HISTORIC AND DESIGN REVIEW COMMISSION

February 15, 2017

HDRC CASE NO: 2017-065 735 E GUENTHER ST **ADDRESS:** NCB 2882 BLK 7 LOT NE IRR 116.4 OF 8 & NE IRR 113.4 OF 9 **LEGAL DESCRIPTION:** RM-4,H,HL,RIO-4 **ZONING: CITY COUNCIL DIST.:** 1 **DISTRICT:** King William Historic District Wehrhan House LANDMARK: **APPLICANT:** Jay Monday/Monday Construction **OWNER:** Bryan Lin, GABRIELA BRZANKALSKI Solar panel installation **TYPE OF WORK:**

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to install 20 solar panels on the flat roof of the rear accessory structure.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 3, Guidelines for Additions

6. Designing for Energy Efficiency

C. SOLAR COLLECTORS

i. Location—Locate solar collectors on side or rear roof pitch of the primary historic structure to the maximum extent feasible to minimize visibility from the public right-of-way while maximizing solar access. Alternatively, locate solar collectors on a garage or outbuilding or consider a ground-mount system where solar access to the primary structure is limited.

iii. *Mounting (flat roof surfaces)*—Mount solar collectors flush with the surface of a flat roof to the maximum extent feasible. Where solar access limitations preclude a flush mount, locate panels towards the rear of the roof where visibility from the public right-of-way will be minimized.

FINDINGS:

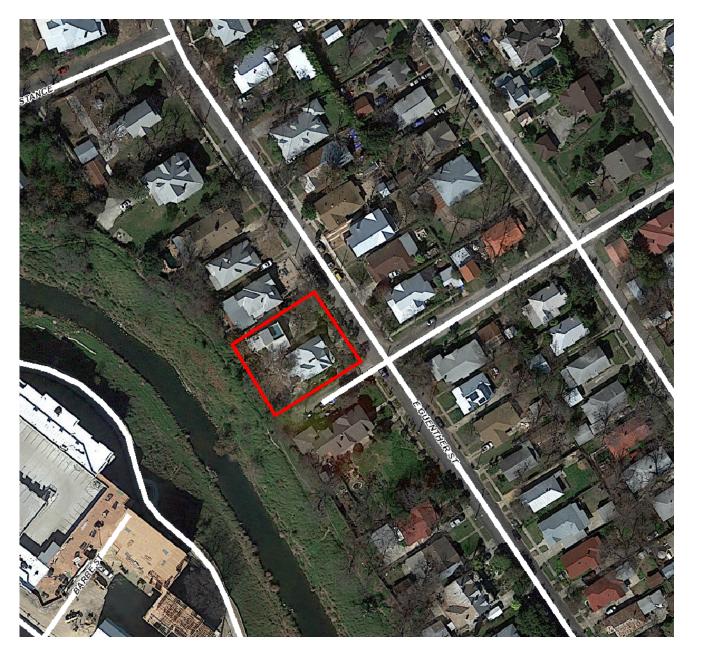
- a. The structure is a two-story rear accessory structure set to the right of the main structure. It has a flat roof with two canopy structure. The main structure is a contributing structure in the King William Historic District, which was designated in 1968. The rear accessory structure is a contemporary accessory building that is set back from the public right-of-way.
- b. The accessory structure has a flat roof. According to the Guidelines for Additions 6.C., installations should be in locations that minimize visibility from the public right-of-way. Staff made a site visit on February 8, 2017, and observed that the panels would likely not be seen from the public right-of-way due to the height and setback of the accessory structure.
- c. The proposed panels will be mounted flush with flat canopy roof of the accessory structure. According to the Guidelines for Additions 6.C.iii, solar collectors should be flush with the roof surface. Staff finds the proposal consistent with the guidelines.

RECOMMENDATION:

Staff recommends approval as submitted based on findings a through d.

CASE MANAGER:

Lauren Sage





Flex Viewer

Powered by ArcGIS Server

Printed:Feb 08, 2017

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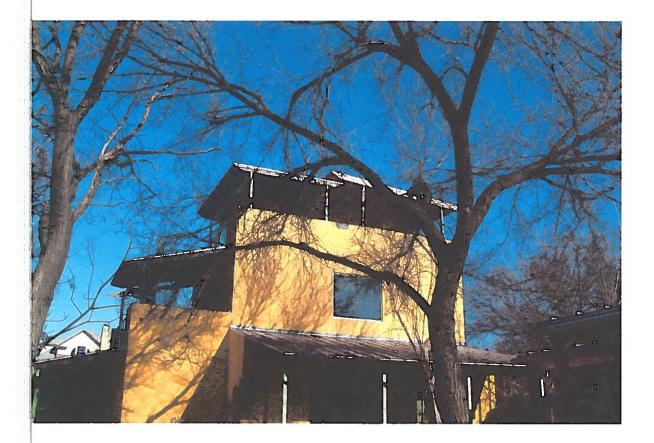




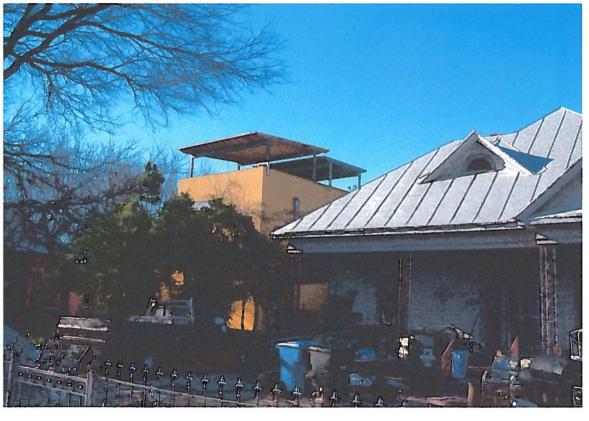
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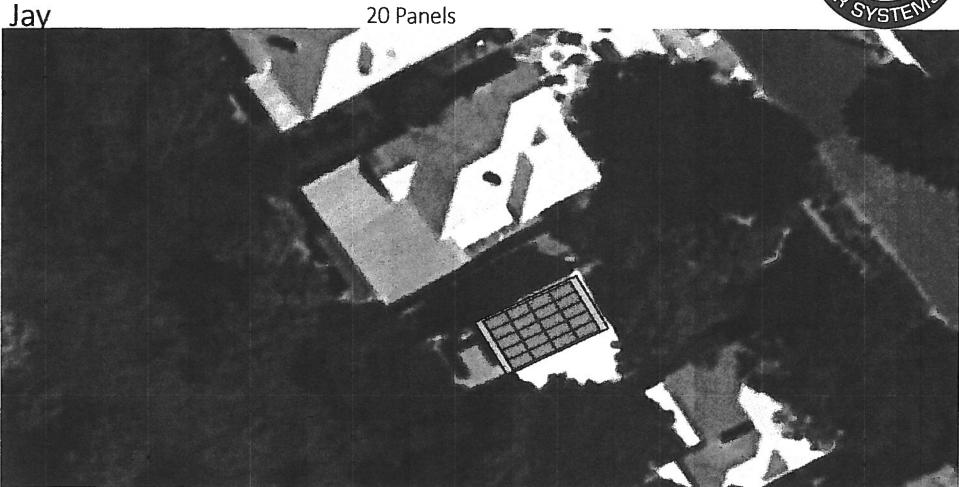






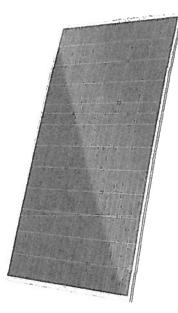
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MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2008 / Quality management system ISO/TS 16949:2009 / The automotive industry quality management system ISO 14001:2004 / Standards for environmental management system OHSAS 18001:2007 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730: VDE / MCS / CE / SII / CEC AU / CQC / INMETRO UL 1703 / IEC 61215 performance: CEC listed (US) UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC 60068-2-68: SGS PV CYCLE (EU) / UNI 9177 Reaction to Fire: Class 1

BBA





* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

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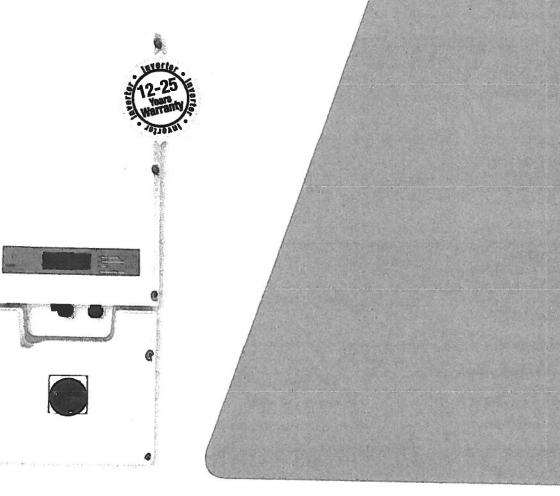
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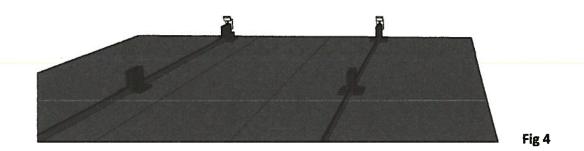
Standing Seam Installation Description

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1. Position mounting feet on roof, parallel to the roof ridge (fig 3). Press the mounting feet down flat to the roof and secure the mounting feet by tightening the set screws securely against standing seam.



2. Add two more feet parallel with upper mounting feet. Position them so that the module frame will land on these feet one inch from the upper edge of the mounting feet (fig 4).



3. Install module firmly up against end-clamps (fig 5). Tighten end-clamps against module frame and then tighten upper flange nuts against mounting feet to stabilize the end-clamp against upper end of mounting feet (figs 1, 2).

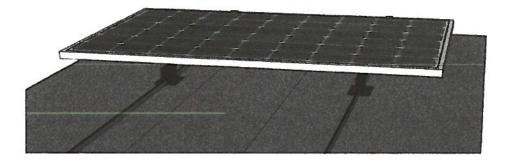
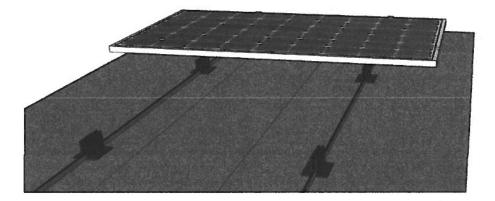
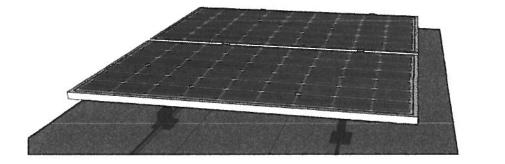


Fig 5

4. Secure two more mounting feet parallel with first mounting feet. Position these feet so that the next module will land on them at one inch from the upper end of the mounting feet (fig 6).



5. Add two mid-clamps tight against first module. Add second module tight against mid-clamps. Tighten mid-clamps against both modules (fig 7).



6. Repeat process in steps 5 and 6 for each module of first column. Install final panel with two end clamps at the bottom following the process in steps 1 and 2.

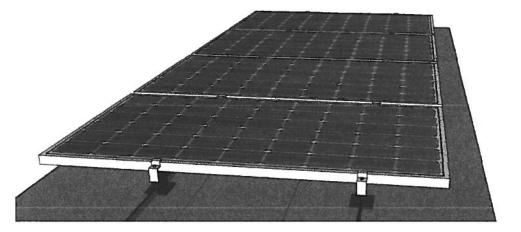


Fig 6

Fig 7



Your sole supplier for residential solar mounting solutions

We are grateful you have chosen our Sol Attach product for your tilted roof solar needs. We believe you will not only find that our product is the most economical and aesthetically pleasing solution for your company, but also that with these simple instructions will prove our product is the easiest mounting solution on the market.

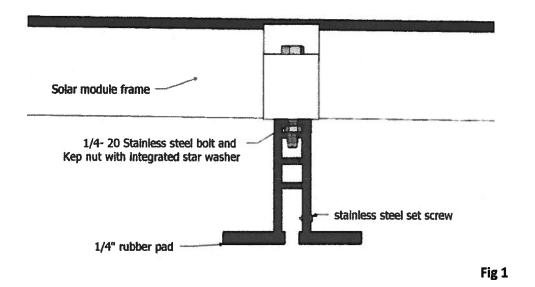
Installer Responsibilities:

To be assured that the Sol Attach mount is used correctly, it is necessary that installers follow these guidelines. To disregard them will void the limited manufacturer's warranty and may prove hazardous.

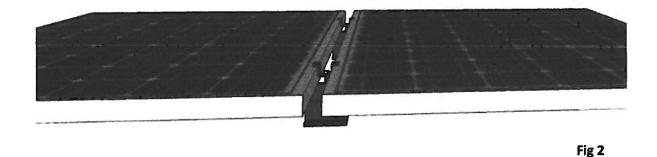
- Have the system designed by a qualified professional who takes into consideration snow load, wind speed, necessary pull out strengths of fasteners, types of substrates, and structural integrity of the building to which the array is being mounted.
- 2. It is incumbent upon the installer to perform a pre-installation inspection of the building roof structure and to insure that it is sound and adequate to support the weight of the array and that the Sol Attach mount chosen is the correct product for the job. It is also the installer's responsibility to insure that the roof substrate and rafters are in good condition and that the mounting feet are adequately secured to the substrate or rafters according to local and national building codes.
- 3. The installer is responsible to obtain all necessary building permits and comply with all local and national building codes.
- 4. Chose and use appropriate sealants and or flashings in accordance with the respective manufacturers' particular instructions and guidelines.
- 5. Only use parts included with the Sol Attach mount purchased and insure that the Sol Attach mounts have not been damaged in shipping or storage or transit to the jobsite.
- 6. Insure the mounting feet set flat on the roofing surface. In the event that it is necessary to trim part of the top layer of a shingle so the foot does not rock or set unevenly, it is the installer's responsibility to insure it is trimmed and sealed in accordance with approved roofing techniques and guidelines.
- 7. Insure that the Sol Attach mounts chosen and installed do not compromise or hinder the proper installation of the photovoltaic electrical system.
- 8. These instructions do not address wire management. It is the installer's responsibility to secure wiring in accordance with the module manufacturers' instructions as well as local building codes.
- 9. These mounts are not intended to ground the photovoltaic modules or system. Each module must be grounded to each other with bare copper wire according local building codes.

Top Mount

End-clamp assembly



Mid-clamp assemblies



The Sol Attach end-clamps and mid-clamps are much like "traditional" rail system clamps. However, instead of using t-bolts which stick upward and give a rather unfinished look, the Sol Attach system uses ¼" bolts which are screwed downward into the clamps when they are tightened.

- First, insert the bolt end down through the appropriate sized end-clamp or mid-clamp.
- Then turn a Kep nut, containing a grounding star washer, loosely onto the end of the bolt.
- Finally, slide the Kep nut/ bolt assembly into the top groove of the Sol Attach mount and tighten once the modules are in place.