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Unirac, Inc.
1411 Broadway Blvd. NE
Albuquerque, NM 87102

To: Building Department or Others:

RE: Engineer's Notice of Evaluation for UniRac SolarMount™
Solar Module Mounting System

Dear Sir:

I have reviewed Unirac SM SolarMount™ “Design & Engineering Guide – Solarmount Enhancements: Flush-To-Roof Design” and the “Installation Guide”; consisting of Unirac’s three rail types, Solarmount Light, Solarmount Rail profile 2 and Solarmount HD and certify that the information and results are accurate. To determine the design level forces, the appropriate wind speed shall be determined as prescribed by local jurisdiction requirements and applied in accordance to the Florida Building Code (FBC) - 2014 5th Ed. The building code requires that wind loading is determined by FBC -2014 5th Ed. that is based upon ASCE 7-10. Unirac’s “Design & Engineering Guide” utilizes ASCE 7-10 -Method 2 for which Unirac’s On-Line U-Builder or Appendix B – Pressure Lookup Tables are based upon, and that is dependent upon conditions of Low-Rise Buildings with spatial form, height and other structure parameters that are specified in the code provisions for determining the applied wind and snow loading pressures imposed onto the Unirac SolarMount™ rails supporting solar panels. The FBC definition of Exposure category is different from ASCE 7-10 and as such, the Unirac manual definition of Exposure categories should be superseded by FBC Exposure category definitions. Certain Florida municipalities have special requirements for Exposure Category and use different Basic Wind Speed maps than those indicated in Unirac Guide so that the local jurisdiction requirements will supersede the Unirac design information. The Unirac railing assembly requirements for the installation are properly represented in the SolarMount™ Installation Guide.

For other conditions, the determination of wind pressures should be determined by Unirac’s Analytical procedures. The FBC requires that wind loading be determined based upon ASCE 7-10 that which is dependent upon conditions of spatial form, height and other structure parameters that are specified in the code provisions for determining the applied wind and snow loading pressures imposed onto the Unirac SolarMount™ rails supporting solar panels.

The design verification is based on:

- I. ASCE7-10 – ASCE Standard
- II. “Steel Construction Manual,” 13th Ed., American Institute of Steel Construction, Chicago, IL, 2006.
- III. “Aluminum Design Manual”, The Aluminum Association, Washington D.C., 2006.
- IV. Allowable Load Test, Unirac UTR-248 SM2 Enancements.doc

Use:

Three methods have been provided by Unirac “Design & Engineering Guide” to aide in the solar railing requirements.

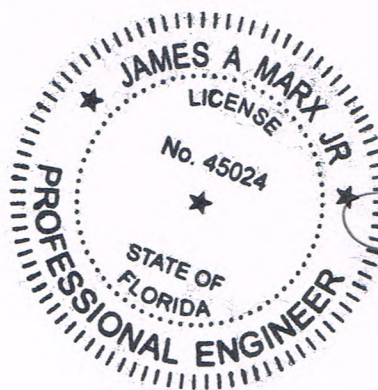
- A) On-Line U-Builder that will provide Bill of Materials & Calculations from project specific input.
- B) Prescriptive Design Method when project specific requirements are known, the project load pressures can be looked up in Tables located in Appendix B.
- C) Do it Yourself – Analytical method design approach that follows ASD calculations per ASCE 7.

By this letter, I certify that the Unirac SolarMount™ assembly, when designed in accordance with one of the 3 methods outlined in the “Design & Engineering Guide” and installed in accordance with the “Installation Guide” will meet the solar railing requirements of the building codes adopted by Florida. Others should evaluate the building structure to which the Unirac SolarMount™ system is to be connected on a case-by-case basis to ensure its adequacy to accept attachments and to support all applied loadings per the building code.

Please call me if you have any questions or concerns.

Sincerely,

James A. Marx, Jr.
Professional Engineer
FL License Number FL 45024



cc: Tom Young, Unirac