

7511.1204 SECTION 1204, SOLAR PHOTOVOLTAIC POWER SYSTEMS.

Subpart 1. **IFC section 1204.1** IFC section 1204.1 is amended and subsections are added to read:

1204.1 General. Solar energy systems shall be installed in accordance with Sections 1204.1 through 1204.6 and the Building Code.

Exception: Buildings regulated by Minnesota Rules, chapter 1309, the Minnesota Residential Code.

1204.1.1 Minnesota Electrical Code. The electrical portion of solar PV systems shall be installed in accordance with the Minnesota Electrical Code.

1204.1.2 Roof access points. Roof access points shall meet all the following criteria.

1. Roof access points shall be located where fire departments have ground access.
2. Roof access points shall be located in areas that do not require the placement of fire department ground ladders over openings such as windows or doors.
3. Roof access points shall be located at strong points of building construction capable of supporting emergency responders.
4. Roof access points shall be in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.
5. Each roof access point shall be provided with a landing on the roof side not less than 6 feet in each direction. The landing shall be free and clear of obstructions such as vent pipes, conduit, and mechanical and electrical equipment.
6. Roof access point landings on roofs with slopes greater than 2 units vertical in 12 units horizontal (2:12) shall be positioned with direct access to a pathway to ridge.
7. Each solar array or grouping of arrays shall have not less than two roof access points spaced not closer than 1/3 the diagonal dimension of the array or arrays served.

Subp. 2. **IFC section 1204.2.** IFC section 1204.2 and its subsections are entirely deleted and replaced with the following:

1204.2 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 1204.2.1 through 1204.3.3. Pathways shall be over areas capable of supporting firefighters accessing the roof. Pathways shall be located in areas without obstructions such as vent pipes, conduit, and mechanical and electrical equipment.

Exceptions:

1. Detached, nonhabitable Group U structures including, but not limited to, detached garages serving Group R-3 buildings, parking shade structures, carports, solar trellises, and similar structures.

2. Roof access, pathways, and spacing requirements need not be provided where the fire code official has determined that rooftop operations will not be employed.

1204.2.1 Solar photovoltaic system for roof slopes greater than 2 units vertical in 12 units horizontal (2:12). Solar photovoltaic systems for buildings with roof slopes greater than 2 units vertical in 12 units horizontal (2:12) shall comply with Sections 1204.2.1.1 through 1204.2.1.3.

1204.2.1.1 Pathways to ridge. Not fewer than two 36-inch wide pathways on separate roof planes, from the lowest roof edge to ridge, shall be provided on all buildings. Pathways shall be provided at intervals not greater than 150 feet throughout the length and width of the roof. Not fewer than one pathway shall be provided on the street or driveway side, or fire-department-access side, of the roof. For each roof plane with a photovoltaic array, not fewer than one 36-inch wide pathway from lowest roof edge to ridge shall be provided on the same roof plane as the photovoltaic array, on an adjacent roof plane, or straddling the same and adjacent roof planes.

1204.2.1.2 Setbacks at ridge. For photovoltaic arrays occupying 33 percent or less of the plan view total roof area, a setback of not less than 18 inches (457 mm) wide is required on both sides of a horizontal ridge. For photovoltaic arrays occupying more than 33 percent of the plan view total roof area, a setback of not less than 36 inches (914 mm) wide is required on both sides of a horizontal ridge.

1204.2.1.3 Alternative setbacks at ridge. Where an automatic sprinkler system is installed within the building, setbacks at the ridge shall conform to one of the following criteria:

1. For photovoltaic arrays occupying 66 percent or less of the plan view total roof area, a setback of not less than 18 inches (457 mm) wide is required on both sides of a horizontal ridge.
2. For photovoltaic arrays occupying more than 66 percent of the plan view total roof area, a setback of not less than 36 inches (914 mm) wide is required on both sides of a horizontal ridge.

1204.2.2 Emergency escape and rescue openings. Panels and modules installed on Group R buildings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A pathway of not less than 36 inches (914 mm) wide shall be provided from the roof edge to the emergency escape and rescue opening.

Subp. 3. **IFC section 1204.3.** IFC section 1204.3 and its subsections are entirely deleted and replaced with the following:

1204.3 Solar photovoltaic systems for roofs with slopes of 2 units vertical in 12 units horizontal or less. Access to systems for buildings with roofs with slopes of 2 units vertical in 12 units horizontal (2:12) or less shall be provided in accordance with Sections 1204.3.1 through 1204.3.3.

1204.3.1 Perimeter pathways. There shall be a minimum 6-foot wide (1,829 mm) clear perimeter around the edges of the roof.

Exception: Where either axis of the building is 250 feet (76,220 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum width of 4 feet (1,219 mm).

1204.3.2 Interior pathways. Interior pathways shall be provided between array sections to meet the following requirements:

1. Pathways shall be provided at intervals not greater than 150 feet (45,720 mm) throughout the length and width of the roof.
2. A pathway of not less than 4 feet (1,219 mm) wide in a straight line to roof standpipes or ventilation hatches.
3. A pathway not less than 4 feet (1,219 mm) wide around roof access hatches, with not fewer than one such pathway to a parapet or roof edge.
4. A pathway not less than 4 feet (1,219 mm) wide from the perimeter pathway to an emergency escape and rescue opening located above the roof.

1204.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Where non-gravity-operated smoke and heat vents occur, a pathway not less than 4 feet (1,219 mm) wide shall be provided bordering all sides.
2. Smoke ventilation options between array sections shall be one of the following:
 - 2.1 A pathway not less than 8 feet (2,438 mm) wide.
 - 2.2 Where gravity-operated dropout smoke and heat vents occur, a pathway not less than 4 feet (1,219 mm) wide on at least one side.
 - 2.3 A pathway not less than 4 feet (1,219 mm) wide bordering 4-foot by 8-foot (1,219 mm by 2,438 mm) venting cutouts every 20 feet (6,096 mm) on alternating sides of the pathway.

Subp. 4. **IFC section 1204.6** IFC section 1204 is amended by adding a section to read:

1204.6 Maintenance. Equipment labeling, access, pathways, and setbacks for solar photovoltaic power systems shall be continuously maintained. Existing systems shall be maintained in accordance with the code in effect at the time of installation.

Statutory Authority: *MS s 326B.02*

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