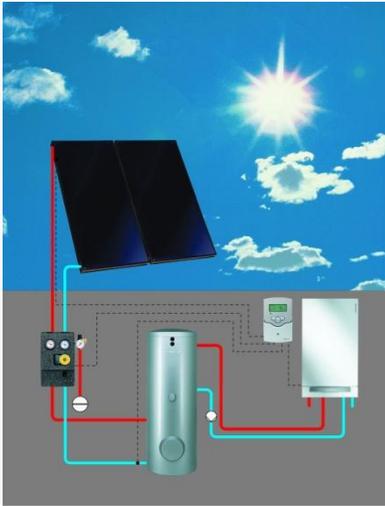


**City of Loveland  
Building Division  
500 E 3<sup>rd</sup> Street  
Suite 110  
Loveland, CO 80537  
(970) 962-2505**



## Solar Thermal Systems Checklist

Solar Thermal applications are reviewed by the City of Loveland.

**The following checklist shall be submitted with your plans. Each item on the list shall be marked to verify it is part of the submittal.** Incomplete information may result in plan rejection or delay in the review & issuance of your project.

### Plan Submittal Requirements

Please provide the following information:

A completed application form. Include the proposed thermal System. Indicate whether the system is roof mounted or ground mounted, close loop or drain back, and provide the heat transfer fluid.

2. A plan review fee deposit (the balance of fees are due at the time of permit issuance).
3. Two sets of plans .

### Site Plan - Equipment Outside a Building

- \_\_ Show the location of solar thermal panels.
- \_\_ Show the dimensions between equipment and structures.
- \_\_ Show the dimensions between equipment and property lines.

**Note:** Crushed rock/gravel over weed barrier may be installed under an array.

### Roof Mounted

- \_\_ Show on a plan view the existing roof and the proposed panel location.

### Floor Plan – Equipment Within the Structure

- \_\_ Show on a floor plan the location of all equipment within the structure. .
- \_\_ Label the use of the room in which the equipment is placed.
- \_\_ Show clearances of the equipment.

### Mechanical Design Requirements

Provide a one-line diagram that includes the following information:

- \_\_ Panel type and number of panels/Solar Rating and Certification Corporation (SRCC) sling.
- \_\_ Pipe materials.
- \_\_ Heat transfer fluid, pumps, controllers, back check valves, isolation valves.
- \_\_ Air admittance devices, expansion tanks, heat dumps, heat exchange tanks & storage tanks.

If the new system is integrated into an existing mechanical system, this system must also be shown on the one line diagram.

### Equipment Requirements

Provide the following general information and product listing sheets..

Panel, controller, pumps, storage and heat exchange tanks & rack system..

If the storage tank is site built, a Colorado licesned design professional design or listed assembly is required.

### **Roof Mounted Panels**

Provide the following information:

An Colorado licensed design professional's evaluation regarding the dead-load capability of the existing roof structure and its ability to support the added weight of the solar thermal system. The design professional must reference the required wind and snow load for the site. If the panels project above the ridge line on the roof, this must also be part of the design professionals evaluation.

For flat roof installations provide method of repair for roof penetrations.

### **Pole or Ground Mounted Panels**

Provide the following information:

Site Plan Review Waiver approval (as of January 1, 2011).

Site Plan to include the following:

Location of panel(s) on property.

Dimensions from panel(s) to property lines.

Dimensions from panel(s) to other structures on the property and property easements.

Colorado licensed design professional footing design.

Attachment details – listed and tested connectors or design professionals design

If you have any questions, feel free to contact the City of Loveland Building Division at (970) 962-2505.