

ENGINEERINC

Structural Engineering Letter

Date: 09/27/2023

Project Name: Roneil Swaby

Project Address: 402 New Castle Ln, Spring Lake, NC, 28390

Contractor : Renewable Energy Design Group

Contractor Address : 90 Beechwood Dr Lewisville, North Carolina 27023

Attn : To Whom It May Concern

A Field observation of the condition of the existing framing system was performed by an audit team from **Renewable Energy Design Group**. From the Field observation of the property, the existing roof structure observed as follows:

- Existing roof is supported by **2 x 4 @ 24"** rafters at the solar array. The rafters are sloped at approximately **33.69 degree** and have maximum projected horizontal span of **7 feet** in between load bearing supports.

Design Criteria

- Applicable codes: 2018 North Carolina Residential Code ASCE 7-16
- Ground Snow Load: 25 psf
- Roof Dead Load: 20 psf
- Wind speed: 125 mph
- Risk Category: II



Exp.: 12/31/2024
Date Certified and
Signed: 09/27/2023

I certify that the capacity of the structural roof framing that directly supports the additional gravity loading due to the solar panel supports and modules had been reviewed and determined to meet or exceed the requirements in accordance with the Design Criteria.

If you have any questions or concerns please contact us,

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