



May 6, 2024

Lunex Power

6824 S Manhattan Ave
Tampa , FL 33616

RE Short Residence

231 SE Golf Club Ave, Lake City , FL 32025

Client Project #:231Shor

PFE Project #: 241868

On behalf of Lunex Power, Penn Fusion Engineering LLC (PFE) performed a structural analysis of the roof at the above referenced location. The purpose of our analysis was to determine if the existing roof system is structurally sufficient to support the new photovoltaic modules in addition to the code required design loads. Our analysis is based on the information provided by Lunex Power and is limited only to the areas where the modules are intended to be placed.

System Specifications

Panel Specs: (26) Hanwha - Q.PEAK DUO BLK ML-G10+/t 400W

Racking System: K2 - 44-X

The modules are to be located on the following roof planes:

Roof Planes						
Mounting Plane	Member Size	Member Spacing	Horizontal Span	Sheathing	Roofing Type	Roofing Layers
1	2x6	24"	10'-10"	CDX 1/2"	Asphalt Shingles	1
2	Truss	24"	30'-8"	CDX 1/2"	Asphalt Shingles	1
3	Truss	24"	30'-8"	CDX 1/2"	Asphalt Shingles	1

Design Criteria		
Building Code(s)	Ground Snow P _g	Wind Speed V
<ul style="list-style-type: none">• 2023 Florida Building Code• 2023 Florida Residential Code• ASCE 7-16	0 psf	120 mph

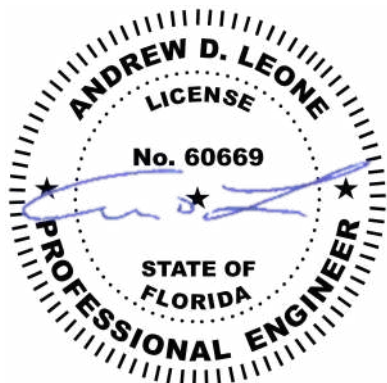
Analysis Results			
Mounting Plane	Attachment Hardware	Max Attachment Spacing	Rafter Pass/Fail
1	M5 x 60 Lag Bolt	48"	Pass
2	M5 x 60 Lag Bolt	48"	Pass
3	M5 x 60 Lag Bolt	48"	Pass

This office has determined that the existing roof as specified above will meet the structural requirements of the above referenced codes in addition to the PV load when installed in accordance with the manufacture's instructions.

If you have any questions regarding this analysis, please feel free to contact us.

Best Regards,
Penn Fusion Engineering, LLC

Andrew D. Leone, P.E.
Principal



05/06/2024

This item has been digitally signed and sealed by Andrew D. Leone on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Andrew D. Leone

Digitally signed by
Andrew D. Leone

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