Engineering Alliance, Inc

https://www.eng-alliance.com

06-January-2025

Unirac
1411 Broadway Blvd. NE
Albuquerque, NM 87101
Tel: 505 242 6411

Attn.: Engineering Department

Subject: Engineering Certification for the EcoFoot2+ Roof Mounted Ballasted System to Support Photovoltaic Panels.

The EcoFoot2+ is a ballasted photovoltaic panel support system consisted of three core components - EcoFoot2+ base, wind deflector and preassembled universal clamp holding the bay and PV modules together. The ballasted EcoFoot2+ base is the main dead weight to resist against any uplift due to wind loads. Lateral forces, both wind and seismic, are resisted by friction between the EcoFoot2+ base/Ecofoot surface and the roof surface.

Unirac online design assistant tool U-Builder 2.0 is used to determine the required ballast quantity. The U-Builder 2.0 covers a wide range of system configurations and loading and allows the user to customize the input to match the specific project conditions.

The EcoFoot2+ PV racking system satisfies the RWDI wind tunnel test results and the ballasted system design methodology, which makes the U-Builder 2.0 a rational and easy method of designing the EcoFoot2+ ballasted PV module design tool in compliance with the structural requirements of the following reference documents:

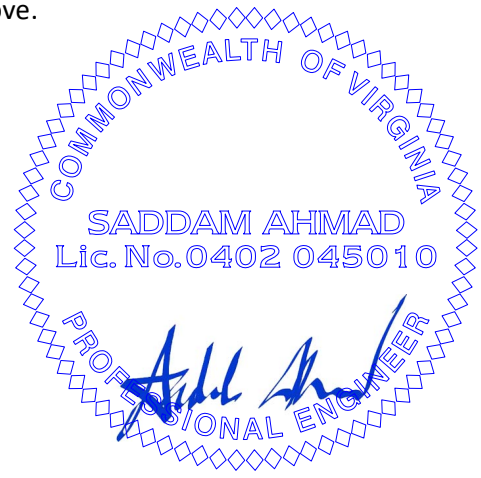
Codes: ASCE/SEI 7-10 & 7-16 Minimum Design Loads for Buildings and Other Structures
International Building Code, 2012-2021 Edition

Other: RWDI Wind Pressure Study Report # 2002293
SEAOC PV1-2012 Report – Structural Seismic Requirements and Commentary for Rooftop Solar PV Arrays
SEAOC PV2-2017 Report - Wind Design for Low-Profile Solar Photovoltaic Arrays on Flat Roofs

This letter certifies that the EcoFoot2+ Roof Mounted Ballasted Photovoltaic Panel Support System and online design tool U-Builder 2.0 are in compliance with the reference documents mentioned above.

Please feel free to call or email for any questions or clarifications.

Prepared By:
Engineering Alliance, Inc
Sugar Land, TX



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