



# PV Letters

April 26, 2024

Contractor Name: Top Tier Solar Solutions  
Contractor Address: 1530 Center Park Dr  
#2911, Charlotte, NC

Subject: Proposed Solar Panel Installation  
Patricia Scardino Residence, 1591 Oakridge Duncan Rd., Fuquay-Varina, NC  
DC System Size: 9.480 kW  
PV Letters Job #004-5089

To Whom it May Concern,

I have reviewed information, provided by you or your office, related to the proposed solar panel ground mount installation at the above-referenced address. The purpose of my review was to determine if the proposed structure is adequate for the proposed installation. Based on my review and analysis, it is my professional opinion that the existing structure is adequate as designed. This analysis relies on the online calculator tool provided by the manufacturer for determining structural capacity.

## Design Parameter Summary

Governing Building Code: 2018 North Carolina Residential Code  
Risk Category: I  
Wind Exposure: C  
Design Wind Speed: 120 mph  
Ground Snow Load: 20 psf

## Ground Mount Information

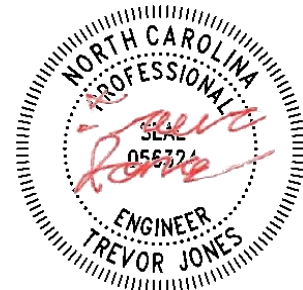
Total number of panels: 28 (4 modules high by 7 modules wide)  
E-W Pier Spacing: 10'-6"; N-S Pier Spacing: 9'-0"  
Rails: IronRidge XR1000  
Concrete Foundation Option 1: 36" below grade, 24" dia.  
Concrete Foundation Option 2: 48" below grade, 18" dia.

## Limitations and Disclaimers

Electrical design is excluded from this analysis. Solar panels must be installed per manufacturer specifications. Structural design and analysis of the adequacy of solar panels, racks, mounts, and other components is performed by each component's respective manufacturer; the undersigned makes no statement of opinion regarding such components. This letter and the opinions expressed herein are rendered solely for the benefit of the permitting authority (city or county building department) and your office, and may not be utilized or relied on by any other party.

If you have any questions or concerns, please contact me at (208)-994-1680, or email me directly at Trevor@pvletters.com.

Sincerely,  
Trevor A. Jones, P.E.



1/22/2024