JOHN H. ALLGAIR, PE, PP, LS (1983-2001)
DAVID J. SAMUEL, PE, PP, CME
JOHN J. STEFANI, PE, LS, PP, CME
JAY B. CORNELL, PE, PP, CME
MICHAEL J. McCLELLAND, PE, PP, CME
GREGORY R. VALESI, PE, PP, CME

TIM W. GILLEN, PE, PP, CME (1991-2019)
BRUCE M. KOCH, PE, PP, CME
LOUIS J. PLOSKONKA, PE, CME
TREVOR J. TAYLOR, PE, PP, CME
BEHRAM TURAN, PE, LSPP
LAURA J. NEUMANN. PE. PP

DOUGLAS ROHMEYER, PE, CFM, CME

ROBERT J. RUSSO, PE, PP, CME JOHN J. HESS, PE, PP, CME



MEMO TO:

Township of Franklin

Zoning Board of Adjustment

FROM:

Robert J. Russo, PE, PP, CME

Township Engineer

DATE:

March 3, 2020

RE:

NYSMSA Ltd. Partnership d/b/a Verizon Wireless

Trap Rock Industries, LLC Preliminary and Final Site Plan

Report #1
Engineering
Block 1.01, Lot 4
122 Laurel Avenue
Franklin, New Jersey

Our File: PFRZ0001.01/600.01 Application # ZBA-19-00036

As per your request, this office has reviewed the following documents relative to the above referenced preliminary and final site plan application:

- Site Plan, prepared by E2PM Project Management, LLC, dated June 20, 2019, with a latest revision date of January 10, 2020;
- Boundary and Partial Topographic Survey, for Block 1.01, Lot 4, as prepared by E2PM Project Management, LLC, dated February 14, 2019, with no revisions;
- RF Emission Study, as prepared by V-COMM, LLC, dated September 10, 2019, with no revisions;
- RF Analysis and Report, as prepared by V-COMM, LLC, dated September 10, 2019, with no revisions;
- Photographic Simulations, as prepared for Verizon dated November 8, 2019;
- Structural Evaluation Letter, as prepared by E2PM Project Management, LLC, dated October 3, 2019, with no revisions;
- Environmental Assessment, as prepared by E2PM Project Management, LLC, dated December 2019, with no revisions;
- Application Forms.

The following comments are offered with regard to same:

A. PROJECT OVERVIEW

The subject cell tower site is located at 122 Laurel Avenue. The subject property currently contains a 1-½ story dwelling, a 1 story block/ frame dwelling, dirt/gravel drive, two transcontinental gas mains and wooded in the undeveloped portions of the property and consists of approximately 10.13 acres to the road centerline/brook centerline. The site is located within the Canal Preservation (CP) of Franklin Township.



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The applicant proposes to construct the following improvements within the 75'x 75' fenced gravel area on the subject site:

- Electric cabinets located on a 4' x 12'-9" equipment platform, cable bridge that will connect to the monopine.
- Proposed meter bank, mesa cabinet and transformer.
- Installation of a 30kw diesel fuel generator including a triple walled daytank on a concrete pad within the enclosed gravel area.
- Installation of a total of twelve (12) antennas, six (6) RRH's and one (1) OVP on a 128' monopine (120' monopine with 8' vertical concealment branches at the highest point). The antennas are proposed in three (3) clusters of four (4) antennas and two (2) RRH's along different faces of the monopine with the OVP installed behind the proposed antennas.

We defer the review of the zoning related issues to the Board Planner except where they may pertain to engineering issues.

The following comments are offered with regard to same:

General Comments:

- 1. In accordance with section *§112-59B*, the Applicant shall provide either mapping and/or an analysis to satisfy subsections (a)-(f).
- 2. In accordance with section §112-58C(1), excepting for any access driveway into the property, any required landscaping and any underground utility lines reviewed and approved by the Board as part of the site plan submission, a tower shall be set back from all lot lines and a distance equal to at least twice the height of the tower. The applicant does not meet this requirement and therefore a variance will be required.
- 3. In accordance with section §112-F, a letter of intent by the applicant, in a form which is reviewed and approved by the Board Attorney, indicating that the applicant shall share the use of any tower with other approved wireless communication services at reasonable rates which shall be economically viable.
- 4. In accordance with section §112-59G, the Applicant shall (and the landowner in the instance of a leased property) provide a performance bond and/or assurances satisfactory to the Board, in a form approved by the Township Attorney, that will provide for the removal of the antennas, any supporting tower, the electrical equipment cabinets, any building enclosing the electronic equipment cabinets and all other related improvements, at no cost to the Township, when the antennas are no longer operative. Any wireless communication antenna facility not used for its intended and approved purpose for a period of six (6) months shall be considered no longer operative and shall be removed by the responsible party within 60 days thereof.
- 5. If the Board acts favorably on this application, the Applicant shall post the required performance guarantees and engineer/inspection fees.



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- 6. Copies of any easements, exceptions, deviations, or liens on the property should be presented to the Board.
- 7. The applicant should provide testimony to the Board regarding the noise levels the proposed generator will produce. Compliance with Ordinance §167 Attachment 1, Table I and/or Attachment 2 Table II should be demonstrated.
- 8. The applicant should provide testimony to the Board regarding how often the generator will be exercised and the scheduling of same. Compliance with Ordinance §167.6.B.5 Noise should be demonstrated.

Site Plan Comments:

- 1. Applicant shall provide a tree removal and replacement schedule in compliance with Ordinance §222-Trees. Applicant shall confirm proposed species are listed within the Franklin Township approved plants list. The applicant should clearly identify the existing trees to be removed, as part of the proposed site work.
- 2. Applicant proposes approximately 0.24 acres of disturbance and approximately 0.19 acres of impervious coverage. Therefore, "Minor" Development stormwater management requirements shall be met in accordance with Ordinance §330-5. The applicant is proposing a drywell system and drainage trench to manage the stormwater requirements.
- 3. The Drywell Detail should be revised to indicate the stone utilized will be 2½" clean stone. In addition, the infiltration measure shall be designed with an overflow to the surface.
- 4. A Letter of Interpretation for the freshwater wetlands shown should be obtained from NJDEP to verify the limits of wetlands shown on the site plan. The Applicant's engineer should provide the original letter of interpretation, and the approved wetlands map, to verify the wetlands and buffers shown on the plans.
- 5. This office defers to the Fire Prevention Office as to the need for a knox box for the proposed cattle gate.
- 6. The Compound Gravel Surface detail should be revised so that the 8" x 8" timber staked curb is flush between the gravel surface and existing grade so the existing drainage path is not impeded. In addition, 3/4" clean stone should be utilized in lieu of No. 2 or 3 crushed stone.
- 7. A Conservation/Preservation Area shall be created in accordance with Ordinance §112-147 of the Franklin Township Land Development Regulations. The Township preservation area boundary line shall be established using the most restrictive of the Flood Hazard Area, Stream Preservation Corridor and Wetlands Buffer (post transition area reduction and compensation) lines. A map shall be supplied delineating the limits of the Conservation/Preservation Area with bearings and distances and proposed Preservation Area Marker locations.
- 8. Provide a Conservation/Preservation Area Easement Deed, with a metes and bounds description, of the Township preservation area boundary line created by satisfying Comment #7. The deed shall be submitted for review and approval prior to filing with the Somerset County Clerk's Office.



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- 9. The project site is located within the review zone of the Delaware and Raritan Canal Commission and the Applicant should obtain approval from the Commission. A copy of the permit should be provided to this office prior to construction.
- 10. The proposed improvements will be over 5,000 square feet and a Soil Erosion Plan has been prepared. The Soil Erosion and Sediment Control Plans are subject to review and approval by the Somerset Union Soil Conservation District.

Structural Comments:

1. In accordance with section §112-59E, the Applicant shall provide all structural calculations to substantiate the structural integrity to support the proposed antennas. The applicant's engineer submitted a structural evaluation letter; however, a structural design report shall be required.

Miscellaneous Comments:

- 1. Add the following details based on Franklin Township standard details:
 - a. Preservation Area Marker.

The Applicant is required to obtain either approvals or letter of no interest from the following agencies:

Outside Agencies:

- Delaware Raritan Canal Commission
- Somerset County Planning Board
- Somerset-Union Soil Conservation District
- New Jersey Department of Environmental Protection

Township Departments:

- Franklin Township Fire Department
- Franklin Township Police Department
- Franklin Township Sewerage Authority
- Somerset County Health Department
- Franklin Township Sewerage Authority

The Engineering Department reserves the right to make additional comments based upon the submission of revised plans or testimony presented to the Board.

Should you have any questions regarding this matter, please do not hesitate to contact this office.

RJR/DM Enclosure

cc: Zoning Board Secretary