



June 7, 2018

Sunrun Inc.
133 Technology Dr, Suite 100
Irvine, CA, 92618

Subject: Structural Certification for Installation of Solar Panels

Job Number: 18-05068

Client: Jeannette Taylor - 13R-451TAYL

Address: 1451 East 105th Street, Brooklyn, NY 11236

Attn.: To Whom It May Concern

A field observation of the condition of the existing framing system was performed by an audit team from Sunrun Inc..

From the field observation of the property, the existing roof structure was observed as follows:

The existing roof structure consists of:

- Composition Shingle over Roof Plywood is supported by 2x6 @ 16"o.c. SPF#2 at ARRAY 1. The rafters are sloped at approximately 21 degree and have a maximum projected horizontal span of 12 ft 6 in between load bearing supports.
- Composition Shingle over Roof Plywood is supported by 2x6 @ 16"o.c. SPF#2 at ARRAY 2. The rafters are sloped at approximately 21 degree and have a maximum projected horizontal span of 12 ft 6 in between load bearing supports.
- Composition Shingle over Roof Plywood is supported by 2x6 @ 16"o.c. SPF#2 at ARRAY 3. The rafters are sloped at approximately 21 degree and have a maximum projected horizontal span of 11 ft 4 in between load bearing supports.

Design Criteria:

- Applicable Codes = 2014 NYC Building Code, ASCE 7-05 & 7-10, and NDS-05
- Ground Snow Load = 25 psf; Roof Snow Load = 17.4 psf ARRAY 1 ; 17.4 psf ARRAY 2 ; 17.4 psf ARRAY 3
- Roof Dead Load = 7.5 psf ARRAY 1 ; 7.5 psf ARRAY 2 ; 10.9 psf ARRAY 3
- Basic Wind Speed = 98 mph Exposure Category C

As a result of the completed field observation and design checks:

- ARRAY 1: is adequate to support the loading imposed by the installation of solar panels and modules. Therefore, no structural upgrades are required.
- ARRAY 2: is adequate to support the loading imposed by the installation of solar panels and modules. Therefore, no structural upgrades are required.
- ARRAY 3: is adequate to support the loading imposed by the installation of solar panels and modules. Therefore, no structural upgrades are required.

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 without structural upgrade in accordance with the 2014 NYC Building Code

If you have any questions on the above, do not hesitate to call.

Sincerely,

Paul Zacher, S.E.



06/07/2018