

Creating an Arched Parapet Wall

Reference Number: **KB-01958**

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The information in this article applies to:



QUESTION

How do I create and generate framing for aparapet wall that has an arch?




ANSWER

You can create an arched parapet wall by building a new 2nd floor, adjusting the height and materials as needed, then modifying the front parapet wall using a roof plane.

Begin by opening the plan in which you would like to create an arched parapet wall. In this example, a simple 30' x 40' rectangular structure with a basic foundation will be used.

To create parapet walls

1. The roof area with parapet walls will be created using an additional floor, so select **Build> Floor> Build New Floor**  from the menu.
2. In the **New Floor** dialog, choose **Derive new 2nd floor plan from the 1st floor plan** option and click **OK**
3. On the **STRUCTURE** panel of the **2nd Floor Defaults** dialog, which opens next:

2nd Floor Defaults

Structure

Moldings

Fill Style

Materials

Absolute Elevations

Floor Above:

Ceiling:

Floor:

Floor Below:

Relative Heights

Rough Ceiling:

Finished Ceiling:

SWT To Ceiling:

Ceiling Below:

Stem Wall:

SWT = Stem Wall Top

Ceiling

☐ Roof Over This Room

☐ Flat Ceiling Over This Room

☐ Shelf Ceiling

☐ Use Soffit Surface for Ceiling

- Set the **Rough Ceiling** value to equal the height you would like your parapet walls to be.

In this example, a value of 36" is specified.

- Remove the checks from **Roof Over This Room** and **Flat Ceiling Over This Room**.
- Click the **Edit** button next to Floor Finish to open the **Floor Finish Definition** dialog.

Floor Finish Definition

Material Layers

Layer #	Material	Pattern	Texture	Fill	Thickness
1	EPDM Seamed - Black				3/4"

Total Thickness: 3/4"

Structure

☐ Framing

Type: Lumber

Spacing: 5" On Center

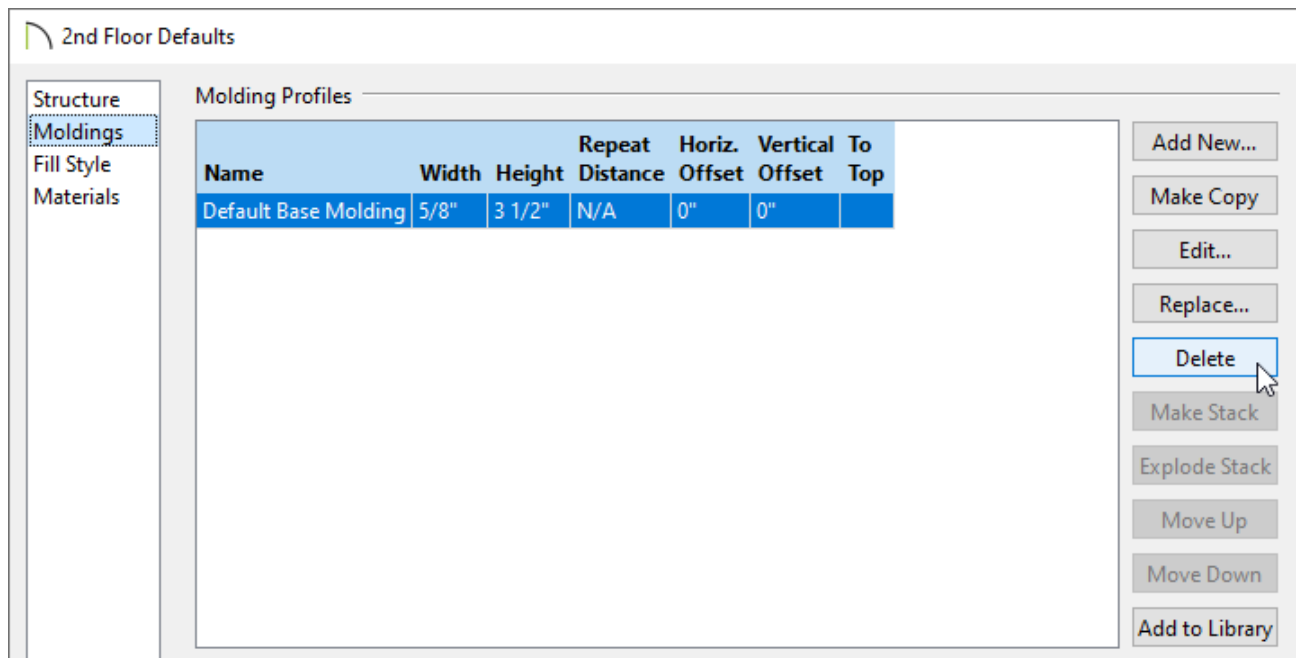
Width: 3/4"

☐ Auto Detail as Insulation

☐ Air Gap

- Select the topmost layer, click in the **Texture** box, select an appropriate flat roofing material, then click **OK**.
- Add and/or remove any additional layers, as desired.
- Click **OK**.



4. Next, access the **MOLDINGS** panel and click on the **Delete** button to remove the base molding from the 2nd floor.

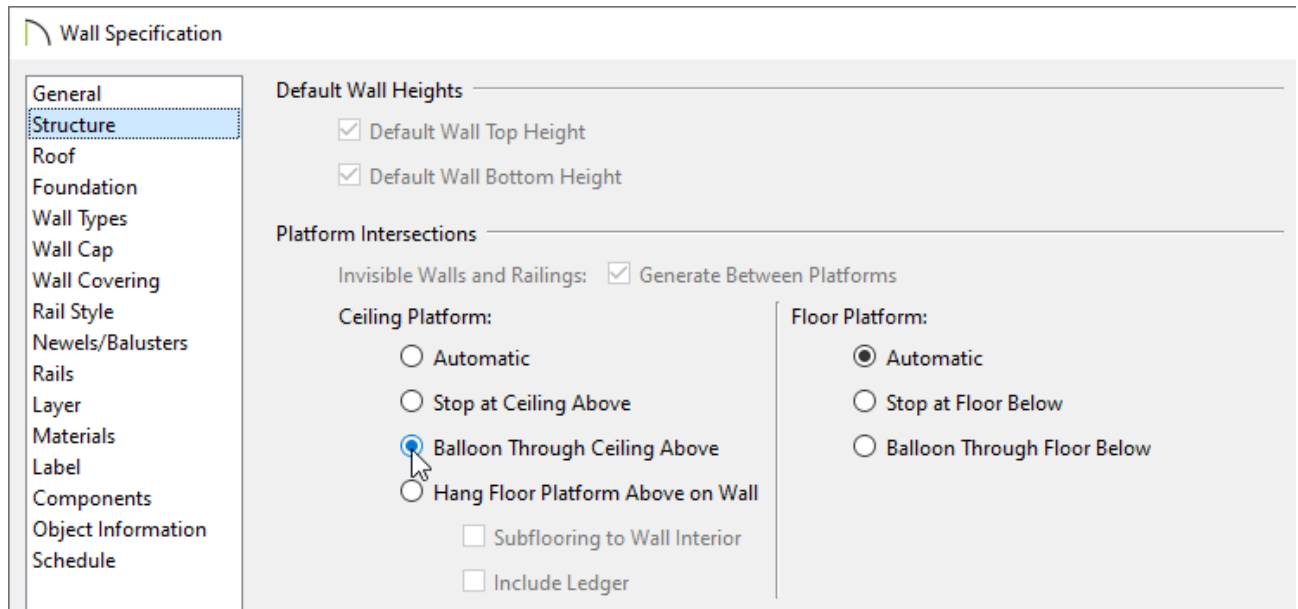



5. Click **OK**, then create a **Camera**  view to see the results so far.



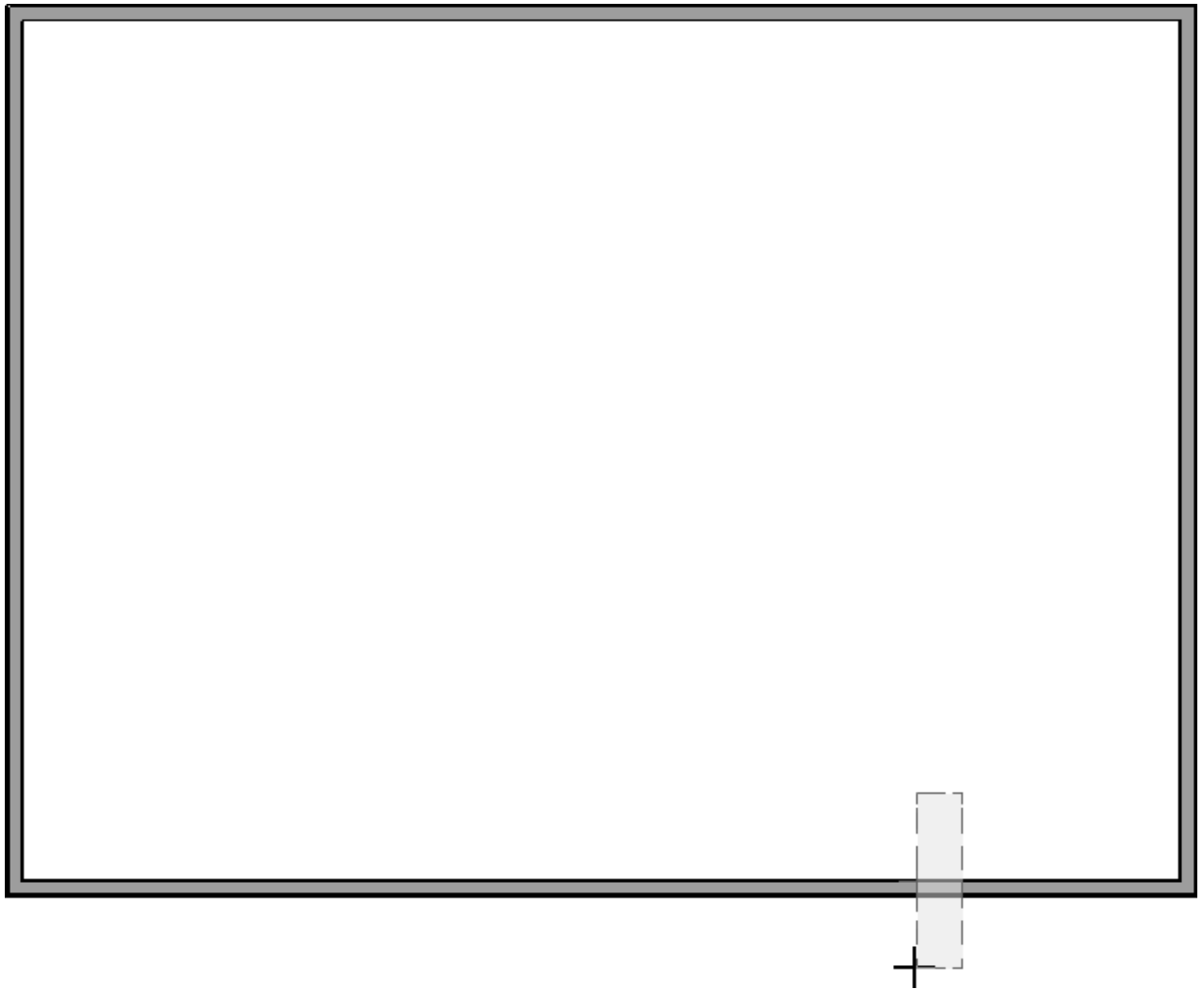
To add an arch to a parapet wall

1. Using the **Select Objects**  tool, click on the 2nd floor parapet wall that will have an arch, then click the **Open Object**  edit button.
2. On the **STRUCTURE** panel of the **Wall Specification** dialog that displays, select the **Balloon Through Ceiling Above** option under the Ceiling Platform heading, then click **OK**.

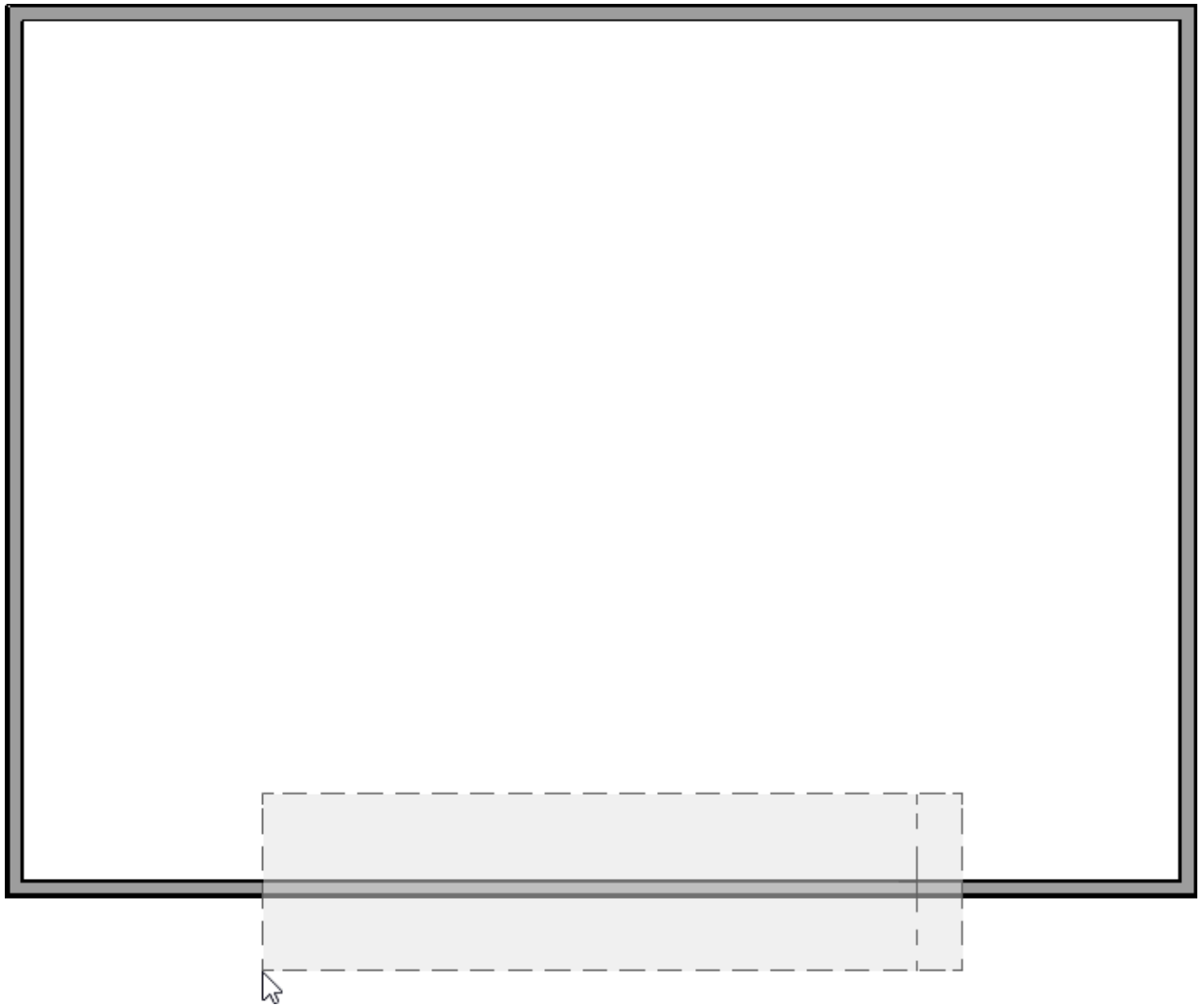


3. Select **Build> Roof> Roof Plane**  from the menu and perform the following:
 - Left-click and drag to create the roof plane's baseline spanning both the interior and exterior of the parapet wall.

Note: A Question dialog may appear stating that "This operation creates or modifies a roof plane. With Auto Rebuild Roofs turned on, your changes will be lost the next time the roof is rebuilt. Would like to turn Auto Rebuild Roofs off and continue with the operation?" Choose Yes to proceed.

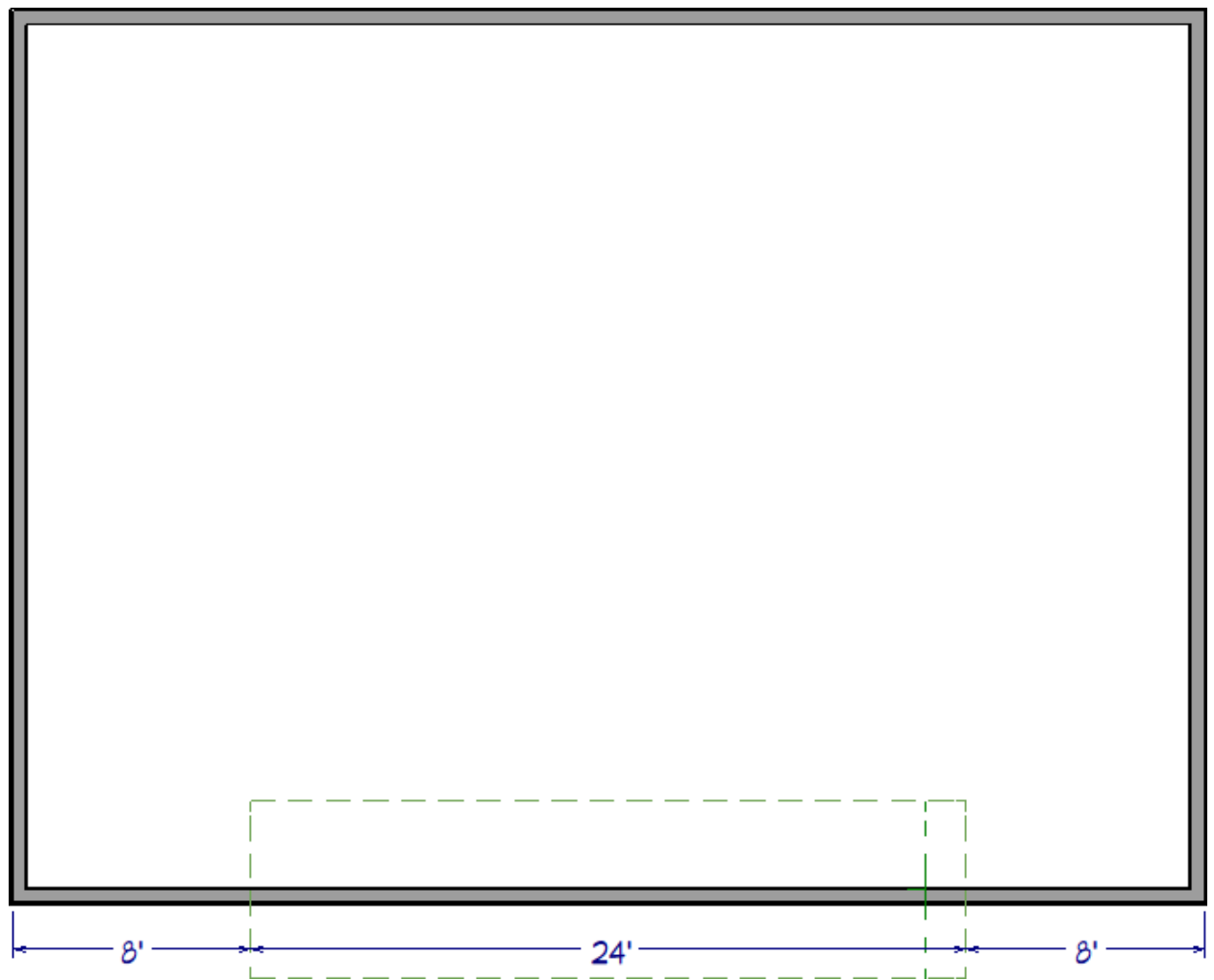



- Once the baseline has been created, move the mouse to the opposite side of the structure and click where you would like the roof plane to stop at.



- Adjust the left and right edges of the roof plane, as needed. The left edge of the roof plane will be where the arch starts, while the right edge will be where the arch stops.

In this example, we created a roof plane that is 24' in length and centered on the structure.



4. Select the roof plane and click the **Open Object**  edit button.
5. On the **GENERAL** panel of the **Roof Plane Specification** dialog:

Roof Plane Specification

General

Framing Method: ☐ Trusses ☒ Rafters

Height/Pitch

Top of Plate: N/A ☐ Lock

Heel Height: N/A

Baseline Height: 165 3/16" ☒ Lock

Ridge Top Height: 165 3/16" ☐ Lock

Fascia Top Height: 165 11/16" ☐ Lock

Shadow Boards Top Height: 165 11/16" ☐ Lock

Pitch (in 12): 0" ☐ Lock

☐ Pitch in Degrees

Measurements

Structure Thickness: 9 1/4"

Birdsmouth Depth: 0"

Birdsmouth Seat: 0"

Vertical Structure Depth: 9 1/4"

Overhang From Baseline: 16"

Manual Roof Plane

☒ Use Special Snapping

☒ Curved Roof

Angle at Eave: 30.0°

Angle at Ridge: -30.0°

Radius to Framing Top: 288"

Facet Angle: 4.8°

☒ Automatic Facet Angle

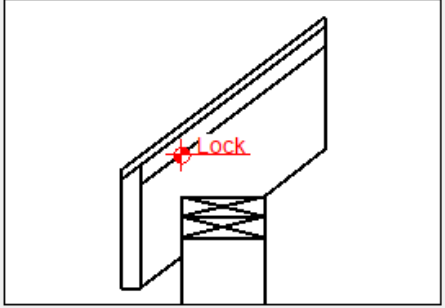
Baseline

Baseline Angle: 0.0°

Baseline Height at: ☒ Start ☐ End

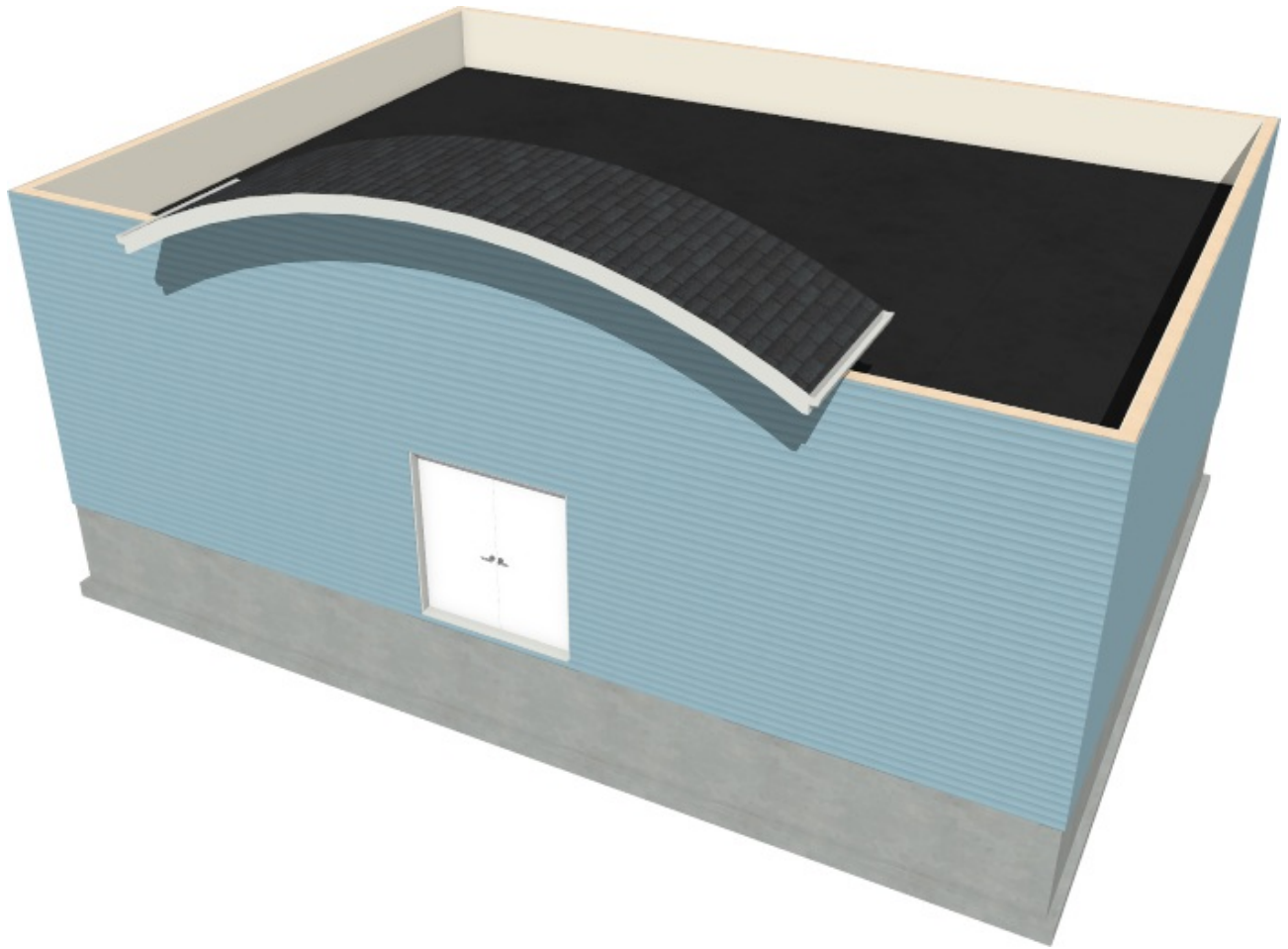
Number Style...



OK Cancel Help

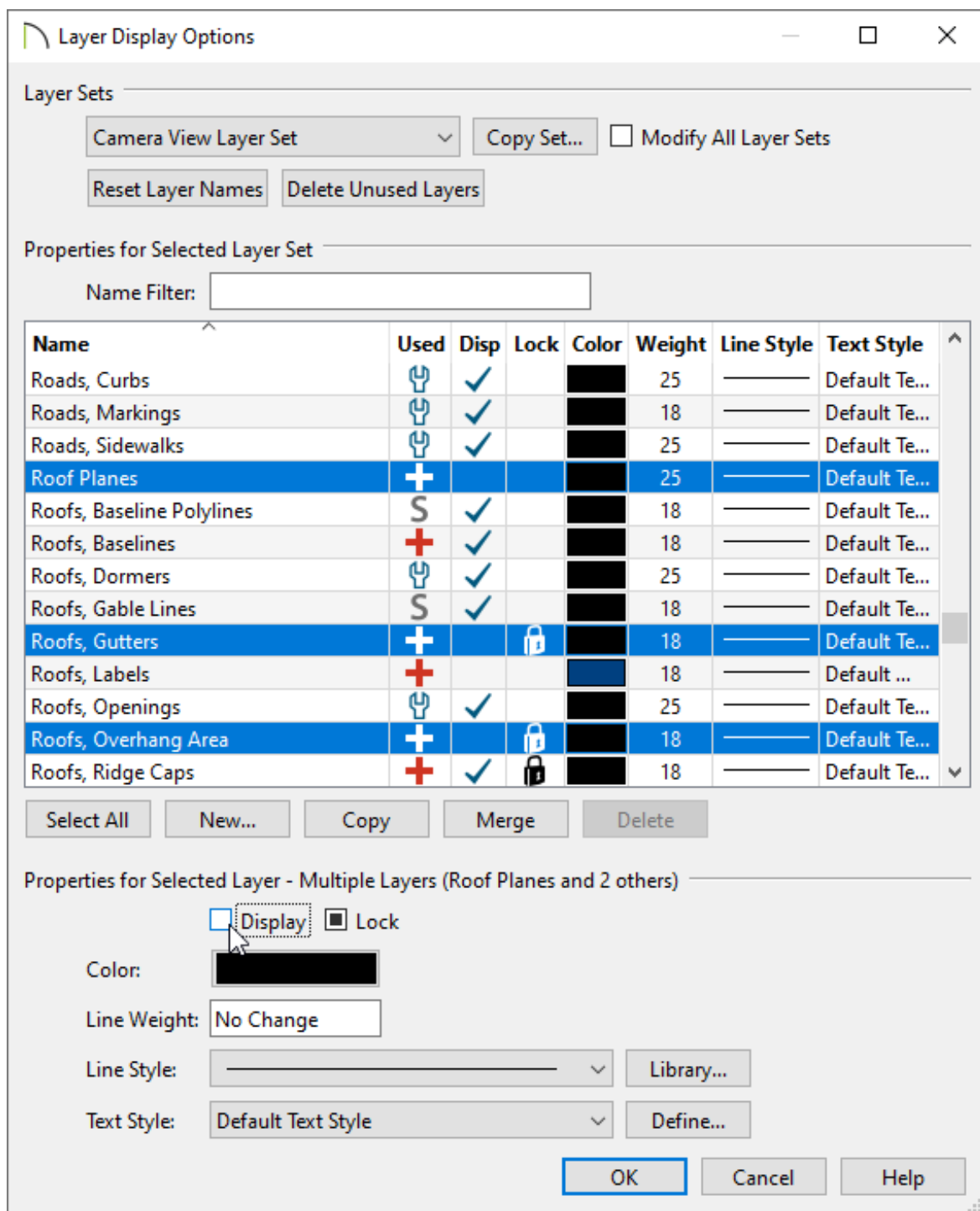


- Specify a value of 0" in the Lock **Pitch** input field.
- Check the box beside **Curved Roof**.
- Set the **Angle at Eave** value to 30°.
- On the **STRUCTURE** panel, uncheck the **Use Room Ceiling Finish** box located under the Roof Layers heading.
- Click **OK** to close the dialog and apply your changes.

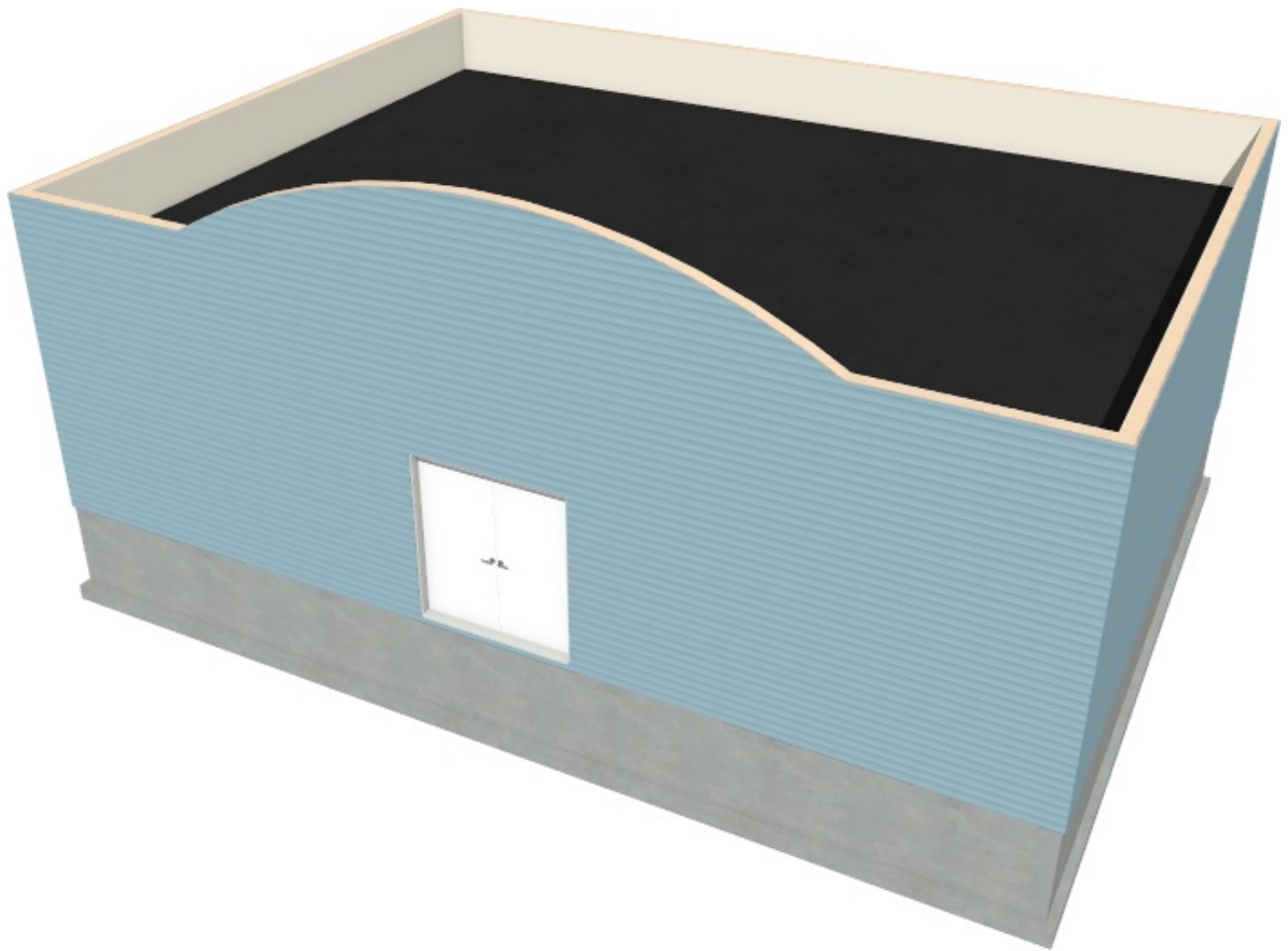
6. Create a **Camera**  view to see the results so far.





7. Next, while remaining in the camera view, open the **Layer Display Options** dialog by navigating to **Tools> Layer Settings> Display Options** , or access the **Active Layer Display Options**  side window.



- Scroll down the list of layers to find the "Roof" layers or use the Name Filter to filter by keyword.
- Turn off the display of the "Roof Planes", "Roofs, Gutters", and "Roofs, Overhang Area" layers.
- Click **OK**.



8. If wall caps are desired, select the 2nd floor walls using the **Select Objects**  tool, click the **Open Object**  edit tool, and on the **WALL CAP** panel of the **Wall Specification** dialog that appears:

Wall Specification

General
Structure
Roof
Foundation
Wall Types
Wall Cap
Wall Covering
Rail Style
Newels/Balusters
Rails
Layer
Materials
Label
Components
Object Information
Schedule

☐ No Change

Wall Cap Profile

Name	Width	Height	Repeat Distance
3 x 10	10"	3"	N/A

Add New...
Replace...
Default
Delete
Add to Library

☐ Retain Aspect Ratio ☐ Full Wall Width ☒ Split Pony Wall

Selected Profile Options

Profile Rotation: 0.0°

☐ Extrude Inside Wall
☐ Count Components in Materials List

3 x 10


- If necessary, uncheck the **No Change** box.
- Click the **Add New** button to browse the library for a suitable profile, then click **OK**.

A variety of wall cap profiles can be located by navigating to Chief Architect Core Catalogs> Architectural> Moldings, Profiles, Extrusions> Handrails and Caps.

- Make any desired adjustments to the **Width** and **Height**, then click **OK**.

To build framing*

**Applies to Chief Architect Premier Only.*


1. In a floor plan view, select **Build> Framing>Build Framing**  from the menu, and in the **Build Framing** dialog:
 - If a foundation has been generated, check the **Build Floor Framing** box on the **FOUNDATION** panel.


- Select the **1ST** panel and check the **Build Floor Framing** box.
- Select the **WALL** panel and check the **Build Wall Framing** box.
- Build any additional framing that is necessary, then click **OK**.


Note: You may be presented with several Question dialog boxes asking if you'd like to display framing layers in the current view. For the purposes of this example, we will select Yes to turn on the layers related to our wall framing. However, in your case, you may want to switch to one of your "Framing" plan views prior to this step, if you don't want to display framing in your currently active plan view.

2. Navigate to **3D> Create perspective View> Perspective Framing Overview**  to see a camera view of the framing.



 [Creating a Flat Parapet Roof \(/support/article/KB-00295/creating-a-flat-parapet-roof.html\)](/support/article/KB-00295/creating-a-flat-parapet-roof.html)

 [Group Selecting Objects \(/support/article/KB-00623/group-selecting-objects.html\)](/support/article/KB-00623/group-selecting-objects.html)

 [Working with Wall Caps \(/support/article/KB-03119/working-with-wall-caps.html\)](/support/article/KB-03119/working-with-wall-caps.html)



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