

August 20, 2024

Unirac
Attn: Engineering Services Department
1411 Broadway Boulevard NE
Albuquerque, NM 87102-1545
TEL: (505) 242-6411

**RE: ENGINEERING CERTIFICATION LETTER FOR THE UNIRAC SOLARMOUNT (SM)
ROOF PV PANEL SUPPORT SYSTEM
STATE: VIRGINIA
TECTONIC WORK ORDER #: 12557.02 (Rev 1)**

The Unirac SOLARMOUNT (SM) Photovoltaic Panel Support System is a proprietary framed photovoltaic panel support system that is installed on a roof. Tectonic Engineering Consultants, P.C. (Tectonic) has reviewed the SM design methodology along with the U-Builder tool; a Unirac online design tool. The review included the following SM products, SM Light, Heavy Duty, and Standard rail with both the standard and pro hardware.

Tectonic has determined that the design is a rational approach and follows the structural requirements of the following reference documents:

Codes/Standards:

- 2009-2021 International Building Code by International Code Council, Inc with provisions from SEAOC PV-2.
- ASCE/SEI 7-05 through 7-22 Minimum Design Loads for Buildings and Other Structures, by American Society of Civil Engineers.
- Virginia Uniform Statewide Building Code (USBC), 2009 through 2021 Editions.
- 2005-2020 Aluminum Design Manual, by Aluminum Association.

This letter certifies that the structural analysis of the racking members, connections, and components directly related to Unirac's system are in compliance with the above codes. The design methodology is acceptable under components and cladding loads associated with the building's roof structure when the system is installed in accordance with manufacturer specifications. If the loading criteria does not meet Unirac's specifications, owner shall contact Unirac for a site-specific certification.

Project Contact Info

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Attachments approved for the SM system to the structure include the following and is installed per Unirac’s U-Builder report and installation guides:

- **Shingle Roof:** L-Foot Flashkit Pro, Standoffs, Flashloc Comp, Flash Loc Duo, and Flash Kit Pro SB
- **Metal Roof:** Standing Seam Attachments, PM-9000s, and PM Adjust Slotted
- **Tile Roof:** Solar hooks, Flashkit Tile Replacement (TR)
- **Flat Roof:** SM Butyl, and Flashloc RM (Flashloc RM can be used only for less than or equal to 5-degree roof).

The U-Builder Tool should be used under the responsible charge of a registered professional engineer required by the authority having jurisdiction. The design tool and Unirac do not evaluate the existing roof structure, or the PV panels themselves. See the construction and installation drawings and manuals for additional information provided by Unirac.

Sincerely,

Tectonic



Antonio A. Gualtieri, I
Executive Vice President



08/20/2024

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