

305.3.2 Structural Support and Attachment. Racking and racking supports shall be positively attached to the structural components through the use of screws, bolts, j-bolts, or other approved means in accordance with manufacturer's specifications or be designed in accordance with the OSSC. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal. Racking and racking supports shall be mounted to structural components and shall not be attached to wall or roof coverings, trim or structural sheathing as a means of structural support. **Updated 3/1/10**

Exception:

1. Attachment to standing seam metal roofs w/ connectors per mfr installation instructions
2. Certified non-penetrating or minimally penetrating systems shall be permitted when installed in accordance with the manufacturer's installation instructions.
3. Blocking per Fig 2

305.4 Prescriptive Installations. Roof installations on conventional light-frame construction which complies with this section shall qualify as prescriptive and shall not require an engineered design if all of the following criteria are met: 1. Roof structure: The supporting roof framing shall be conventional light framed wood construction with pre-engineered trusses or roof framing members at a spacing of 24 (610 mm) inch on center maximum that comply with the applicable allowable span in Table 305.4.1 for the specific loads including snow loads not exceeding 50 psf and wind loads that do not exceed 100 MPH or 110 MPH in exposure B. Exception: Roof framing in compliance with the applicable allowable span in Table 305.4.2 for the specific loads including snow loads not exceeding 70 psf and wind exposure is limited to exposure A, B or C shall satisfy the requirements of this section when the PV system is installed on; 1.1 Detached one and two family dwellings and townhouses classified as Group R-3, and Group U Occupancies; and 1.2 Residences used for family daycare or foster care in accordance with ORS Chapters 418, 443 and 657A; and 1.3 Detached Congregate residences (each accommodating 10 persons or less) and detached lodging houses containing not more than five guest rooms.

Updated 3/1/10

2. Roof materials. Roofing material shall be metal, single layer wood shingle or shake, or not more than two layers of composition shingle.

3. Loading: Modules shall either be directly attached to the roof framing or mounted to continuous rails that are attached directly to the roof framing. These attachments must be anchored to roof framing at a spacing no greater than 48 inches (1219 mm) on center maximum in any direction where snow loads do not exceed 25 psf and 24 inches on center maximum in any direction where snow loads exceed 25 psf. Installation shall comply with Figure 305.4(1) or 305.4(2). The combined weight of the PV modules and racking shall not exceed 4.5 pounds per square foot (xxx kPa).

Exception:

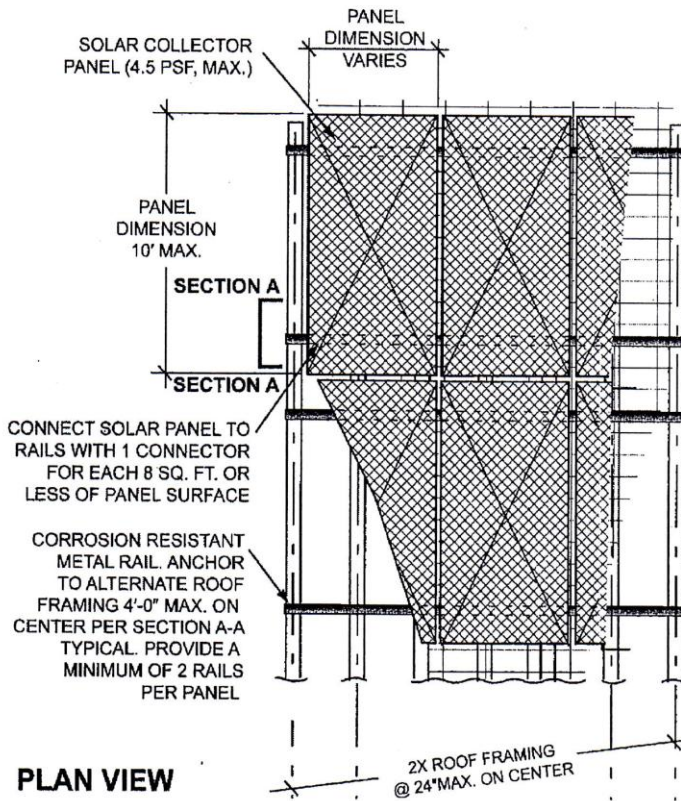
1. Anchorage of solar collectors to standing seam metal roofs shall utilize S-5! clamps. Systems utilizing S-5! clamps to standing seam metal roofing meeting the prescriptive roofing requirements outlined below may be designed based upon an allowable clip uplift capacity of 115 pounds for clips spaced at 48-inches on center and greater. Where clip spacing is less than 48-inches on center, the allowable clip capacity shall be reduced to 75 pounds. In no case shall clip spacing be less than 24-inches. Spacing of clips along a seam shall not exceed 60-inches. See attached Figures #5 and #6.

- a. Roofing panels shall be a minimum of 26 gage steel,
- b. Roofing panels shall be a maximum of 18-inches in width,
- c. Roofing shall be attached with a minimum of #10 screws at 24-inches on center,
- d. Roofing shall be installed over minimum ½-inch nominal wood structural panels attached to framing with 8d nails at 6-inches on center at panel edges and 12-inches on center field nailing.

2. Certified non-penetrating or minimally penetrating systems shall be permitted when installed in accordance with the manufacturer's installation instructions.

3. Blocking per Fig 2

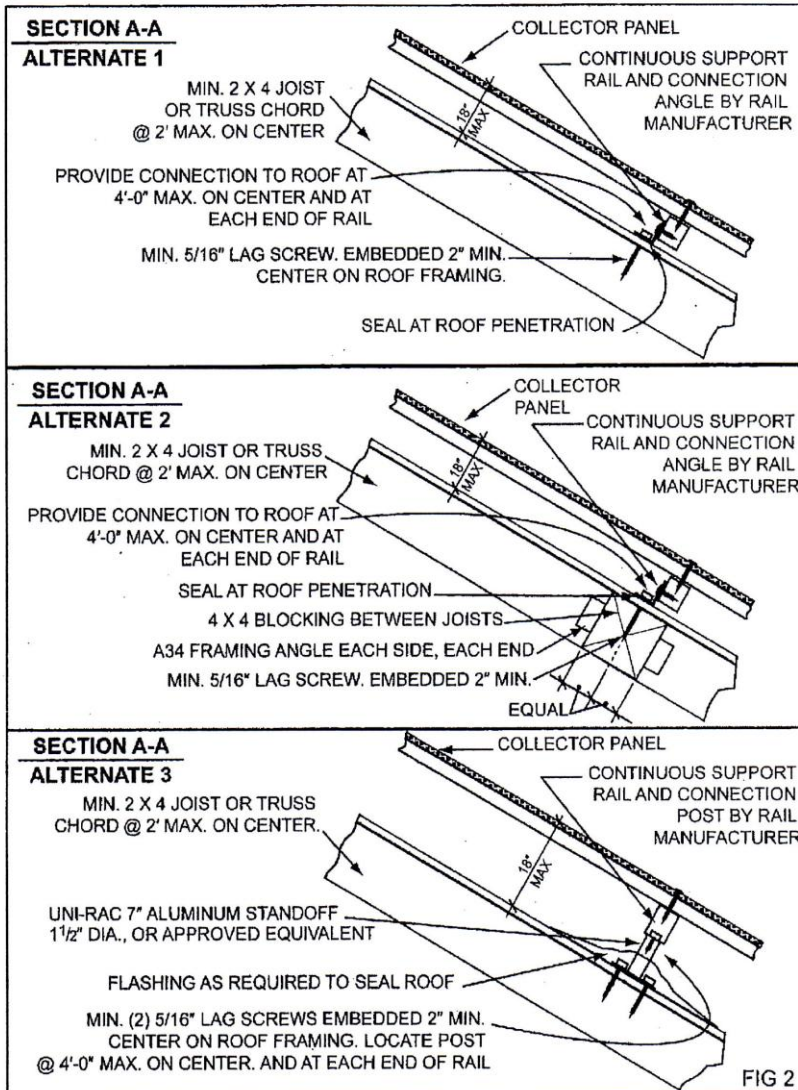
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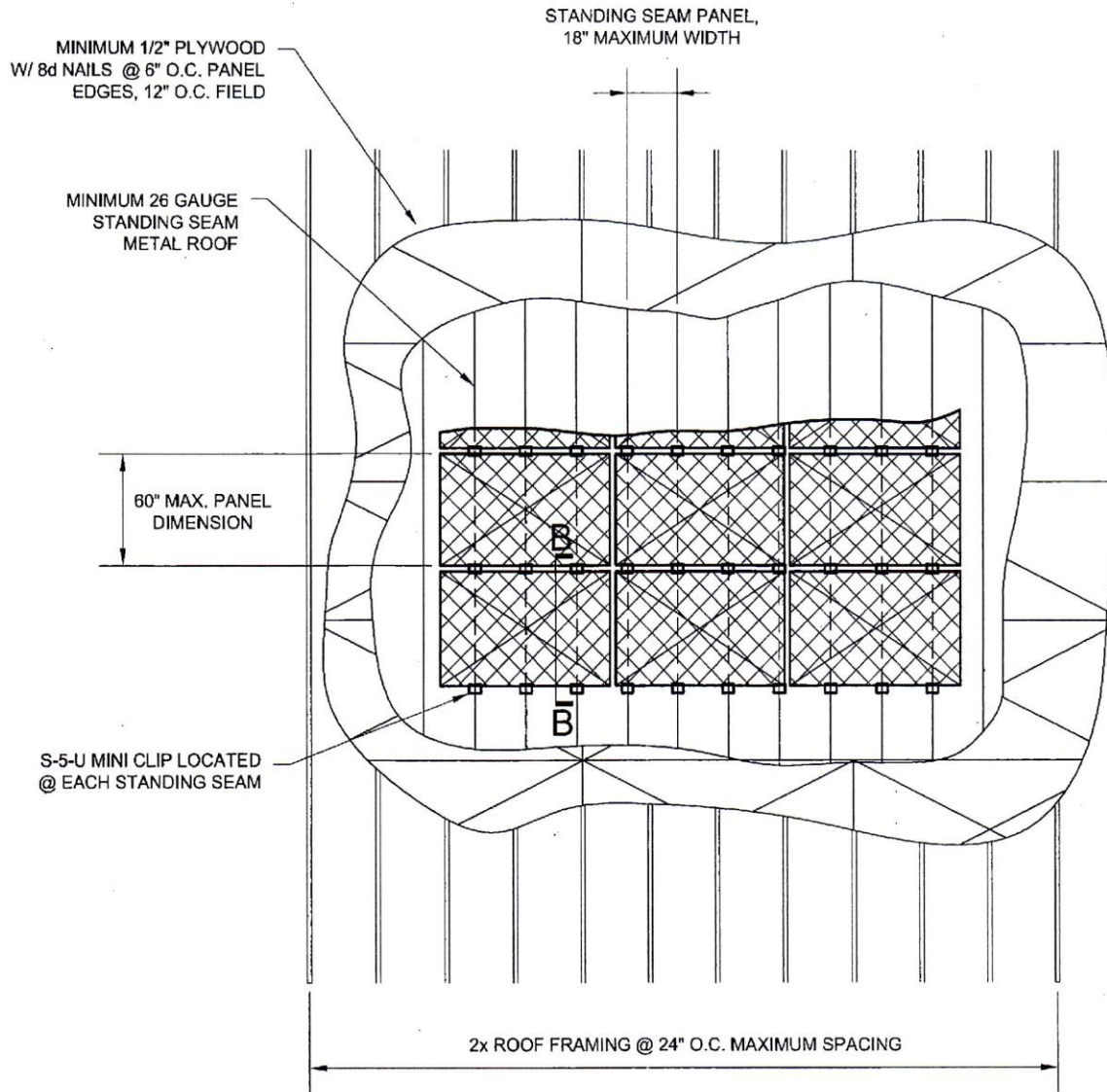


PLAN VIEW

FIG. 1

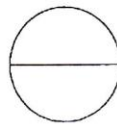
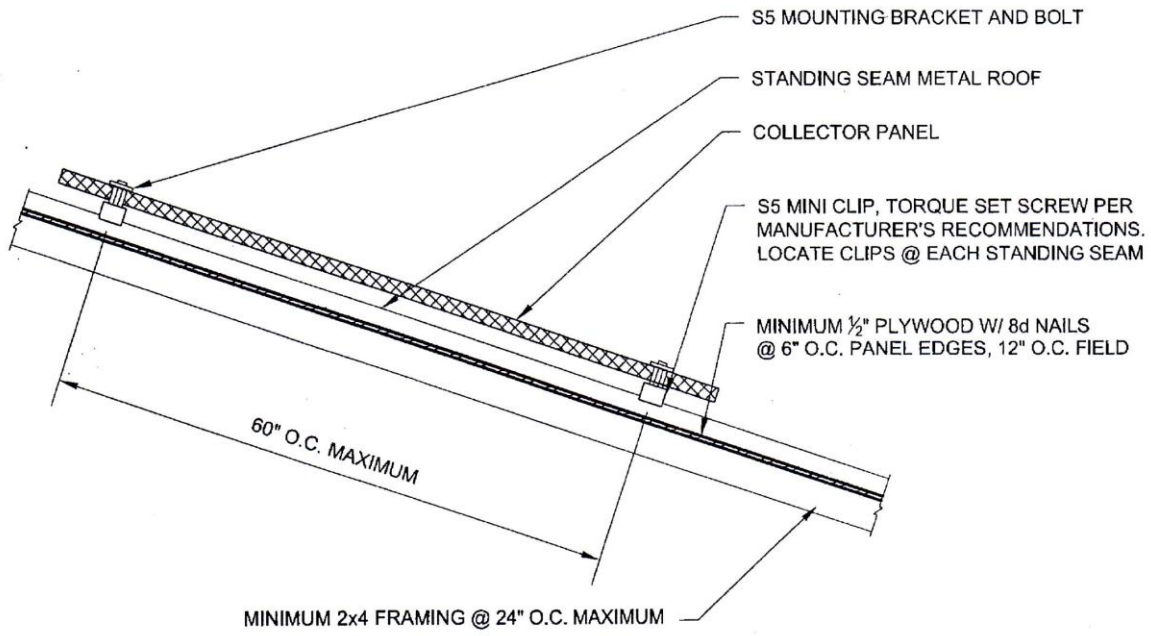
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PLAN VIEW
FIGURE 5

N.T.S



SECTION B-B

FIGURE 6

N.T.S