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Installing Photovoltaic Equipment on Steep-Slope Roofs.

Installing photovoltaic systems on steep slope roofs is becoming more common, and the trend is increasing as additional incentives become available. Although the majority of ARCA's focus is on industrial-commercial-institutional low slope roofing we are often asked about installing photovoltaic arrays on asphalt shingle and architectural standing seam steep slope roofs. To ensure access and clearance for proper maintenance, drainage as well as emergency responder safety the ARCA Technical Committee provides the following recommendations when installing photovoltaic equipment on steep slope roofs.

1. The entire roof assembly shall be designed to support the additional structural loads from a roof mounted photovoltaic assembly.
2. The roof surface under the photovoltaic installation shall be unobstructed; clear of roof penetrations such as chimneys, roof vents and skylights.
3. Roof access / ladder locations should not be located directly in front of doors and windows.
4. For each roof plane (gable or hip) that has photovoltaic panels, there shall be a minimum of two (2) 915mm (36") wide access path from eave to ridge.
5. No photovoltaic equipment or fasteners shall be placed closer than 450mm (18") from the centerline of the valley.
6. No photovoltaic equipment shall be placed within 915mm (36") of the top of the ridge.

All solar photovoltaic systems must be installed in accordance with Section 64 — Renewable energy systems, energy production of the Canadian Electrical Code. This includes standards on marking, disconnecting, wiring and grounding.

In addition to these measures, the lifecycle of the roof covering should be taken into account when planning and installing photovoltaic equipment.

Personal safety while working in the vicinity of roof mounted photovoltaic equipment continues to be a priority. Refer to ARCA Advisory Bulletin AB-2017-06 for details.