and property and installed with appropriate surge protectors

This appears to be sufficient for this item. In the event that the applicant postpones or otherwise does not construct the proposed upgrade, if approved, in a timely manner (e.g., 3 months), then the applicant should submit the required documentation for the existing equipment.

14. Copy of the FCC license applicable for the intended use of the wireless telecommunications facility:

HDR Comment: Provided in Exhibit 5.