

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

BUILDING INSPECTION

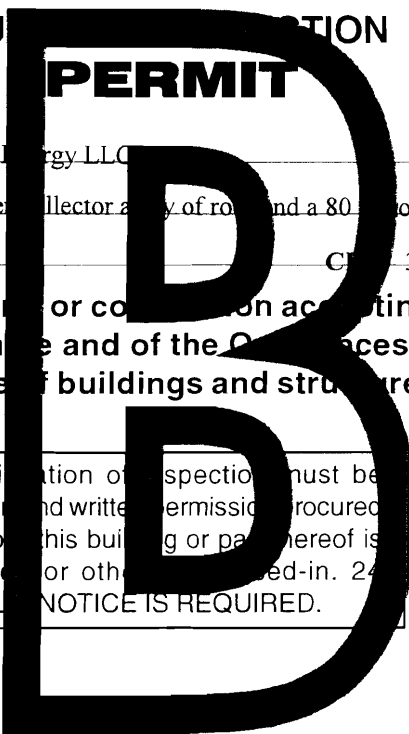
PERMIT

Permit Number: 081518

Please Read Application And Notes, If Any, Attached

This is to certify that HOLLAND LYNN /Revision Energy LLC
has permission to install a 30-tube solar hot water collector array of roof and a 80 gallon storage tank in basement w/ an integral electric heating
AT 310 SUMMIT ST CLATSOP 382 C013001

provided that the person or persons, firm or corporation accounting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.



Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise finished-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

- Fire Dept. _____
- Health Dept. _____
- Appeal Board _____
- Other _____
Department Name

City Clerk 12/9/08
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 08-1518	Issue Date: 12/9/08	CBL: 382 C013001
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Location of Construction: 310 SUMMIT ST	Owner Name: HOLLAND LYNN	Owner Address: 310 SUMMIT ST	Phone:
Business Name:	Contractor Name: Revision Energy LLC	Contractor Address: 109 Fox Street Portland	Phone: 2072216342
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	Zone: R-3

Past Use: Single Family Home	Proposed Use: Single Family Home - install a 30-tube solar hot water collector array of roof and a 80 gallon storage tank in basement w/ an integral electric backup	Permit Fee: \$120.00	Cost of Work: \$9,332.00	CEO District: 5	8,105#
		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: R-3 Type: SB IRC-2003		

Proposed Project Description:
install a 30-tube solar hot water collector array of roof and a 80 gallon storage tank in basement w/ an integral electric backup

Signature: _____ Date: 12/9/08

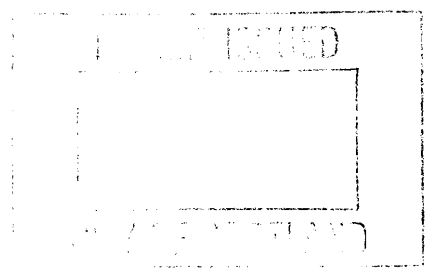
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: Approved Approved w/Conditions Denied

Signature: _____ Date: _____

Permit Taken By: Idobson	Date Applied For: 12/04/2008	Zoning Approval	
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<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input checked="" type="checkbox"/> Wetland <i>ok per 14-430 on height limits</i> <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Minor <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Denied <i>ok with conditions</i> Date: 12/4/08	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: _____
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 08-1518	Date Applied For: 12/04/2008	CBL: 382 C013001
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Location of Construction: 310 SUMMIT ST	Owner Name: HOLLAND LYNN	Owner Address: 310 SUMMIT ST	Phone:
Business Name:	Contractor Name: Revision Energy LLC	Contractor Address: 109 Fox Street Portland	Phone: (207) 221-6342
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	

Proposed Use: Single Family Home - install a 30-tube solar hot water collector array of roof and a 80 gallon storage tank in basement w/ an integral electric backup	Proposed Project Description: install a 30-tube solar hot water collector array of roof and a 80 gallon storage tank in basement w/ an integral electric backup
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Dept: Zoning	Status: Approved with Conditions	Reviewer: Marge Schmuckal	Approval Date: 12/04/2008
Note:	Ok to Issue: <input checked="" type="checkbox"/>		
1) This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. Without special approvals. 2) This property shall remain a single family dwelling. Any change of use shall require a separate permit application for review and approval. 3) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.			
Dept: Building	Status: Approved with Conditions	Reviewer: Chris Hanson	Approval Date: 12/09/2008
Note:	Ok to Issue: <input checked="" type="checkbox"/>		
1) Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work. 2) Separate permits are required for any electrical, plumbing, HVAC or exhaust systems. Separate plans may need to be submitted for approval as a part of this process.			

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

 X **Final inspection required at completion of work.**

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

Signature of Applicant/Designee

Date

Signature of Inspections Official

Date



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>310 Summit Street, Portland, Maine</u>		
Total Square Footage of Proposed Structure/Area		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart# <u>382</u> Block# <u>C</u> Lot# <u>13</u>	Applicant * must be owner, Lessee or Buyer * Name <u>Lynn Holland</u> Address <u>310 Summit Street</u> City, State & Zip <u>Portland, Maine 04103</u>	Telephone: <u>207-791-3130</u>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>9,332</u> C of O Fee: \$ <u>110</u> Total Fee: \$ _____
Current legal use (i.e. single family) <u>Single Family Residential</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>heating domestic hot water with solar tubes</u> Is property part of a subdivision? _____ If yes, please name _____ Project description: <u>Install a 30-Tube Solar Hot Water Collector Array on Roof and a 80 gallon storage tank in basement with an integral electric backup. Replacing old HB Smith Series 8 boiler</u>		
Contractor's name: <u>Revision Energy, LLC</u> Address: <u>109 Fox Street</u> City, State & Zip <u>Portland, ME 04101</u> Telephone: <u>207-221-6342</u> Who should we contact when the permit is ready: <u>MELISSA DUNGAN (Revision)</u> Telephone: <u>207-221-6342</u> Mailing address: <u>(Same as above)</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: [Signature] Revision Energy, LLC Date: 12/3/08

This is not a permit; you may not commence ANY work until the permit is issued

DEC 11 2008

Info we need to give to city hall for the building permit in Portland, Maine:

1. Basic Info on the units that will be mounted on the roof
2. Weight of the units going on the roof. 208.5 pounds
3. Size of the units going on the roof. width = 86.4" / height = 6.14" (manifold + standard frame)
4. Roof pitch this is: 3ft 12 inches asphalt roof
5. A description of any perforations that will be made in the roof and how we plan to take care of them (clasps or what have you)
6. An engineer's report that verify that the roof can safely hold the collectors.
7. this application filed out:

<http://www.portlandmaine.gov/planning/newresidentialsinglefamilychecklist.pdf>

And taken to city hall at 389 Congress Street | Room 315 | Portland, Maine 04101 | 207-874-8693

fluid capacity 24 fl oz
 grass area 46.8 ft

General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: _____		
Total Square Footage of Proposed Structure/Area	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Applicant *must be owner, Lessee or Buyer* Name _____ Address _____ City, State & Zip _____	Telephone: _____
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name _____ Address _____ City, State & Zip _____	Cost Of Work: \$ _____ C of O Fee: \$ _____ Total Fee: \$ _____
Current legal use (i.e. single family) _____ If vacant, what was the previous use? _____ Proposed Specific use: _____ Is property part of a subdivision? _____ If yes, please name _____ Project description: _____		
Contractor's name: _____ Address: _____ City, State & Zip _____ Telephone: _____		
Who should we contact when the permit is ready: _____ Telephone: _____ Mailing address: _____		



310 Summit St



DESIGN, INSTALLATION AND SERVICE OF RENEWABLE AND EFFICIENT ENERGY SYSTEMS

December 4, 2008

Fortunat Mueller
ReVision Energy
109 Fox street
Portland, ME 04101

RE: Holland Residence Solar hot water installation
Address: 310 Summit St, Portland, Maine

To Whom it May Concern:

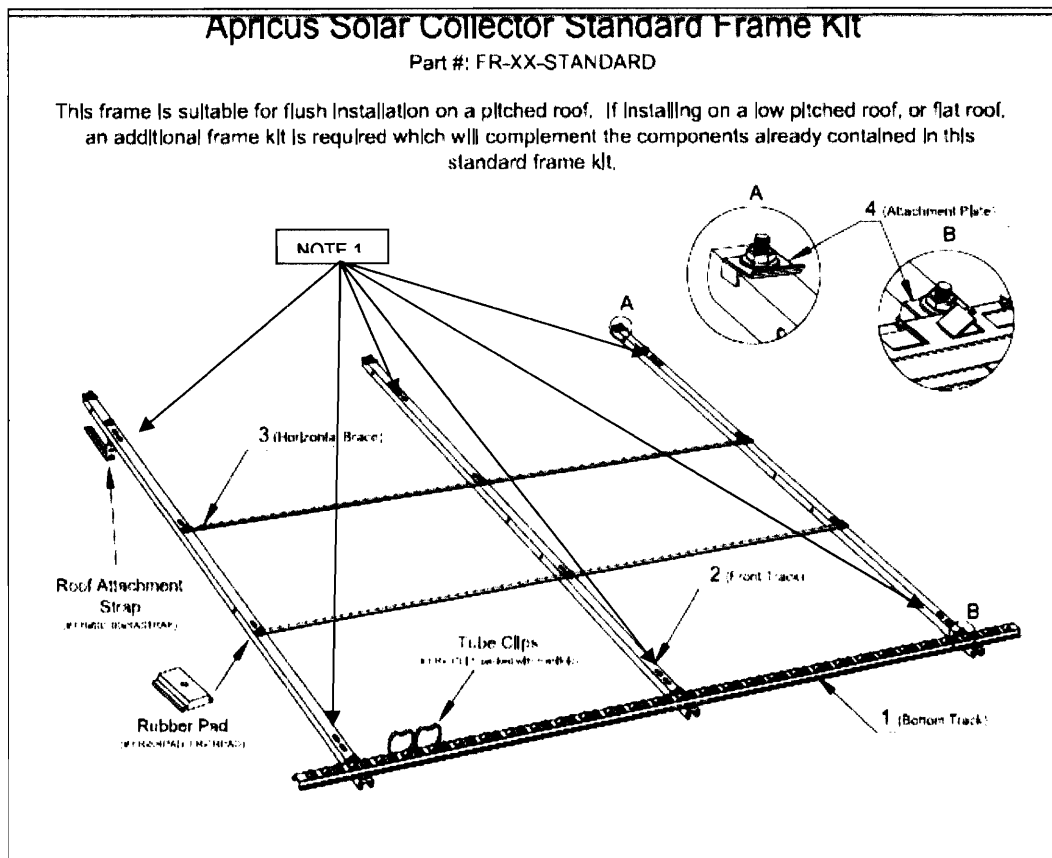
I have reviewed the condition of the existing roof structure at the project site, and the installation method described in the attachment and find them to be sufficient and in accordance with applicable codes and standards.

Respectfully,

Fortunat Mueller
Maine PE # 11246



Apricus structural mounting detail:



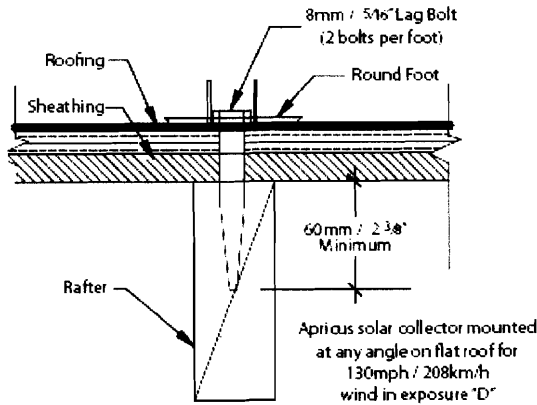
Notes:

1. Fasten to roof framing using (6) 5/16" stainless steel Lag Bolt.
2. Drill pilot hole for lag bolt 60-75% of lag shank diameter.
3. Seal all penetrations using manufacturer supplied Rubber pad and Geocell 2300 tripolymer sealant or equivalent

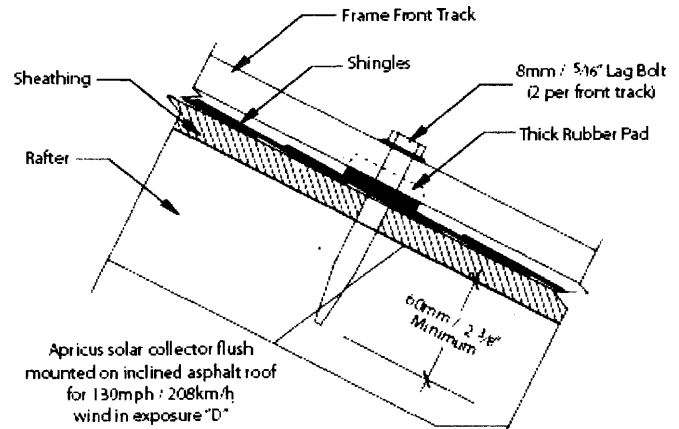


Lag bolt details:

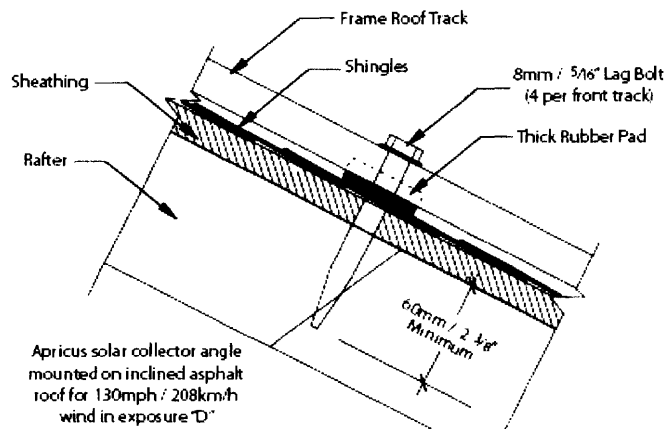
**Mount on Flat Roof
using Round Feet**



**Flush Mount on
Pitched Asphalt Shingle Roof**



**Angle Mount on Pitched
Asphalt Shingle Roof**

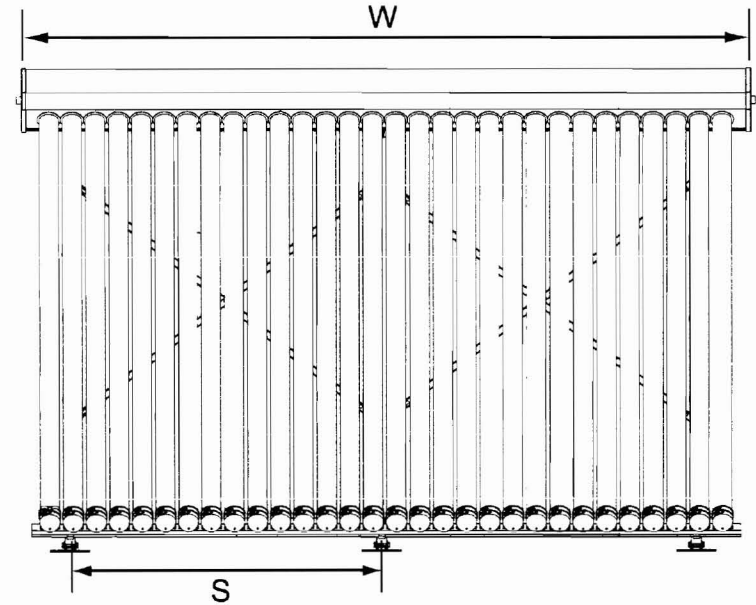
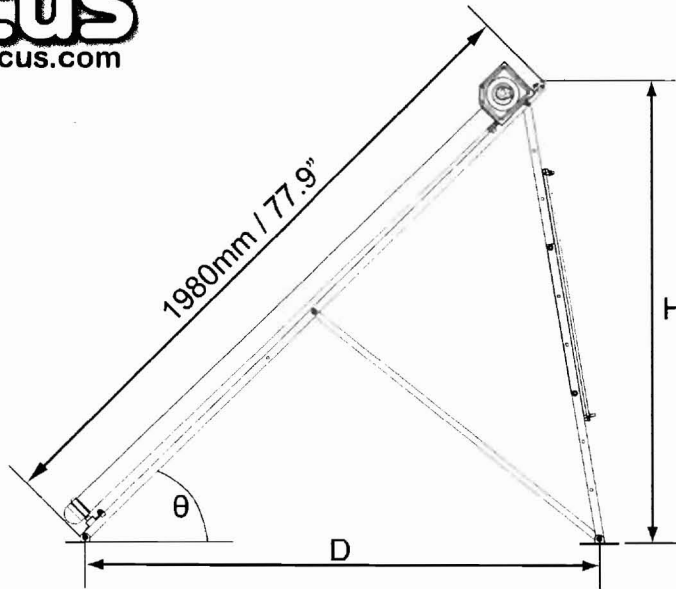


Notes:

1. Lag Bolt and washer should be stainless steel
2. Drill pilot hole for lag bolt 60-75% of lag shank diameter.
3. Seal all penetrations using manufacturer supplied Rubber pad and Geocell 2300 tripolymer sealant or equivalent



Apricus Solar Collector Gross Dimensions



Angle	Type	D	H
52°	High Angle (Round Foot)	1406mm / 55.4"	1539mm / 60.6"
45°		1565mm / 61.6"	1389mm / 54.7"
38°		1688mm / 66.5"	1231mm / 48.5"
33°		1792mm / 70.6"	1074mm / 42.3"
46°	High Angle (Roof Track)	1900mm / 74.8"	1436mm / 56.5"
42°		1900mm / 74.8"	1315mm / 51.8"
37°		1900mm / 74.8"	1186mm / 46.7"
33°		1900mm / 74.8"	1051mm / 41.4"
27°	Mid Angle (Round Feet) *	Variable	~ 911mm / 35.9"
27°	Mid Angle (Roof Track)	1900mm / 74.8"	911mm / 35.9"
13°	Low Angle (Round Feet) *	Variable	~ 447mm / 17.6"
13°	Low Angle (Roof Track)	1900mm / 74.8"	447mm / 17.6"

Size	S	W
10 tubes*	490mm / 19.29"	796mm / 31.3"
20 tubes*	1190mm / 46.85"	1496mm / 58.8"
22 tubes	665mm / 26.18"	1636mm / 64.4"
30 tubes	945mm / 37.2"	2196mm / 86.4"

* 10 & 20 tube collectors only have 2 sets of legs

Notes:

1. The frame should be aligned with the roof rafters where possible.
2. The front tracks can be adjusted left and right slightly to match roof structure
3. When possible position the front tracks behind tubes so they are hidden
4. Always refer the the installation manual regarding mounting guidelines, in particular regarding mounting strength and wind loading issues.
5. Seek engineer approval for non standard installations, or if at all in doubt of mounting strength or safety.

* Low and Mid angle frame kits do not have a diagonal brace. When using round feet the rear legs can be freely positioned, and therefore the angle and height are slightly variable.