

August 25, 2016

Sol Attach
c/o Kevin Stapleton
535 Shady Hollow
New Braunfels, TX 78132



Re: Solar Mounting System for Pitched Rooftops with Sol Attach Roof Mounting System in **Texas**

To Whom It May Concern:

Anchor Engineering, Inc. has reviewed the Sol Attach Roof Mounting System for the design assumptions outlined below and we have concluded that the Sol Attach Roof Mounting System is in compliance with the following codes/standards.

1. ASCE 7-05 – Minimum Design Loads for Buildings and Other Structures, by ASCE/SEI, 2005.
2. ASCE 7-10 – Minimum Design Loads for Buildings and Other Structures, by ASCE/SEI, 2010.
3. 2006 IBC/ 2009 IBC/ 2012 IBC/ 2015 IBC, by International Code Council, 2006/2009/2012/2015.
4. 2006 IRC/ 2009 IRC/ 2012 IRC/ 2015 IRC, by International Code Council, 2006/2009/2012/2015.

Design Assumptions:

- Maximum mean roof height of no more than 30'-0" as defined by ASCE 7-05/ASCE 7-10.
- Importance Factor of no more than 1.0 as defined by ASCE 7-05/ASCE 7-10.
- Dry service conditions.
- Array may be located within roof zones 1, 2, or 3.
- Analysis of the mount is based upon the maximum effects of either the largest gravity loads or wind uplift loads. The point loads (either positive or negative) can act in either direction depending upon the type of loading (i.e. wind, snow...etc.).
- Fasteners installed per manufacturer specifications.
- When using the Sol Attach, four PV mounts per PV module such that adjacent modules share two PV mounts.
- Use two Sol Attach per side unless noted otherwise (See charts below).
- At end clamp locations the Sol Attach Mount is only activated by one half of the panel.
- Snow load = 5 psf.

Product Specifications:

- Aluminum alloy is 6061-T6.
- Kwikseal II Woodbinder Screws. The screws must penetrate the sheathing fully and have a minimum of three threads exposed.
- (3) screws per Sol Attach Mount at end clamp locations.

Module Specifications:

- Modules may be installed in landscape or portrait orientation.
- Modules may have a maximum short side dimension of 39.1".
- Modules may have a maximum long side dimension of 77.1".
- Modules may be a maximum of 59.5lb.

Roof Pitch: 7-27°				
Wind Speed, (V_{ult})	Wind Speed, (V_{asd})	Exposure	Fastener Req'd per Sol Attach w/ 7/16" OSB	
155 mph \geq x	120 mph \geq x	C	(6) Screws	
155 mph \geq x > 148 mph	120 mph \geq x > 115 mph	B	(6) Screws	
148 mph \geq x	115 mph \geq x	B	(4) Screws	

Roof Pitch: 27-45°				
Wind Speed, (V_{ult})	Wind Speed, (V_{asd})	Exposure	Fastener Req'd per Sol Attach w/ 7/16" OSB	
155 mph \geq x >	120 mph \geq x	B, C	(4) Screws	

Module Specifications:

- Modules may be installed in landscape or portrait orientation.
- Modules may have a maximum short side dimension of 39.1".
- Modules may have a maximum long side dimension of 77.1".
- Modules may be a maximum of 59.5lb.

Please see attached data sheets for the Sol Attach Roof Mounting System specification sheet.

The Sol Attach Roof Mounting System was evaluated for pull-out resistance of the fasteners and punching shear in the OSB. Review of any building structural element is outside the scope of this letter.

Should questions arise, or if further information is required, please contact our office.

Sincerely,
 Anchor Engineering, Inc.



John J. Laur, E.I.
 Project Manager

Reviewed by:



David A. Poe, P.E., S.E.
 Principal Engineer