



Roof-Mounted Solar Arrays- Access Requirements for Firefighting

Per PEI Fire Prevention Act- NFPA 1 Fire Code (2021 Edition)

For Buildings other than One & Two- Family Dwellings and Townhouses (inc Rowhouses)

11.12.3 Roof Access and Ventilation

11.12.3.1 General

11.12.3.1.1

Access pathways, setbacks and spacing requirements shall be required to provide emergency access to the roof, provide pathways to specific areas of the roof, provide for smoke ventilation opportunity areas, and to provide emergency egress from the roof.

11.12.3.1.2

The AHJ shall be permitted to reduce or modify roof access based upon fire department ventilation procedures or alternate methods that ensure adequate fire department access, pathways, and smoke ventilation.

11.12.3.3 Buildings other than One & Two-Family Dwellings and Townhouses

11.12.3.3.1.1 Roof Access

Photovoltaic systems installed on any building other than one and two-family dwellings and townhouses shall provide roof access in accordance with 11.12.3.3.

11.12.3.3.1.2

Where the AHJ determines that the roof configuration is similar to a one and two-family dwelling or townhouse, the AHJ shall allow the roof access requirements of 11.12.3.

11.12.3.3.1.3

Detached, nonhabitable structures, including, but not limited to, parking shade structures, carports, solar trellises, and similar structures shall not be required to provide roof access.

11.12.3.3.2 Perimeter Pathways

11.12.3.3.2.1

A minimum 48 in. (1219mm) wide perimeter pathway shall be provided around the edges of the roof for buildings with a length or width of 250ft (76.2m) or less along either axis.

11.12.3.3.2.2

A minimum 6ft (1829mm) wide perimeter pathway shall be provided around the edges of the roof for buildings having length or width greater than 250ft (76.2m) along either axis.

11.12.3.3.3 Other Pathways

Pathways shall be over areas capable of supporting fire fighters accessing the roof and shall be provided between array sections as follows:

- 1) Pathways shall be provided in a straight line 48 in. (1219mm) or greater in width to all ventilation hatches and roof standpipes.
- 2) Pathways shall be provided 48 in. (1219mm) or greater in width around roof access hatches with at least one 48 in. (1219mm) or greater in width pathway to the parapet or roof edge.
- 3) Pathways shall be provided at intervals no greater than 150ft (46m) throughout the length and width of the roof.



11.12.3.3.4 Smoke Ventilation

11.12.3.3.4.1

A minimum 48 in. wide pathway shall be provided bordering all sides on nongravity-operated smoke and heat vents and bordering at least one side of gravity-operated smoke and heat vents.

11.12.3.3.4.2

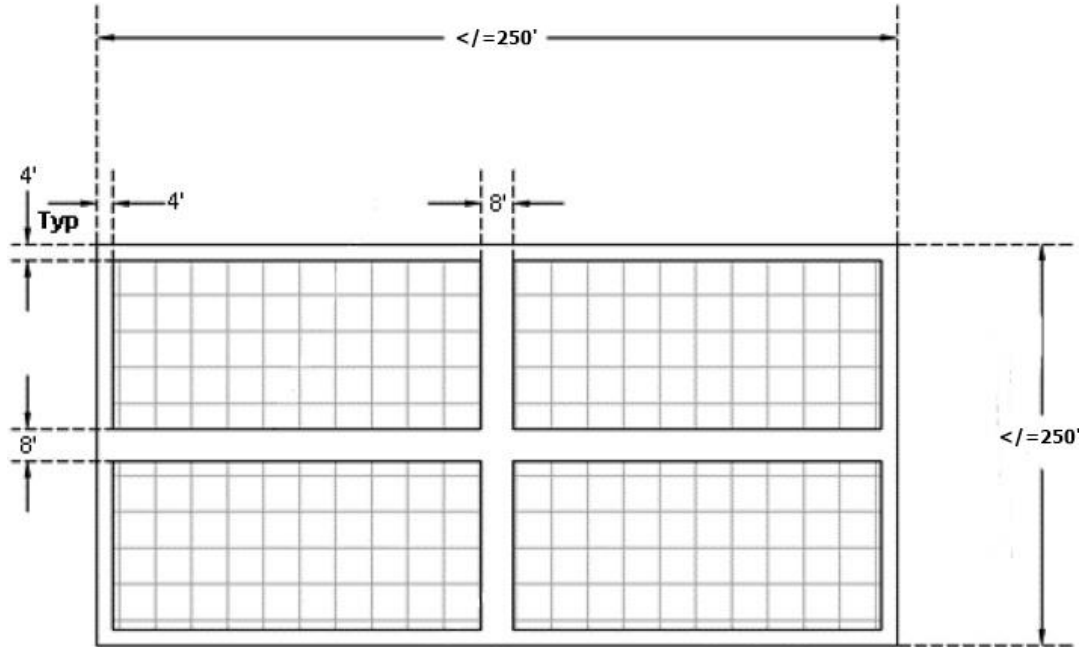
Ventilation options between array sections shall be at least one of the following:

- 1) A pathway 96 in. (2438mm) or greater in width.
- 2) A pathway 48 in. (1219mm) or greater in width and bordering on existing roof skylights at intervals no greater than 150ft throughout the length and width of the roof.
- 3) A pathway 48 in. (1219mm) or greater in width and bordering 48 in. (1219mm) by 96 in. (2438mm) with venting cutouts options every 20ft (6096mm).

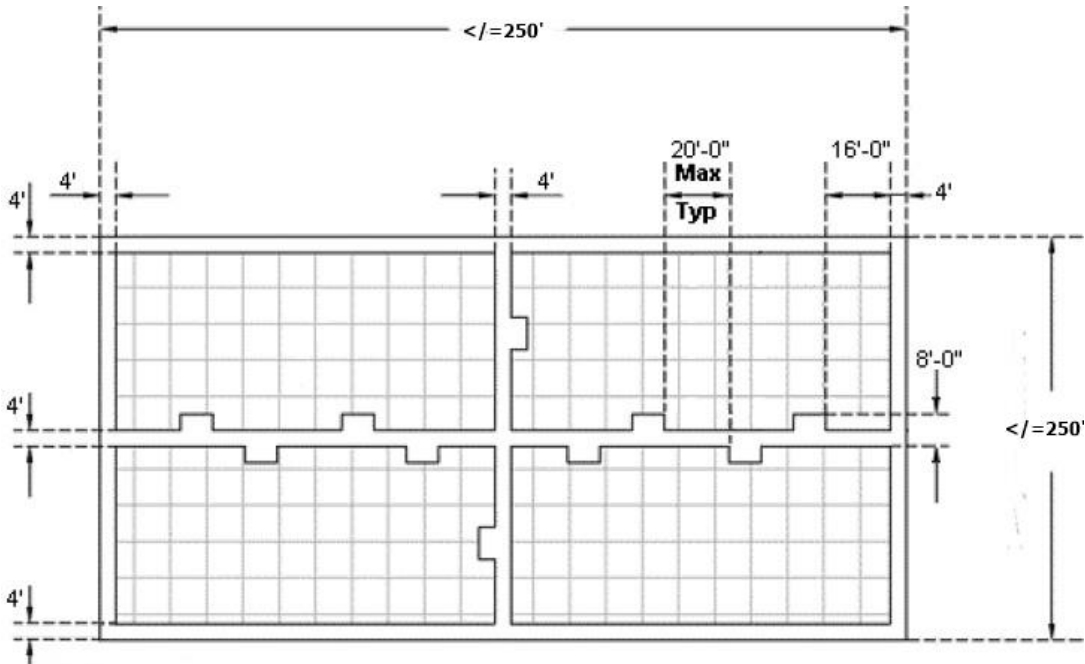
11.12.2.2.2.3.4 Minimizing Obstructions in Pathways

Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment to reduce trip hazards and maximize ventilation opportunities.

Ventilation pathway options for buildings with roofs having a length or width less than 250ft.

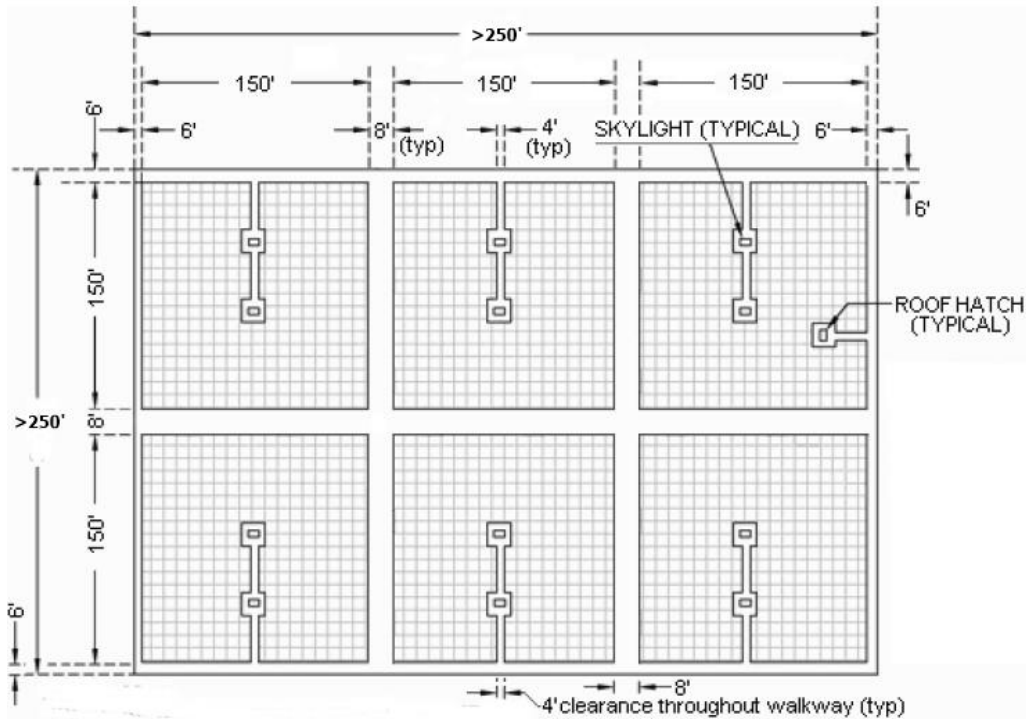


Solar Array with 8' Walkways

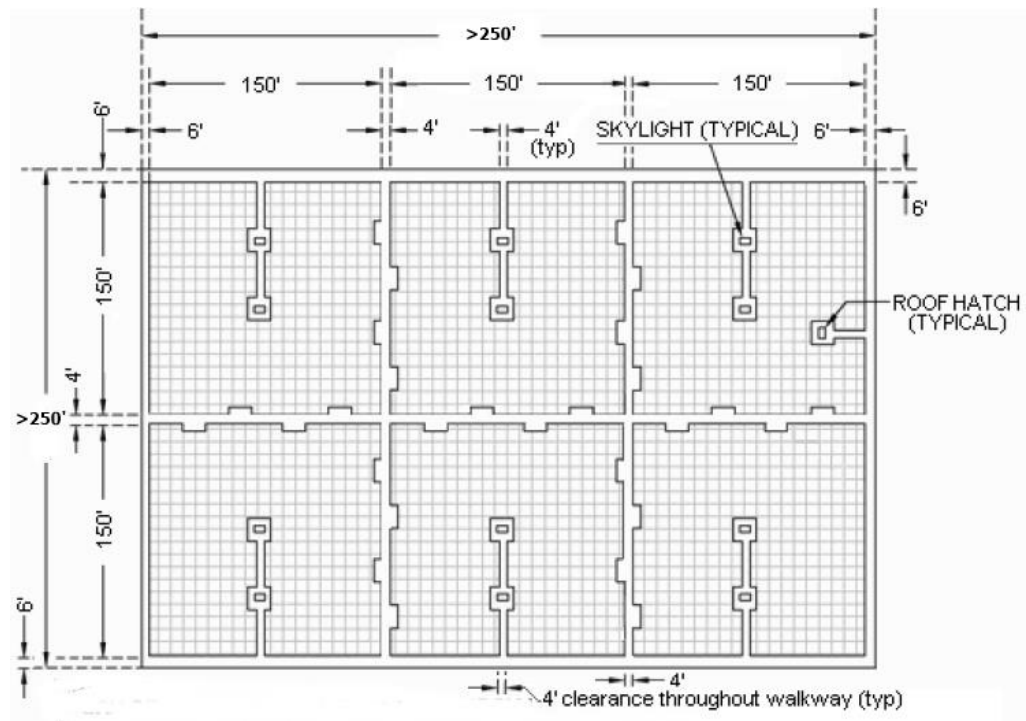


Solar Array with 4' Walkways and 4'x 8' Venting Locations Every 20'

Ventilation pathway options for buildings with roofs having a length or width greater than 250ft.



Solar Array with 8' Walkways with Skylight and Hatch Access



Solar Array with 4' Walkways and 4'x 8' Venting Locations Every 20'