



Village of Upper Nyack, NY  
328 N. Broadway  
Upper Nyack, NY 10960

January 26, 2024

**113 Larchdale Avenue  
Nyack, NY 10960**

**Trinity Solar No.  
2023-11-969040**

To the Building Official:

The following information constitutes a summary of the relevant design criteria and recommendations for the support of a new photovoltaic [PV] system on the existing roof framing components at the above-referenced location.

Criteria is as follows:

- Existing roof framing:  
Pre-fabricated Hinged Attic Trusses at Roof R4 are 2x6 at 24 o.c.; with 2x10 bottom chords.  
**Note:** Information provided by Westchester Modular Homes Inc. blueprints provided by homeowner.
- Roof Loading:
  - 3.0psf dead load (pounds per square foot - PV panels, mounting rails & hardware)
  - Ground Snow Load - 30psf - per ASCE Hazard Tool
  - Wind criteria - Exposure Category B, 115 mph windExisting Roof modification - none required; existing roof framing is acceptable for PV installation.

The installation, described above, is in general conformance with the manufacturers' specifications and complies with all applicable laws, codes, and ordinances as specified by applicable codes, including the 2020 Residential Code of New York State.

The spacing of the mounting brackets - the ClickFit Smart Foot and/or RockIt Smart Slide by EcoFasten® (or approved equal) - cannot exceed a maximum of 48" o.c. between mounting brackets and will be fastened using #14x3" long (min.) lag screws per bracket (2 min.) for a rail system or #12x3" long (min.) lag screws per bracket (2 min.) for a rail-less system. The minimum thread penetration (embedment) is 2½" beyond all roofing materials - this is adequate to resist all stated demand loads above, including wind shear. In order to evenly distribute the PV load across the roof framing, in multi-row PV layouts there shall be a minimum of 2 mounting brackets per rafter/truss chord. Pilot holes for EcoFasten self-drilling screws are not required.

Regards,

Ihor Bojcun, PE  
Structural Engineer - Trinity Solar



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