

Creating a Pole Barn Structure

Reference Number: **KB-01081**

Last Modified: **July 20, 2021**

The information in this article applies to:



Question




I would like to design a pole barn to use as a carport or pavilion. How can I do this in Home Designer?

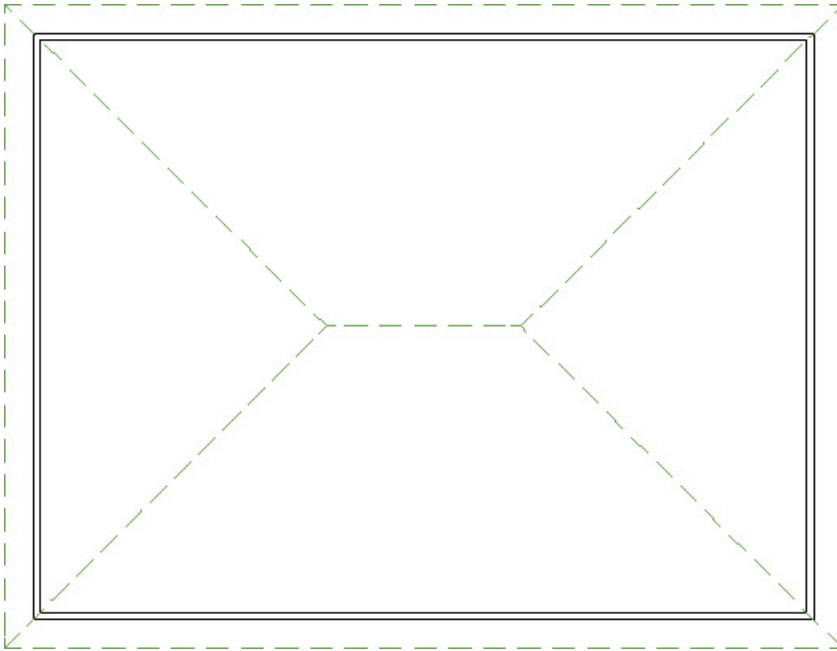


ANSWER



In Home Designer, a simple pole structure can be easily created using Railings. In Home Designer Pro, you can also use the dedicated framing tools such as the Post, Beam, and Truss tools to accomplish this task.

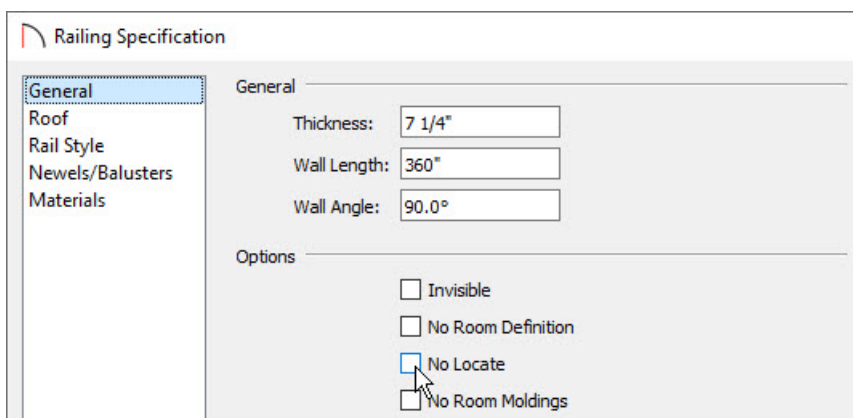
To create the building perimeter

1. **Open**  the Home Designer plan in which you would like to create a pole structure or select **File > New Plan**  from the menu to open a new, blank plan.
2. Select **Build > Railing and Deck > Straight Railing**  from the menu, then click and drag in the drawing area to draw an enclosed rectangular structure.



In this example, a 30' x 40' structure is drawn.

3. Using the **Select Objects**  tool, click on one of the railings to select it, then click the **Open Object**  edit tool.
4. On the **GENERAL** panel of the **Railing Specification** dialog that displays:

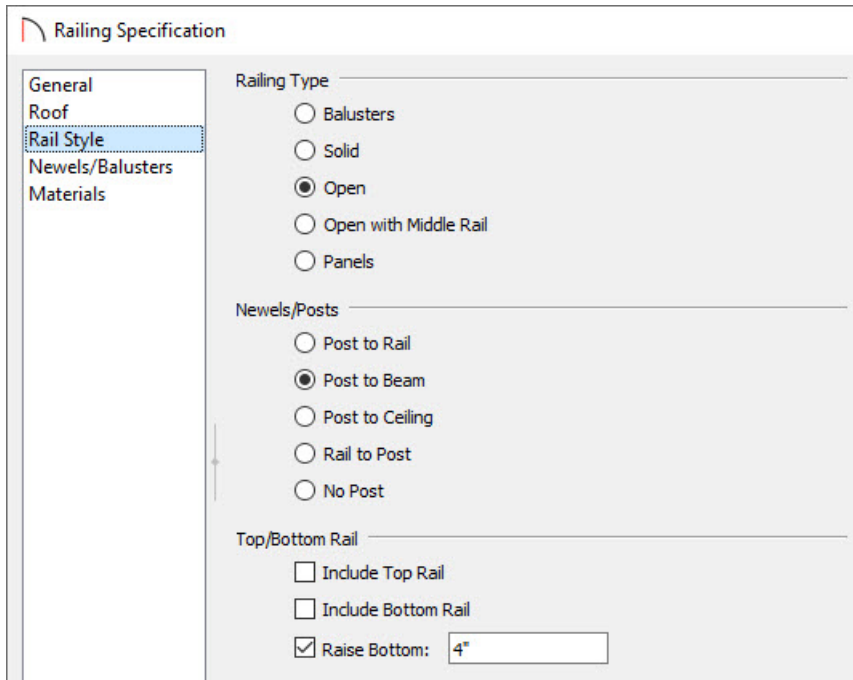


- Specify the **Thickness** to equal the size of posts that you want.

In this example, 7 1/4" is used.

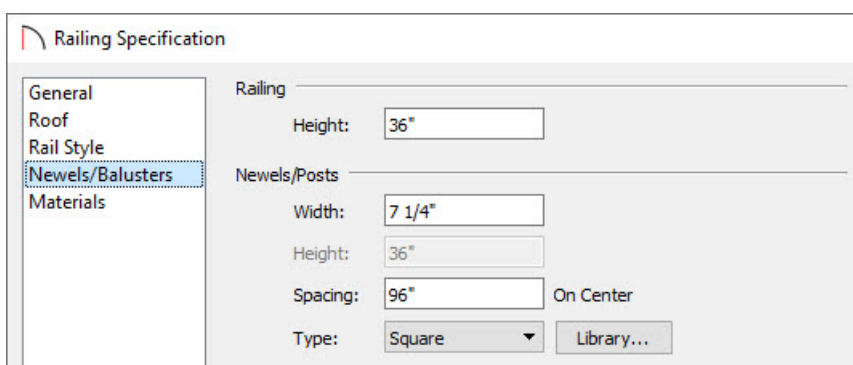
- Uncheck **No Locate** so that the railing will be located if you choose to use the **Auto Exterior Dimensions**

5. On the RAIL STYLE panel:



- Specify the **Railing Type** to be **Open**.
- Specify the **Newels/Posts** to be **Post to Beam**.
- Uncheck both **Include Top Rail** and **Include Bottom Rail**.

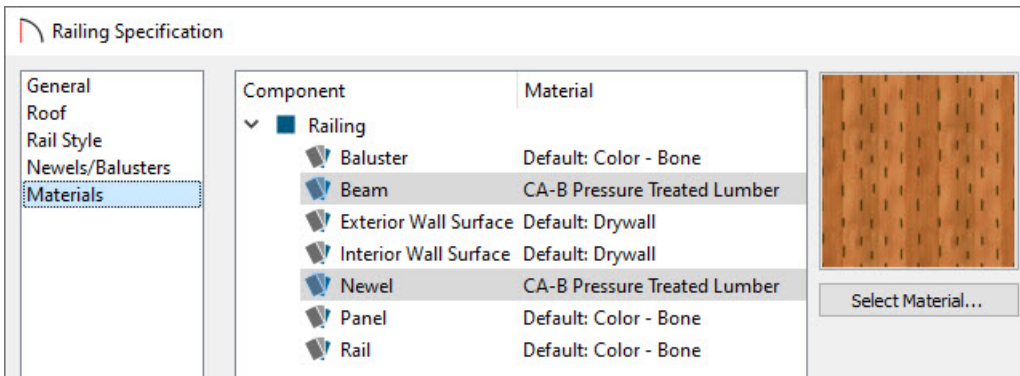
6. On the NEWELS/BALUSTERS panel:



- Increase the **Width** of the Newels/Posts to be the same as the railings width.
In this example, 7 1/4" is used.
- If you'd like, you can select the **Type** and specify an on center (O.C.) **Spacing** for the Newels/Posts.
In this example, we will use Square newels and 96" O.C.

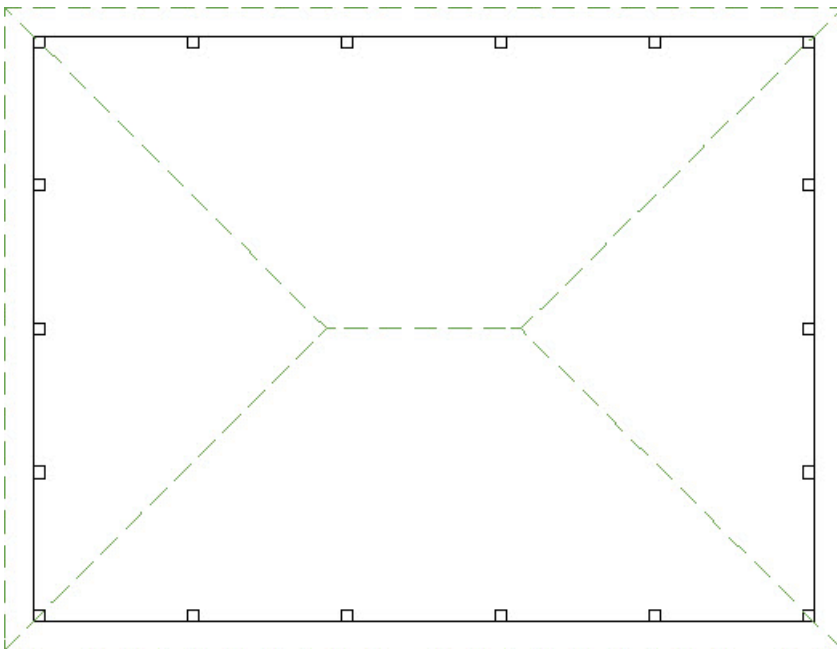
7. On the MATERIALS panel, change the materials of the **Beam** and **Newel** components, then click **OK** to close the

dialog.



In this example, a framing material is used.

8. Repeat this procedure for each of your structure's perimeter railing walls.





In situations where no posts are desired on one or more sides of your structure, you can either specify the Spacing (O.C.) to be as large as the total length of the railing wall, or you can set the railing wall to be No Post under the Newels/Posts section within the Railing Specification dialog. Please see Step 5 and Step 6 above for reference.

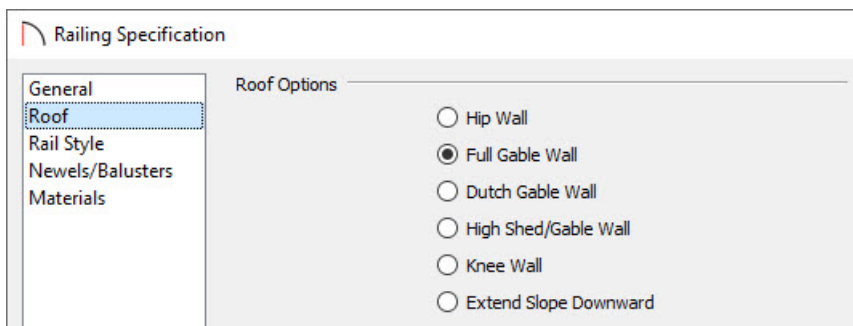
9. Take a **Camera**  view to see the results so far.




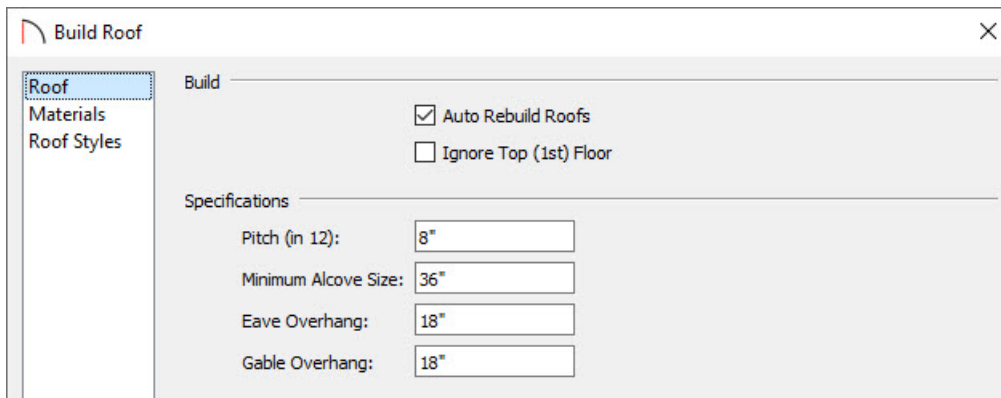
By default, the program will generate a roof plane over each exterior wall, defining a hip roof.


To create a gable roof

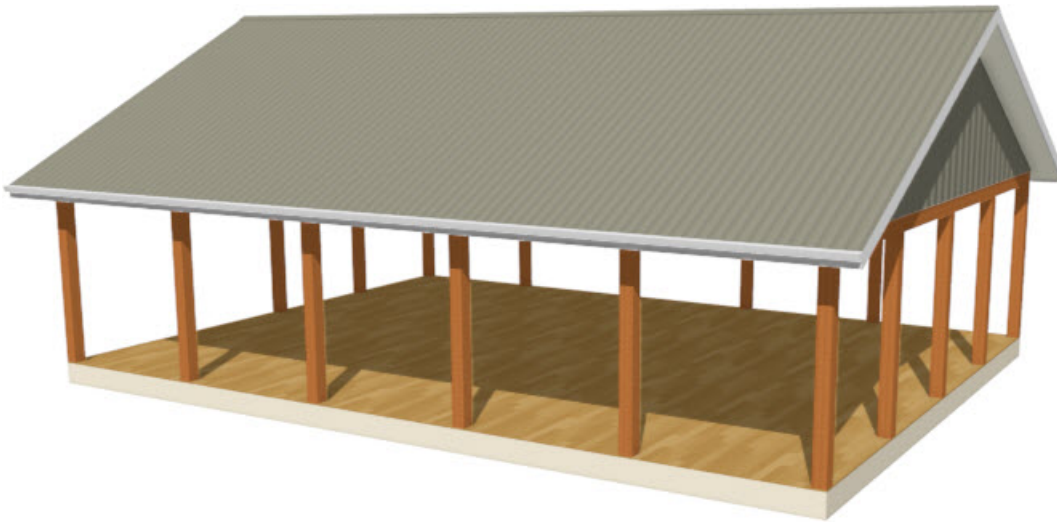
1. Click the **Select Objects**  button, then click on a railing wall that you would like to have a gable above.
2. With the railing wall selected, click on the **Open Object**  edit tool.
3. On the **Roof** panel of the **Railing/Wall Specification** dialog that opens, select the **Full Gable Wall** option, then click **OK**.



4. Select **Build> Roof> Build Roof**  from the menu.
5. On the **Roof** panel of the **Build Roof** dialog that opens, specify the desired **Pitch** and **Overhang** values.



6. On the **MATERIALS** panel, you can select materials for the **Roof Surface**, [Fascia](#), and more.
7. When you are finished making your desired changes, click **OK** to rebuild the roof and take a **Camera**  view to see the results.





Note: If you would like to have an open gable rather than one enclosed by a physical wall, navigate up to Floor A (Attic) in a plan view, select each of the gable attic walls here, and click the Make Wall(s) Invisible edit tool.

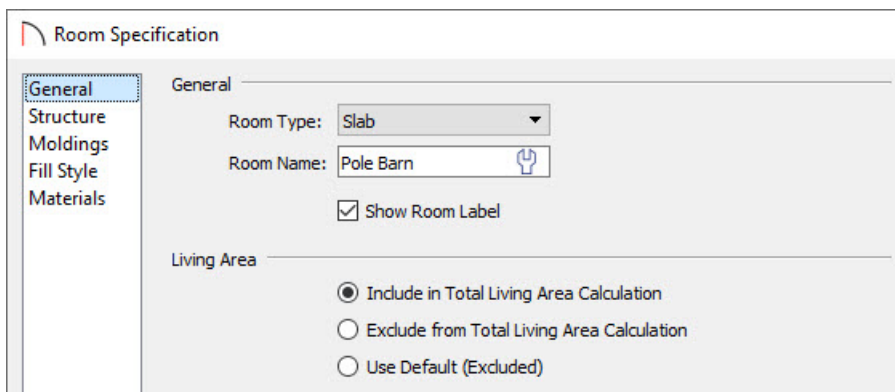
A Question box may appear that mentions that you're editing an automatically generated wall. Click Yes to confirm the change.

The default floor structure for a new room is a framed platform with wood flooring. This can be easily changed to a [slab](#), or to no [floor platform](#) whatsoever.

To add a concrete monolithic slab floor

1. Using the **Select Objects**  tool, click in an empty space in the pole structure's room to select it, then click the **Open Object**  edit tool.

2. On the **GENERAL** panel of the **Room Specification** dialog that opens:



- Use the **Room Type** drop-down and select the "Slab" option if you're wanting a concrete slab.
- For a structure with no floor, select "Open Below."
- If you'd like, you can type a custom **Room Name** in the text field.
- Under the **Living Area** heading, select the radio button beside **Include in Total Living Area Calculation**.
- Click **OK** to close the dialog and apply your changes.

Most pole barns use the underside of the roof as a ceiling rather than a flat ceiling. This can be easily specified.

To create a sloped ceiling

1. Select the room and click on the **Open Object**  edit button once more.
2. On the **STRUCTURE** panel of the **Room Specification** dialog, uncheck **Flat Ceiling Over This Room**, then click **OK**.

Room Specification

General
Structure
Moldings
Fill Style
Materials

Absolute Elevations

Floor Above: 114 5/8"

Ceiling: 109 1/8"

Floor: 0"

Floor Below: 0"

Relative Heights

Rough Ceiling: 109 1/8"

Finished Ceiling: 108 1/2"

SWT To Ceiling: 109 1/8"

Ceiling Below: 0"

Stem Wall: 37 1/2"

SWT = Stem Wall Top

Ceiling

Roof Over This Room

Flat Ceiling Over This Room

Shelf Ceiling

Use Soffit Surface for Ceiling

Ceiling Structure: 5 1/2"

Ceiling Finish: 5/8" Default

Use corbels from the **Library Browser** to add angled braces at the top of the posts, or add other Millwork objects to add details to your structure, and add vehicles for space planning. If you don't see an item in the Home Designer library that suits your needs, you can import symbols from other sources. To learn more, see the Related Articles section below.

Related Articles

- [Creating Beams in Home Designer Pro \(/support/article/KB-00458/creating-beams-in-home-designer-pro.html\)](/support/article/KB-00458/creating-beams-in-home-designer-pro.html)
- [Generating Framing in Home Designer Pro \(/support/article/KB-00462/generating-framing-in-home-designer-pro.html\)](/support/article/KB-00462/generating-framing-in-home-designer-pro.html)
- [Locating and Importing 3D Symbols \(/support/article/KB-00888/locating-and-importing-3d-symbols.html\)](/support/article/KB-00888/locating-and-importing-3d-symbols.html)