

Displaying a Structure's Shadow in Floor Plan View

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The information in this article applies to:

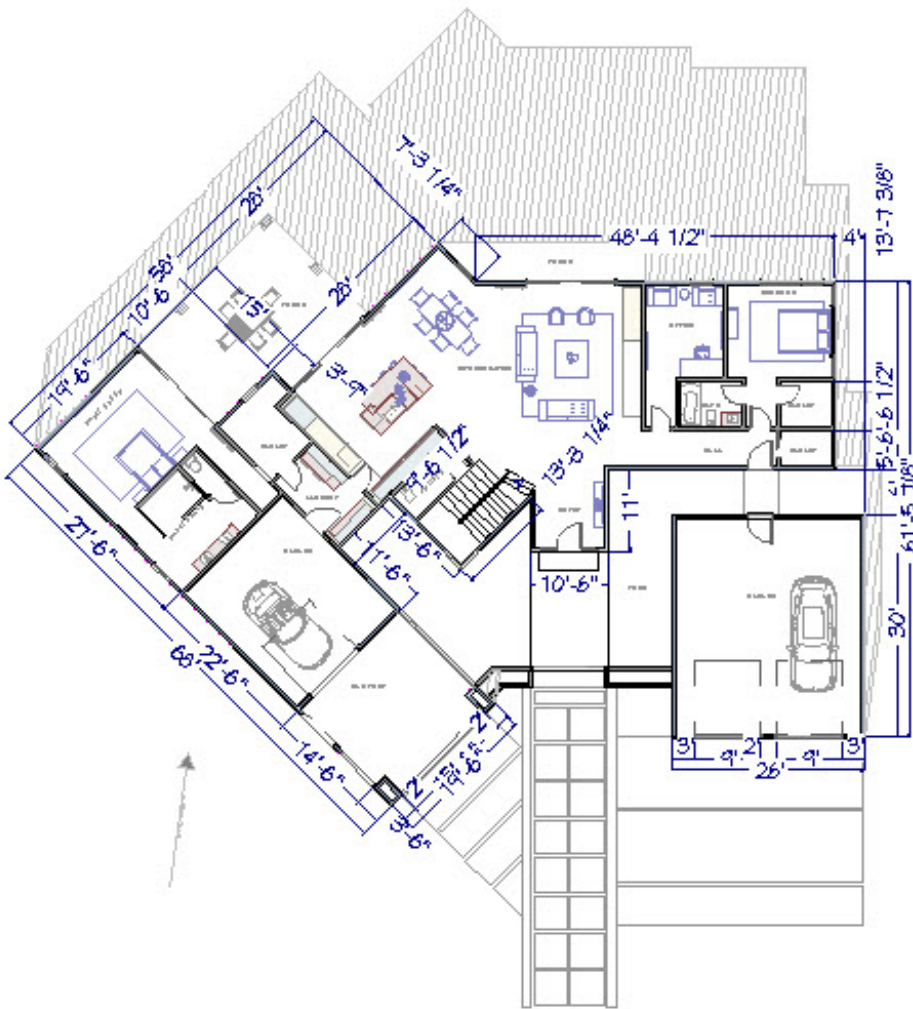


QUESTION


How can I show where the shadows fall in a floor plan view?

ANSWER


By placing a Sun Angle line, you can create a shadow to be displayed by a building both on floor plan and in rendered views. The length and angle of the shadow can be made to simulate how a real shadow might be cast by specifying the location, date, and time in the Sun Angle's specifications.



A Sun Angle arrow is a marker that displays in floor plan view and indicates the angle of the sun at a specific time and location on the Earth. Multiple Sun Angles can be created in floor plan view, each with different specifications.

Sun Angles are parallel light sources. Their location and direction are defined per plan. Place a **North Pointer**  to accurately define the Sun's location relative to the model.

To create a Sun Angle and display a shadow in plan view

1. Since Sun Angles can only be created on either the Foundation or 1st Floor, be sure that you are on one of these floors in plan view.
2. Select **CAD> Lines> Sun Angle**  and click in the drawing area where you want the Sun Angle to be displayed.
3. In the **Sun Angle Specification** dialog that appears, specify the Sun Angle's information.

- Specify the **Latitude** and **Longitude** of the location where the building is or will be built.
- Specify the **Date**, **Time**, and **Time Zone** to set the appropriate location of the sun in the sky.
- Specify the **Length of Plan Symbol** to change the size of the Sun Angle arrow on the plan.
- Check **Show Date on Sun Angle** to display the date and time next to the Sun Angle arrow.
- Check **Auto Rebuild Terrain** to rebuild the terrain automatically whenever you create a sun shadow.
- Click **Make Shadow** or **Delete Shadow** to generate or remove the shadow from the plan view.

4. Click **OK** to close the **Sun Angle Specification** dialog.


If no Terrain Perimeter has been created, shadows falls on an imaginary plane at a height of 0", the default height for the first floor


If a Terrain Perimeter exists, shadows are modified to indicate where the real shadow would fall on the actual terrain.

Multiple Sun Angles can be placed in the same plan. This allows the simultaneous display of shadows cast at different times in floor plan view, however, only one will display in camera views.

You can specify different line colors and/or fill styles for shadows cast by multiple Sun Angles in the Sun Angle Specification dialog.


When rendering an exterior view, the program looks for any Sun Angles that are turned on in order to determine lighting and shadow generation; a Sun Angle's light data and shadow can be toggled in the Sun Angle Specification dialog. If a Sun Angle does not exist, the programs uses the Default Sun. For more information on adjusting the Default Sun, please see the [Related Articles](#) section below.

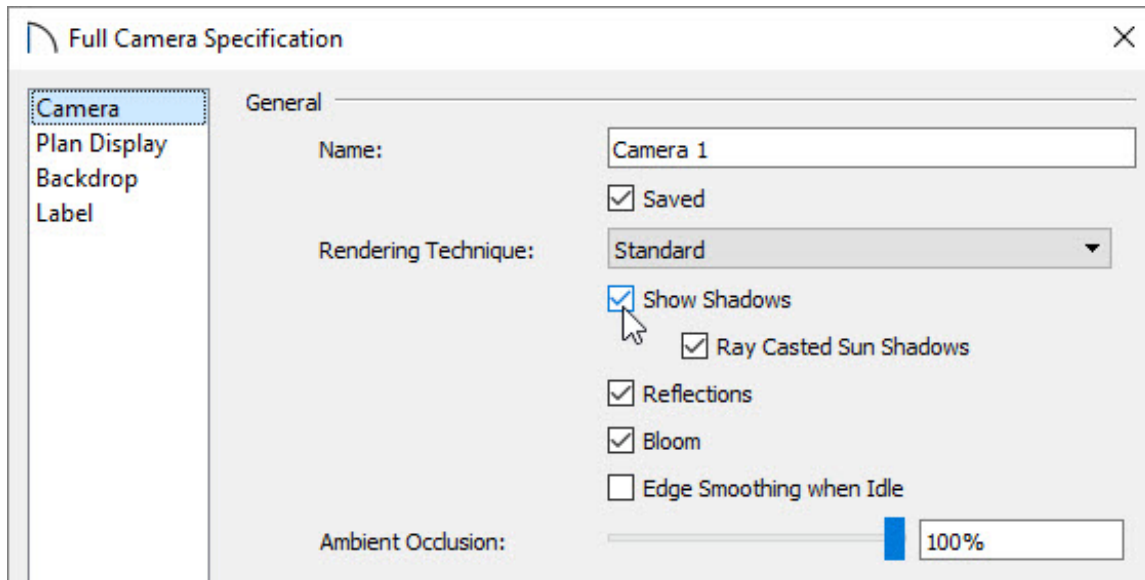
The sunlight can be toggled on and off by using **3D> Lighting> Toggle Sunlight** 


3D> Lighting> Adjust Sunlight  controls the display of either the Default Sun or the current Sun Angle as a source of light.

Once a Sun Angle has been created, shadows can be displayed.

To display shadows created by a Sun Angle in camera views

1. Select the camera in plan view and select the **Open Object**  edit button to open the **Camera Specification** dialog. On the CAMERA panel, check **Show Shadows**.



Shadows can also be turned on while within an active camera view by navigating to **3D> Edit Active Camera**  and checking the same **Show Shadows** box mentioned above.

For more information on displaying shadows in camera views, please see the [Related Articles](#) section below.

2. Click **OK**.

If shadows are not being displayed, select the appropriate Sun Angle, click the Open Object edit button, and on the Lighting Data panel of the Sun Angle Specification dialog, make sure that Casts Shadows is checked.

Related Articles

[📄 Adding Shadows to a Camera View \(/support/article/KB-00230/adding-shadows-to-a-camera-view.html\)](/support/article/KB-00230/adding-shadows-to-a-camera-view.html)

[📄 Adjusting the Default Sunlight \(/support/article/KB-00922/adjusting-the-default-sunlight.html\)](/support/article/KB-00922/adjusting-the-default-sunlight.html)

