



LEADING THE WAY  
Structural Engineering Firm  
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Mr. John Donoghue  
Cape Fear Solar Systems, LLC  
E-mail: [john@capefearsolarsystems.com](mailto:john@capefearsolarsystems.com)

May 16, 2022

Subject: Roof mounted solar panels – Romero Residence  
58 Will Lucas Road  
Linden, North Carolina 28356

File No.: RB-228004

Dear John:

RB Engineering, Inc. is pleased to provide the following summary engineering letter concerning the subject project. The existing roof system is constructed with timber trusses at 24 inches on center, a plywood roof deck and a composition asphalt shingle roof. We have reviewed the proposed solar layout and have structurally evaluated the additional proposed roof loading with the following conclusions:

- The total surface area of the new proposed solar array (31 PV modules) is approximately 725 SF. The solar panel installation has been evaluated for an ultimate design wind speed of 120 mph.
- The subject roof mounted PV system attachment method is structurally adequate to transfer the design uplift loads in accordance with the current North Carolina residential building code.
- The existing roof system is structurally adequate to transfer the applicable design loads - including the additional or modified design loading (dead, wind and snow loads) due to the proposed solar panel installation - in accordance with the current North Carolina residential building code.

Our services were provided in accordance with the standard of practice for structural engineering and within the limits imposed by scope, schedule, and budget. If you have any questions or if I can be of further assistance to you on this project, please contact me at (919) 677-9662.

Respectfully submitted,

Ron Bittler, PE  
President / Structural Engineer  
RB Engineering, Inc.

DocuSigned by:  
Ron Bittler  
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5/16/2022

