Modeling a Crawl Space

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The information in this article applies to:

PRO   ARCH   SUITE

QUESTION

I need to model a crawl space under my structure in Home Designer. How can I do that?
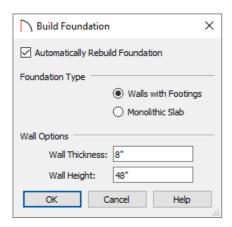

ANSWER

Modeling a crawl space in Home Designer can be easily done by setting the appropriate wall height when you build your foundation, and using terrain features.

To build the foundation

1. First, launch your Home Designer software program and **Open** the plan in which you would like to create your crawl space.

2. Select **Build> Floor> Build Foundation** from the menu.

3. In the **Build Foundation** dialog, select the **Walls with Footings** foundation type and set the **Wall Height** for the height of your crawl space.

   In Home Designer Pro, The Wall Height is called the Minimum Height, and it's located under the Stem Walls section.
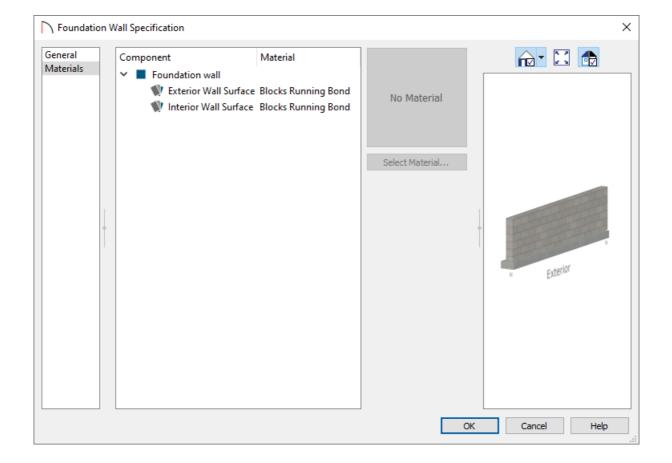
   For the purposes of this example, we used 48".

> **Note:** If the foundation's Wall Height is less than 76" (1900 mm), an automatic slab floor will not be created.

4. Click **OK** to generate and display the foundation level.

5. Use the **Select Objects** tool to select a foundation wall and click on the **Open Object** edit tool.

6. On the MATERIALS panel of the **Foundation Wall Specification** dialog that opens, specify an appropriate material for the **Exterior** and **Interior Wall Surface** using the **Select Material** button.

   For the purposes of this example, we used the Blocks Running Bond material, which can be found by navigating to Home Designer Core Catalogs> Materials> Masonry and Stone> Blocks.

Foundation Wall Specification

Component	Material
∨ ■ Foundation wall	
▮ Exterior Wall Surface	Blocks Running Bond
▮ Interior Wall Surface	Blocks Running Bond

No Material

Select Material...

Exterior

OK   Cancel   Help

7. Click **OK** to apply this change.

8. Repeat this procedure for each foundation wall so all of the materials are the same.

To create a terrain feature

1. With all the foundation walls in place, create a terrain by going to **Terrain> Create Terrain Perimeter** 🏠 .

2. Using the **Select Objects** ⟠ tool, click on the terrain perimeter, then on the **Open Object** ▯ edit tool.

3. Remove the check for the **Hide Terrain Intersected by Building** setting, then click **OK**.

> **Note:** You can also remove the check in the Automatic box if you would like to specify a custom value for the Subfloor Height Above Terrain field. Please see the Related Articles section below to learn about how the structure's height relates to the terrain.

4. Navigate to **Terrain> Feature> Rectangular Terrain Feature** ▯ , then left-click and drag to create a rectangle. This rectangle will serve as the crawl space dirt.

> If necessary, use the Reference Display found under Tools> Floor/Reference Display> Reference Display to show another floor's information.

5. Once the rectangle is drawn, use the various edit handles to reshape it to your needs. You can also use the **Break** and **Change Line/Arc** edit tools to customize the terrain feature further.

6. Using the **Select Objects** tool, click on the terrain feature, then click the **Open Object** edit tool.

   - On the GENERAL panel, adjust the **Terrain to Top** and the **Thickness** of the feature.

   - On the MATERIALS panel, select an appropriate material for your crawl space floor to give it the look of dirt or a plastic vapor barrier.

7. Once all desired changes have been made, click **OK**, then take a **Camera** view to see the results.

You may notice when you initially take a camera view that it actually displays in the room above the crawl space area, because of the default Height Above Floor value set for your camera.

To adjust the camera

1. To lower the camera, select the **Move Camera Down** tool by going to **3D> Move Camera> Move Camera Down** .

   > Pressing the D key on your keyboard will move the camera downwards in a 3D view, along with U for Up, L for Left, R for Right, B for Backwards, and F for Forwards.

2. Alternatively, you can also select **Window> Tile Vertically** to see both your 2D floor plan view and 3D camera view.

   - Once the two views are tiled, click within the 2D floor plan view and then click once more on the camera to select it.

   - With the camera selected, click the **Open Object** edit tool to display the **Camera Specification** dialog and lower the **Height Above Floor** value so that it will correctly view the crawl space area.