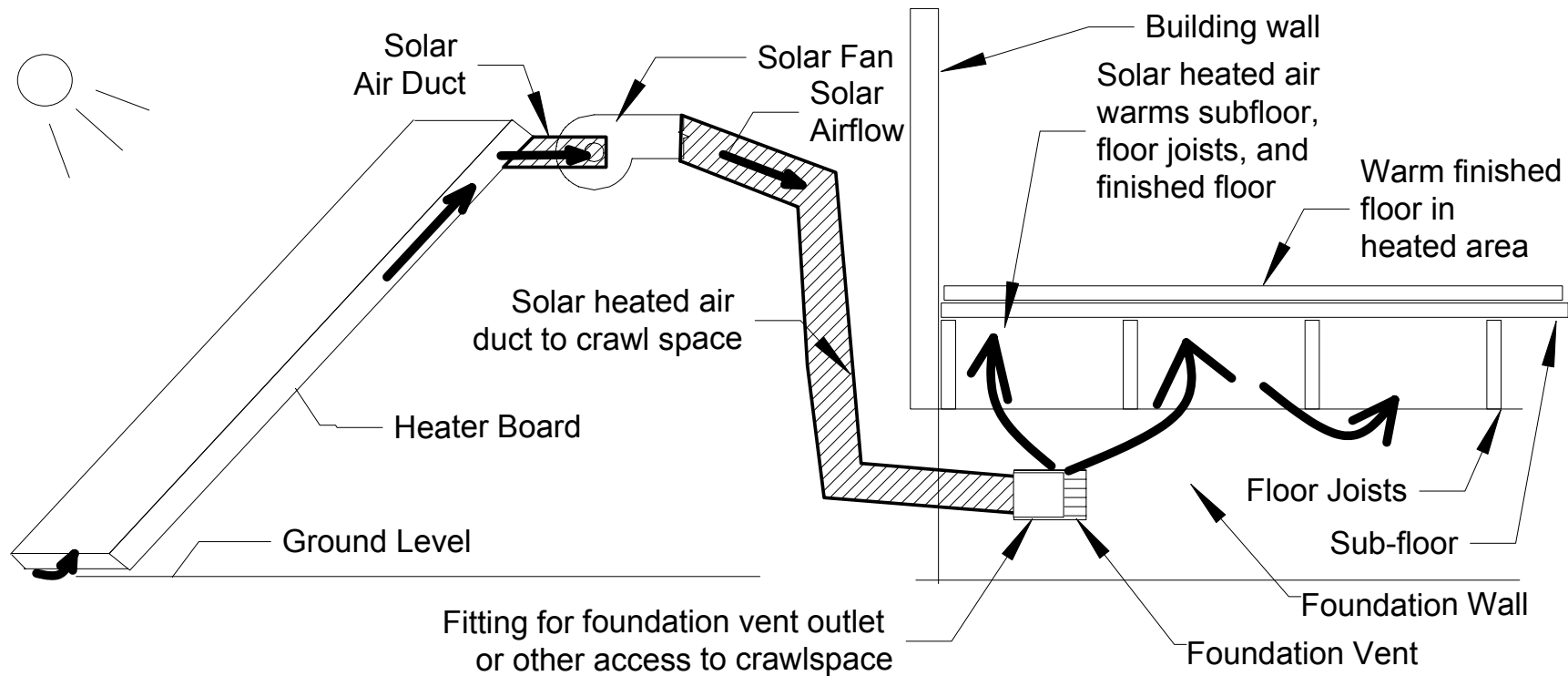


Air-Radiant Floor Heating, Mechanical Schematic



This stylized illustration of a solar Air Radiant floor heating system for a crawlspace or unfinished basement, shows the major components and intended operation. Numerous variations are possible,

Operation:

During the heating season, warm solar heated air is blown into the crawl space or unfinished basement. The air can be blown into the crawl space through foundation vents or through openings made in stone foundation or holes cut in metal or wood skirts or foundation walls.

The heated air rises up to the top of the space and comes in contact with the floor joists and sub floor.

The heated air heats the joists and sub floor and the heat is conducted through the floor to the finished floor.

The warm finished floor provides heat to the first floor and reduces the cold temperatures of the air normally found near the floor.

The result is a room with a more even temperature from floor to ceiling and with more comfortable floor temperatures.

Solar fans can be located inside the crawl space, out of the weather.

Warm exhaust air for the crawl space can be sent across a heat pump outdoor coil to boost heat pump performance.

The large mass of the joists and sub floor, approximately 5,000 pounds per 1,000 sqft, acts as a heated thermal mass, slowly releasing it heat after the solar air heating system has shut down for the day.

TITLE	REV
Heater Board Air-Radiant Floor Heating Schematic	
DWG NO	SHEET
SCALE	DATE

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