



Solar setback standards were created to help preserve the availability of solar energy to dwellings on R-1 and R-2 zoned lots.

Land Use Code Requirements

Eugene Code, Chapter 9, Section 9.2795

When do the solar setback standards apply?

These standards apply to all structures on R-1 and R-2 zoned lots, when the lot is 4,000 square feet or greater and has a minimum north-south lot dimension of 75 feet.

What is the north-south lot dimension?

The north-south lot dimension is the length of a line beginning at the midpoint of the northern lot line and extending perpendicularly until it intersects the southerly lot line. (See page 2)

Are there any exemptions to the standards?

A building is exempt from the standards when any of the following conditions exist:

- The lot on which the building is located has an average slope of 20 percent or more in a direction greater than 45 degrees east or west of true north.
- The building will shade an area that is already shaded by an existing building or structure, a topographic feature, or coniferous trees or broadleaf evergreens that will remain after development of the site.
- The building will shade a non-developable area such as a street or alley.
- The building will shade the wall of an unheated space, such as a garage (not including solar greenhouses or similar structures) or the wall of a non-residential structure.
- The building will shade no more than 20% of a south wall of an existing habitable dwelling. (See page 2)

- The owner of a dwelling on the abutting property to the north grants an exemption to the solar setback requirements, on a form provided by the City.

How do I determine the solar setback?

The solar setback of the shade point shall be greater or equal to the following formula:

In R-1 zones:

$$SSB = (2.5 \times SPH) + (N \text{ divided by } 2) - 82.5$$

In R-2 zones:

$$SSB = (2.5 \times SPH) + (N \text{ divided by } 2) - 95$$

SSB = Solar setback. The solar setback is the shortest horizontal distance from the northern lot line to the shade point of a building.

SPH = Shade point height. The shade point height is the part of the building that cast the longest shadow onto the adjacent northern lot(s) when the sun is at a specific location in the sky.

- If a structure has a roof oriented within 45 degrees of the true east-west line with a pitch that is flatter than 5 feet (vertical) in 12 feet (horizontal), the shade point will be the eave of the roof.
- If a structure has a roof oriented within 45 degrees of the true east-west line with a pitch that is 5 feet (vertical) in 12 feet (horizontal) or steeper, the shade point will be the peak of the roof. In this case, reduce this dimension by 3 feet if the shade point is a ridgeline between 45 degrees east or west of true north.
- The height of the shade point is measured from the shade point to lowest grade directly below the shade point.

N = North-south lot dimension. Maximum allowable "N" for purposes of calculating the solar setback shall be 90 feet.

Note: This document should not be used as a substitute for codes and regulations. The applicant is responsible for compliance with all code and rule requirements, whether or not described in this document.

