

July 14, 2022

Mr. Bruce Flower, Chairman (Via email)
Town of Wappinger
Planning Board
20 Middlebush Road
Wappingers Falls, NY 12590

Re: JP Morgan Chase Roof Top Solar Amended Site Plan
Parcel # 6157-02-650897
CPL # 14926.04
TOW # 22-3459

Dear Chairman Flower and Planning Board Members:

This office received copies of the following documents:

- Application for Amended Site Plan Approval, dated May 18, 2022, prepared by Eric Unterreiner of Unterreiner Properties LLC
- Owner Consent Form, dated June 27, 2022, prepared by Eric Unterreiner of Unterreiner Properties LLC
- Letter of Authorization, dated May 18, 2022, prepared by Eric Unterreiner of Unterreiner Properties LLC
- Short Environmental Assessment Form, dated April 20, 2022, prepared by Breanne Mocaby of Black and Veatch
- 9-Page Project Narrative, dated June 23, 2022, prepared by Breanne Mocaby of Black and Veatch

Based on our review we offer the following engineering related comments:

1. The Owner Consent Form states the Zoning District is Conservation Commercial whereas the Site Plan Application states that the project is within the Highway Business district. Please correct.
2. Include list of adjacent property owners on the title sheet.
3. Please revise the title sheet of the plan set to accurately reflect the project parcel number.
4. Please include to-scale drawings for review. The submitted drawings were not to scale.
5. It appears that some drawings listed on the title sheet of the plan set and/or are referenced in the submitted plans are missing (i.e. E20, E21, E30, SG10 through 21, etc)
6. Provide interconnection agreement from Central Hudson when received.
7. Provide the string configuration for the solar array, with the number of modules in series and strings in parallel (if applicable).
8. Provide construction details and/or product data sheets for the following items: conduit, raceways, junction boxes, conductors, cable assemblies, fittings, etc.
9. Provide installer's solar qualifications.
10. Prior to final approval, a structural analysis of the roof prepared and stamped by a NYS-licensed Professional Engineer or Registered Architect is required. This structural analysis should address the following items, as per the New York State Solar Guidebook:



- a) Weight of the existing roofing (composition shingle, metal, masonry, etc.).
- b) Number of layers of roof covering.
- c) Method of waterproofing penetrations (flashing is required by the 2020 NYS Uniform Code).
- d) Type of racking system (engineered product) and height of solar PV modules from surface of roof.
- e) Location-specific wind load and snow load.
- f) Type, dimensions, and spacing of roof structural framing.
- g) Calculations must be provided if any of the following apply:
 - i. Roofing is not lightweight, or roof has multiple layers of covering.
 - ii. Racking system is not engineered for mounting of solar PV modules.
 - iii. Modules will be mounted more than 18 inches above roof surface.
 - iv. Modifications must be made to framing to strengthen roof structure.
 - v. Solar electric system and racking will add more than 5 pounds per square foot to dead load, or more than 45 pounds per attachment point, calculated as follows:
 - h) Total weight of solar PV modules, racking, and mounting hardware _____pounds.
 - i) Total number of attachment points to roof _____.
 - j) Weight per attachment point ($A \div B$) _____pounds.
 - k) Total area of solar PV array _____square feet.
 - l) Distributed weight of solar PV array on roof ($A \div D$) _____pounds/square foot.
- 11. Show roof ventilation, ground access areas, minimum perimeter pathways of 4' in width, and interior pathways.
- 12. Provide product data sheets for the proposed surge protector and disconnect switch.

If you have any questions, please contact me at (845) 686-2305, or e-mail at jbodendorf@cplteam.com.

Very truly yours,
CPL

A handwritten signature in black ink, appearing to read "Jon Bodendorf".

Jon Bodendorf, P.E.
Senior Municipal Engineer

JDB/mts



Mr. Bruce Flower, Chairman
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cc: Barbara Roberti, Zoning Administrator (by e-mail copy)
Susan Dao, Building Inspector (by e-mail)
James Horan, Esq., Attorney to the Planning Board (by e-mail copy)
Malcolm Simpson, Planning Board Planning Consultant (by e-mail copy)
Nicholas Maselli, Planning Board Member (by e-mail copy)
Ralph Marinaccio, Planning Board Member (by e-mail copy)
Lynne Versaci, Planning Board Member (by e-mail copy)
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