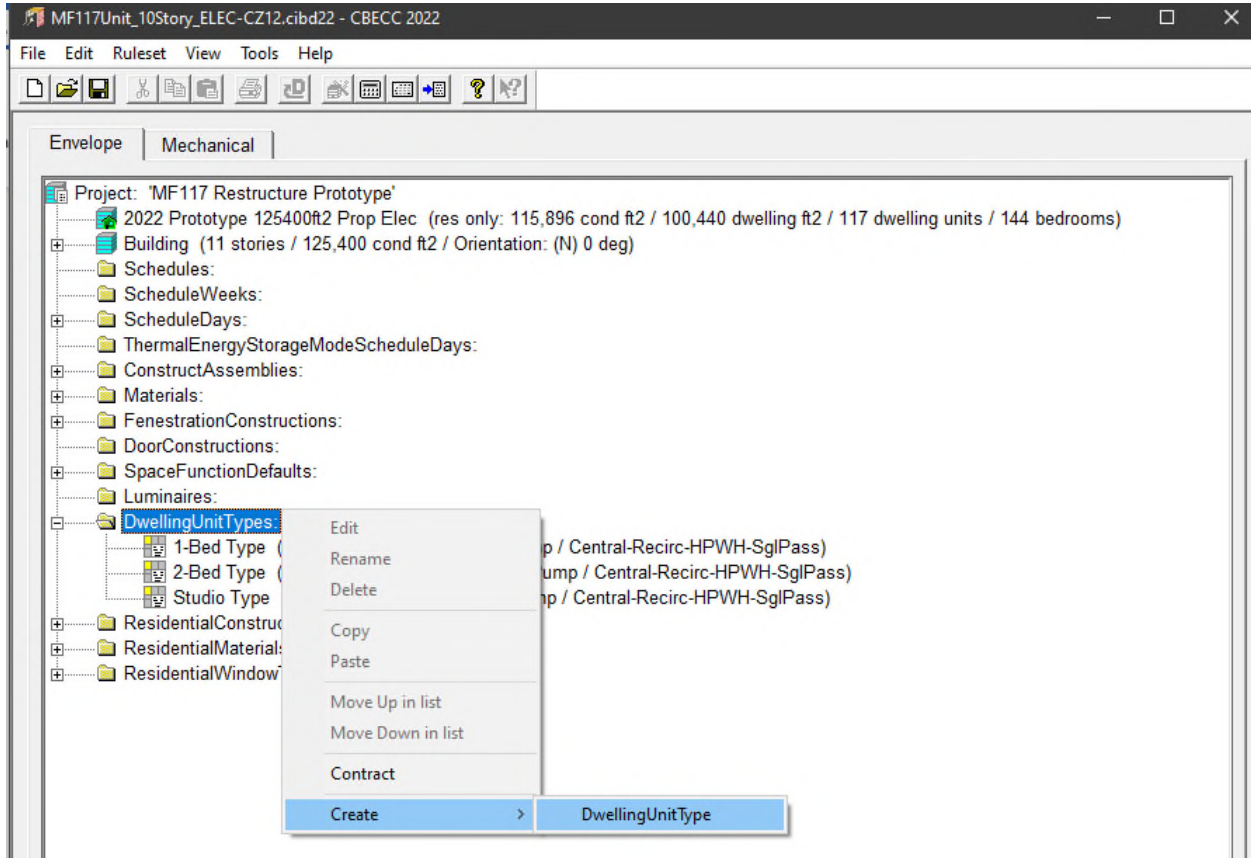
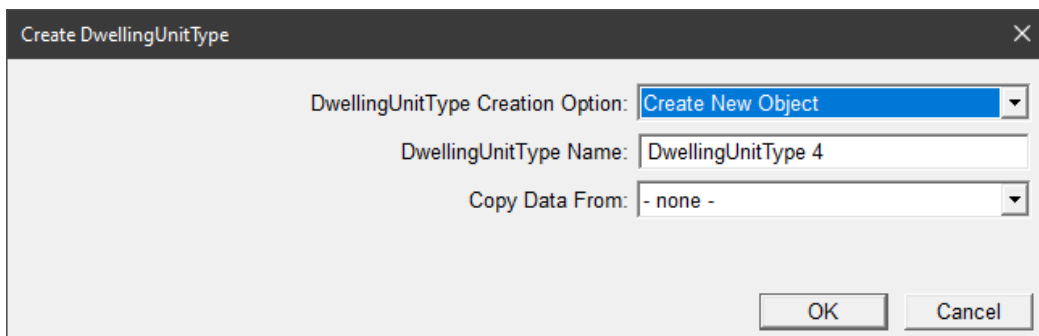


Creating a Dwelling Unit Type (Multifamily/Residential)

To create Dwelling Unit Types for Multifamily projects, right-click on **DwellingUnitTypes** folder in the Envelope Tab and click **Create > DwellingUnitType**



This will bring up a Create **DwellingUnitType** dialog box as shown below. Enter the Name for the Dwelling Unit Type.



Click **OK** to continue and it will bring up another dialog box asking for Conditioned Floor Area

'DwellingUnitType 4' Primary Data

Conditioned floor area (per unit): ft2

Click **OK** after entering the area and it will bring up the **Dwelling Unit Type Data** Screen.

Building Model Data

Dwelling Unit Type Data | Indoor Air Quality Vent | Additional HVAC Equip. Assignments | Additional DHW System Details

Currently Active Dwelling Unit Type:

Name: Conditioned Area: ft2 Number of Bedrooms:

Appliance Data

- Refrigerator usage: kWh/yr
- Dishwasher usage: kWh/gal
- Cooking appliances fuel:
- Clothes Washer:
- Clothes Dryer: fuel:

HVAC and Water Heating Equipment

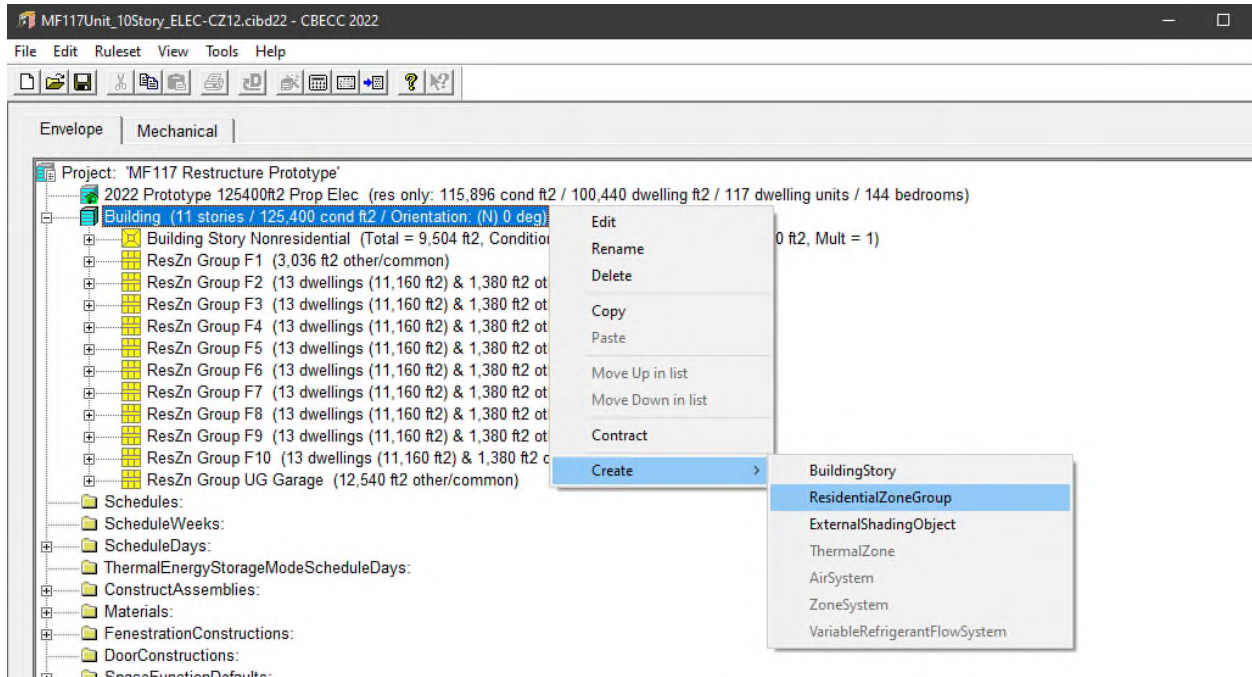
HVAC System Type:

DHW Distribution Compactness:

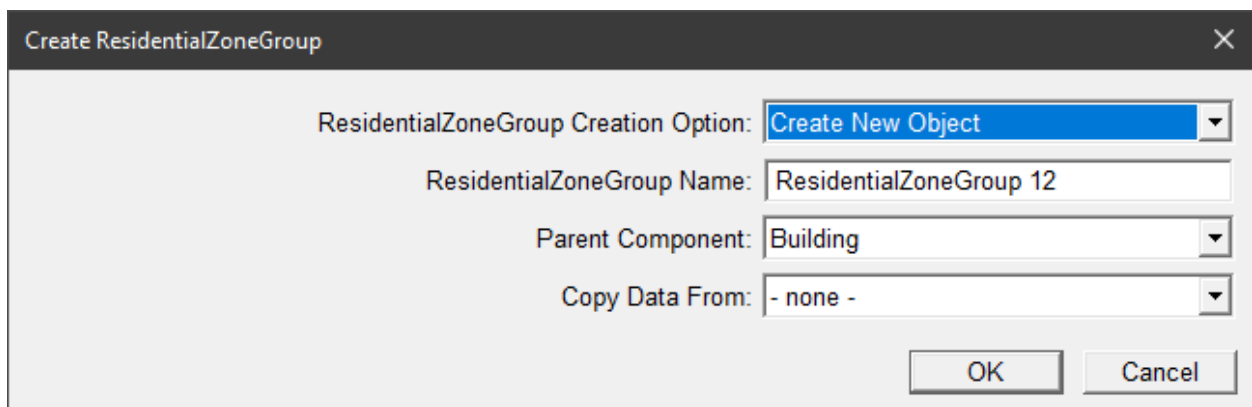
Finish entering all the data and assignments in the various tabs of the Dwelling Unit as required and Click **OK**.

Creating a Residential Zone Group

On the **Envelope** Tab, right-click on the **Building** Object and select **Create > ResidentialZoneGroup**



This will bring up a Create **ResidentialZoneGroup** dialog box as shown below.



Enter the **Name** for the **Residential Zone Group**. Click **OK**.

The **Residential Zone Group Data** Screen dialog box will appear Click **OK** continue.

Building Model Data

Residential Zone Group Data

Currently Active Residential Zone Group: ResidentialZoneGroup 12

Residential Zone Group Name: ResidentialZoneGroup 12

Number of Stories: 1

Elevation (Z): ft

Flr-to-Flr Ht: ft

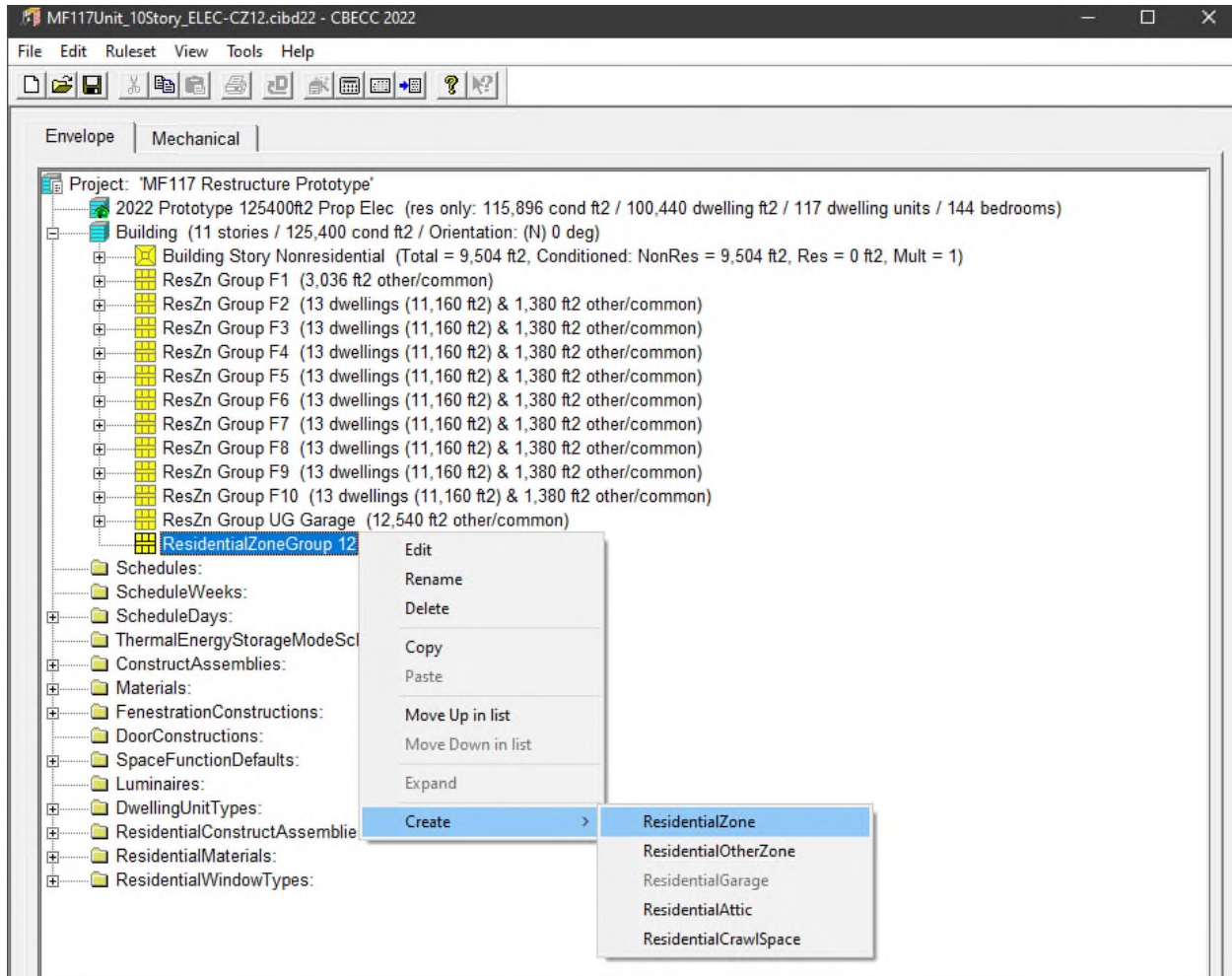
Flr-to-Ceiling Ht: ft

OK

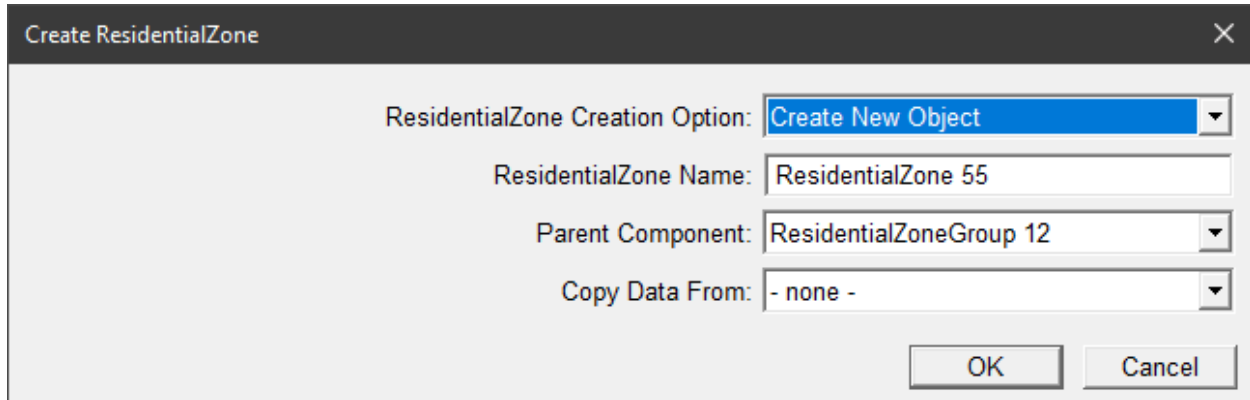
The various fields will be populated once the child objects of the Residential Zone Group are created and assigned.

Creating a Residential Zone

On the **Envelope** Tab, right-click on the **ResidentialZoneGroup** Object that you created and select **Create > ResidentialZone**

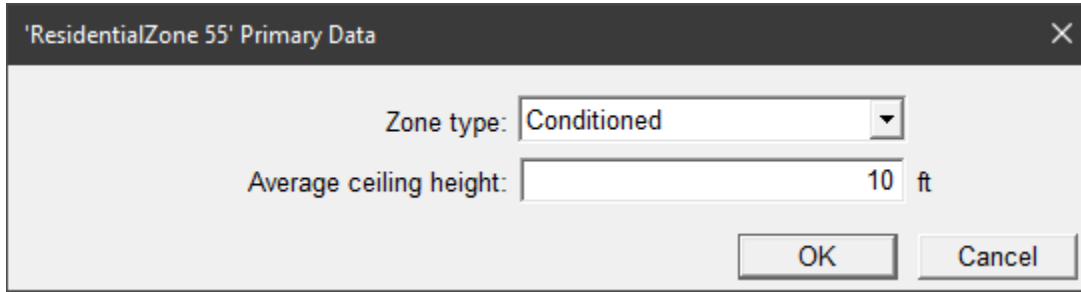


This will bring up a Create **ResidentialZone** dialog box as shown below.



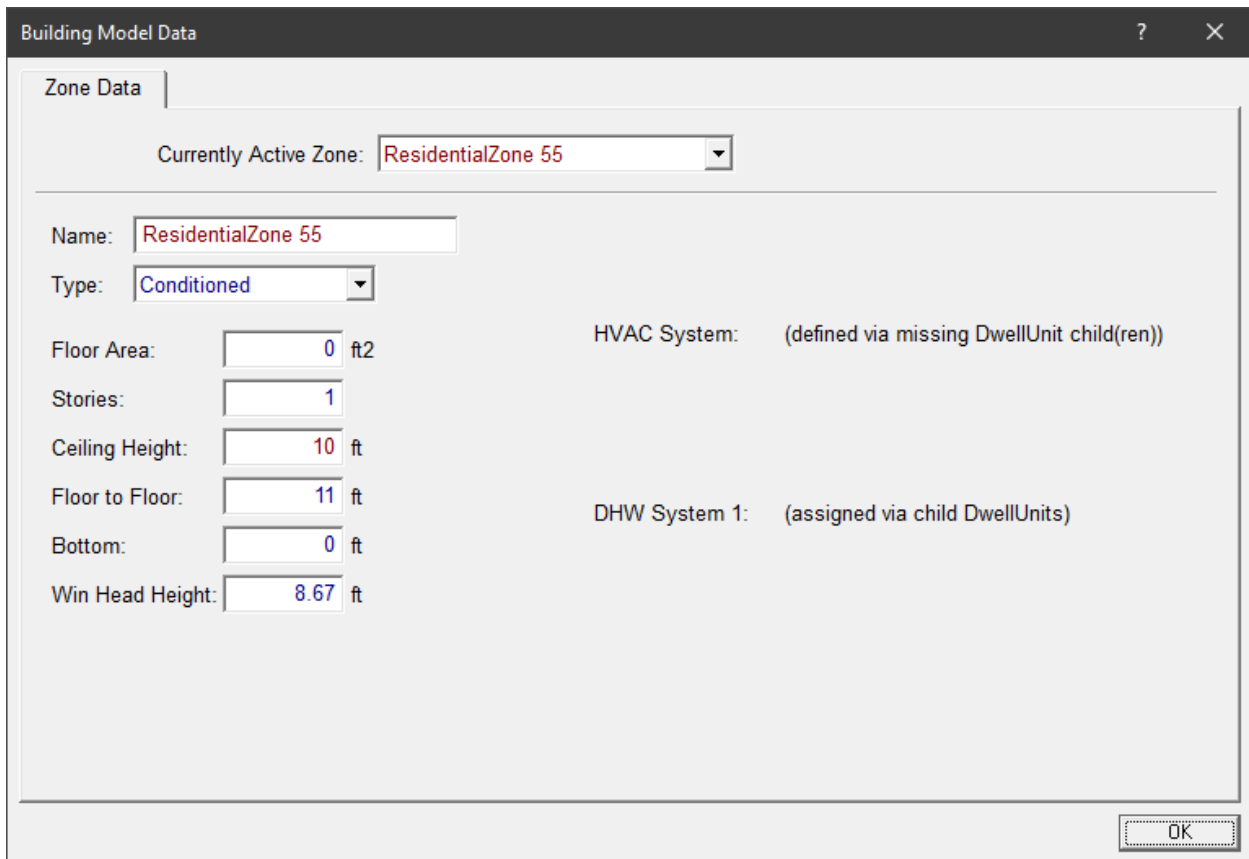
Enter the **Name** for the **Residential Zone**. Click **OK**.

The **Residential Zone Primary Data** Screen dialog box will appear. Enter the **Zone Type** and **Average Ceiling Height**. Click **OK** continue.



The screenshot shows a dialog box titled "'ResidentialZone 55' Primary Data" with a close button (X) in the top right corner. Inside the dialog, there are two input fields: "Zone type:" with a dropdown menu set to "Conditioned", and "Average ceiling height:" with a text box containing "10" and "ft" to its right. At the bottom right of the dialog are two buttons: "OK" and "Cancel".

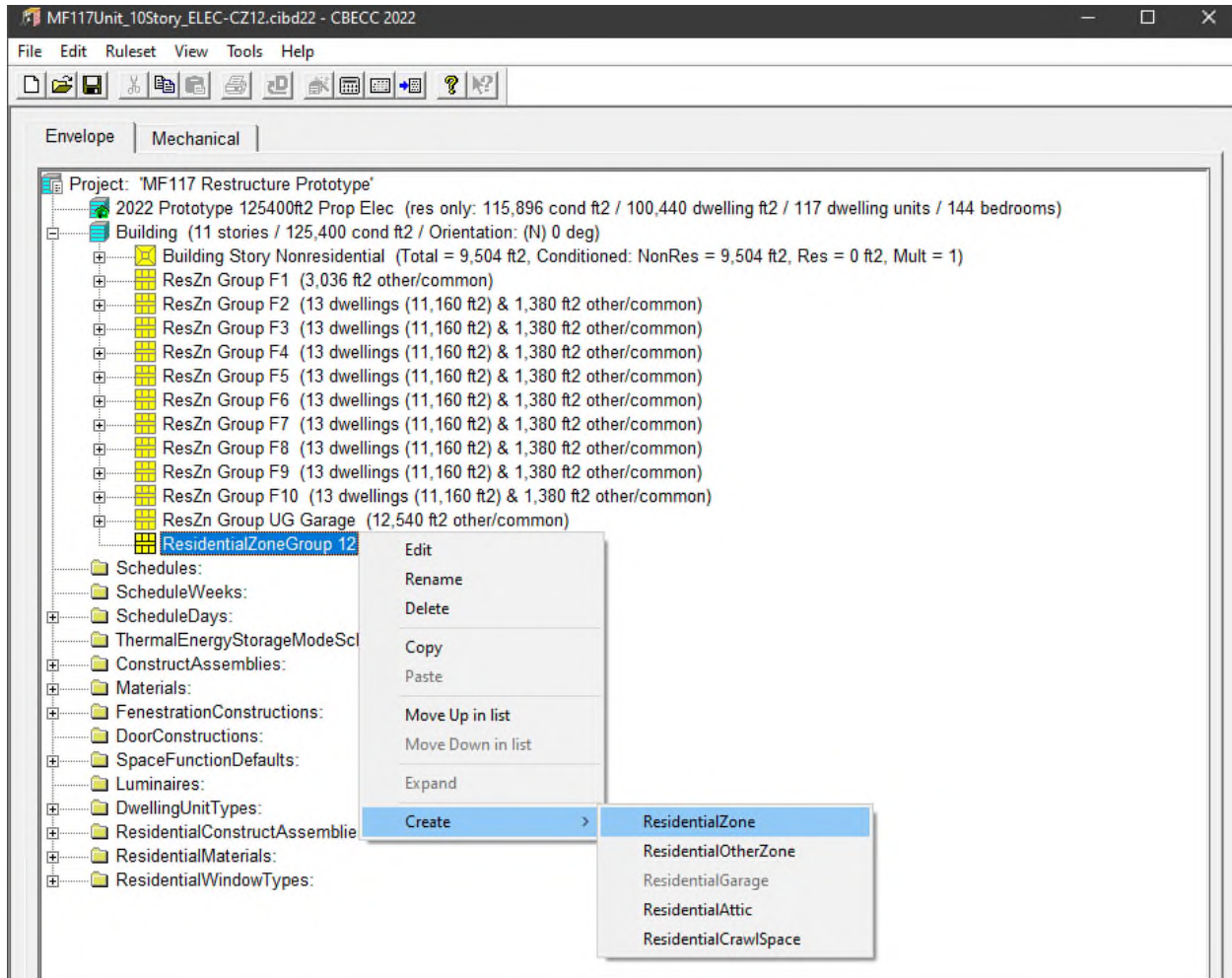
This will bring up the residential **Zone Data** Screen. Fill in all the required inputs and Click **OK**



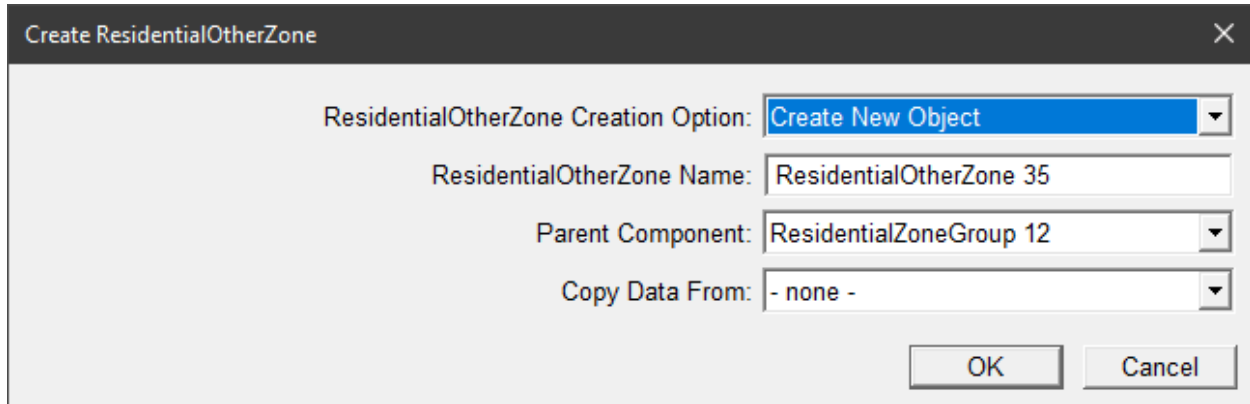
The screenshot shows a dialog box titled "Building Model Data" with a help icon (?) and a close button (X) in the top right corner. The "Zone Data" tab is selected. At the top, "Currently Active Zone:" has a dropdown menu set to "ResidentialZone 55". Below this, the "Name:" field contains "ResidentialZone 55" and the "Type:" dropdown is set to "Conditioned". On the left side, there are several input fields with values: "Floor Area:" (0 ft2), "Stories:" (1), "Ceiling Height:" (10 ft), "Floor to Floor:" (11 ft), "Bottom:" (0 ft), and "Win Head Height:" (8.67 ft). On the right side, there are two labels: "HVAC System:" (defined via missing DwellUnit child(ren)) and "DHW System 1:" (assigned via child DwellUnits). An "OK" button is located at the bottom right of the dialog.

Creating a Residential Other Zone (for Multifamily Common Area Spaces)

On the **Envelope** Tab, right-click on the **ResidentialZoneGroup** Object that you created and select **Create > ResidentialOtherZone**



This will bring up a Create **ResidentialOtherZone** dialog box as shown below.



Enter the **Name** for the **Residential Other Zone**. Click **OK**.

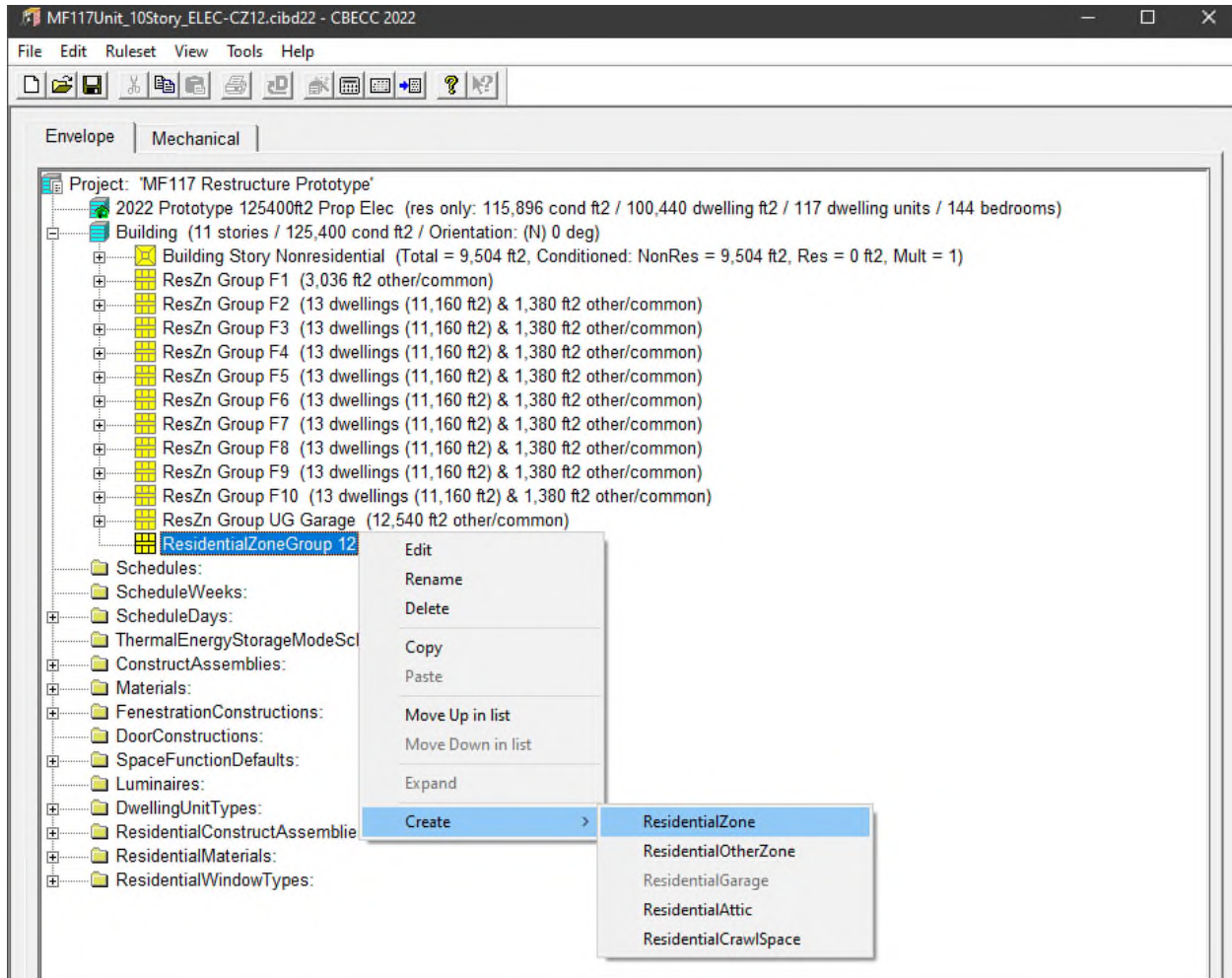
The **Other Zone Data** Screen dialog box will appear.

The screenshot shows a software dialog box titled "Building Model Data" with a sub-tab "OtherZone Data" and a secondary tab "Ventilation and Exhaust". The "Currently Active OtherZone:" dropdown is set to "ResidentialOtherZone 35". The "Name:" field contains "ResidentialOtherZone 35" and the "Type:" dropdown is set to "Conditioned". The "Space Function:" dropdown is set to "- specify -", with a "Create and Assign Com AirSys" button to its right. The "Floor Area:" field is empty with "ft2" to its right. The "Stories:" field contains "1". The "Ceiling Height:" field is empty with "ft" to its right. The "Floor to Floor:" field contains "9" with "ft" to its right. The "Bottom:" field contains "0" with "ft" to its right. The "Win Head Height:" field contains "7.67" with "ft" to its right. The "HVAC System:" dropdown is set to "- none -" with a "..." button to its right. The "DHW System:" dropdown is set to "- none -" with a "..." button to its right. The "Lighting" section has a "Specification:" dropdown set to "AreaCategoryMethod" and a "Power Density:" field containing "0" with "W/ft2" to its right. An "OK" button is located at the bottom right of the dialog.

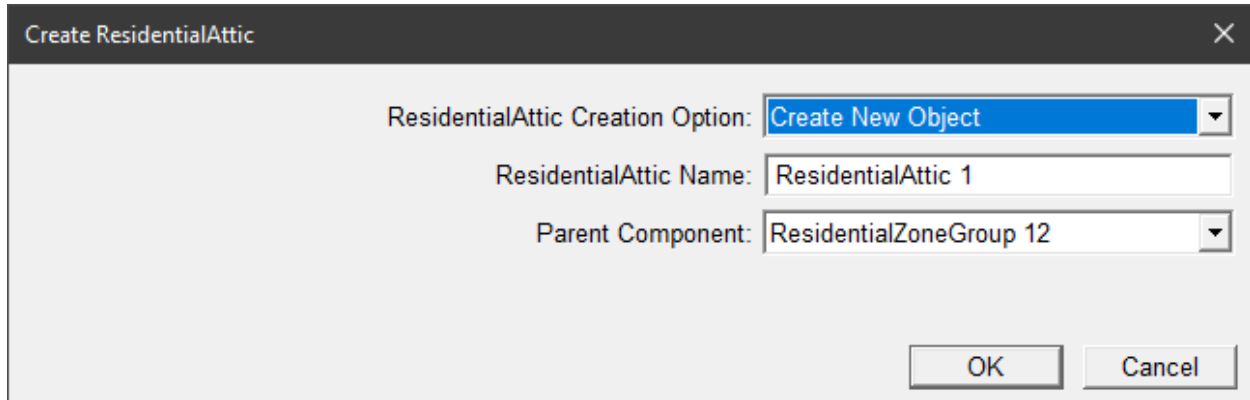
Fill in all the required inputs and Click **OK**

Creating a Residential Attic

On the **Envelope** Tab, right-click on the **ResidentialZoneGroup** Object that you created and select **Create > ResidentialAttic**

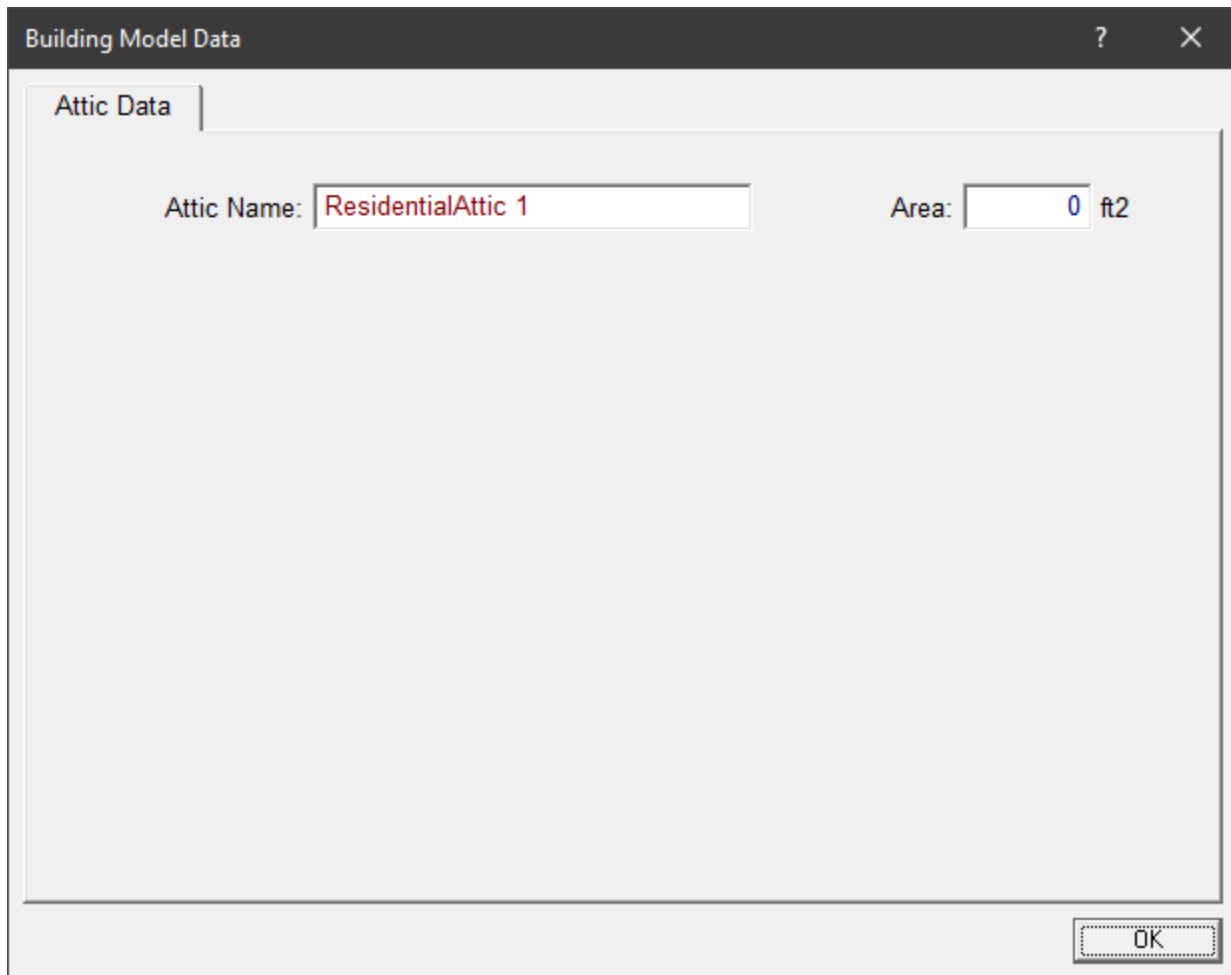


This will bring up a Create **ResidentialAttic** dialog box as shown below.



Enter the **Name** for the **Residential Attic**. Click **OK**.

The **Attic Data** Screen dialog box will appear.

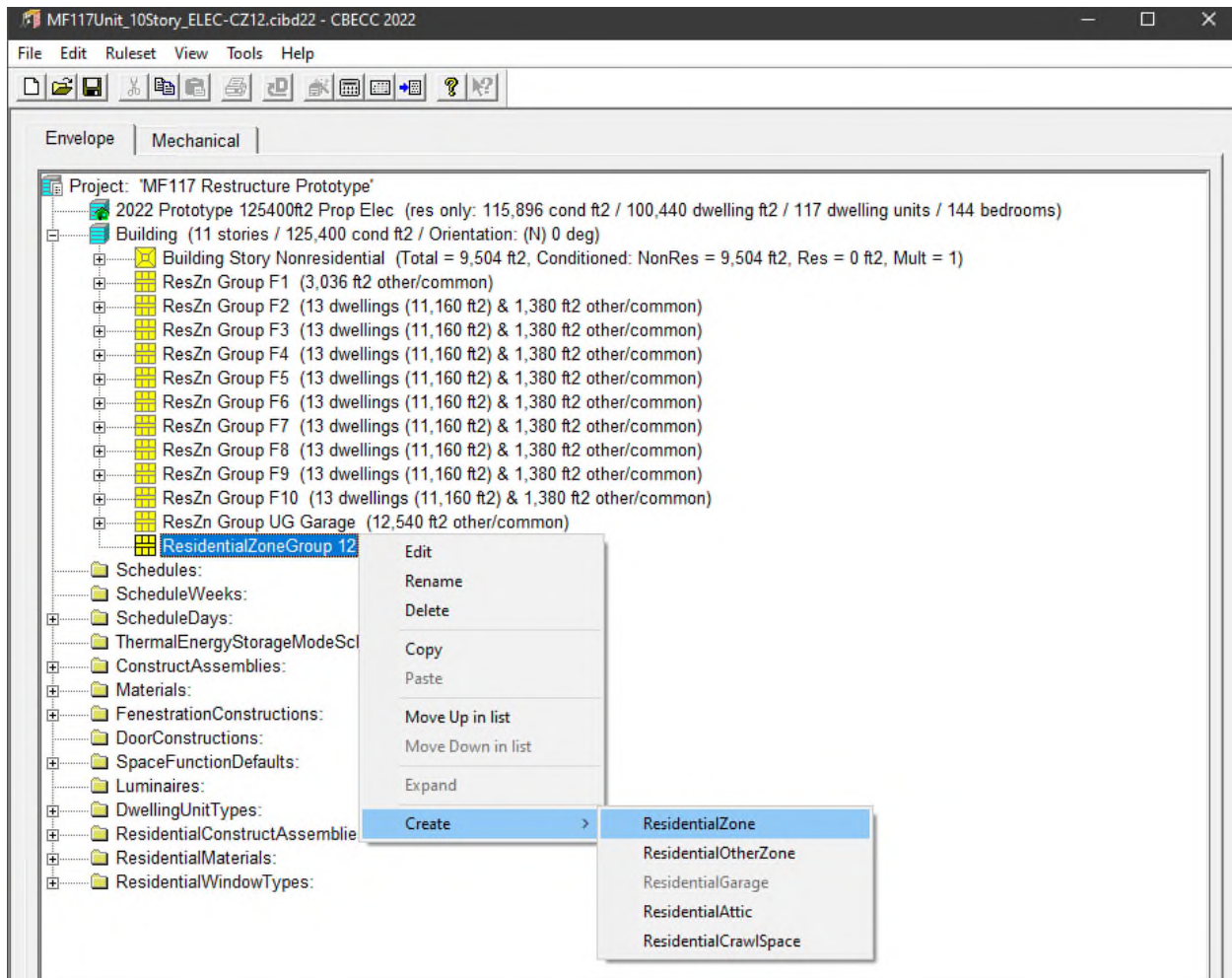


The image shows a software dialog box titled "Building Model Data". It has a tab labeled "Attic Data". Inside the dialog, there are two input fields: "Attic Name" with the text "ResidentialAttic 1" and "Area" with the value "0 ft2". An "OK" button is located at the bottom right corner of the dialog box.

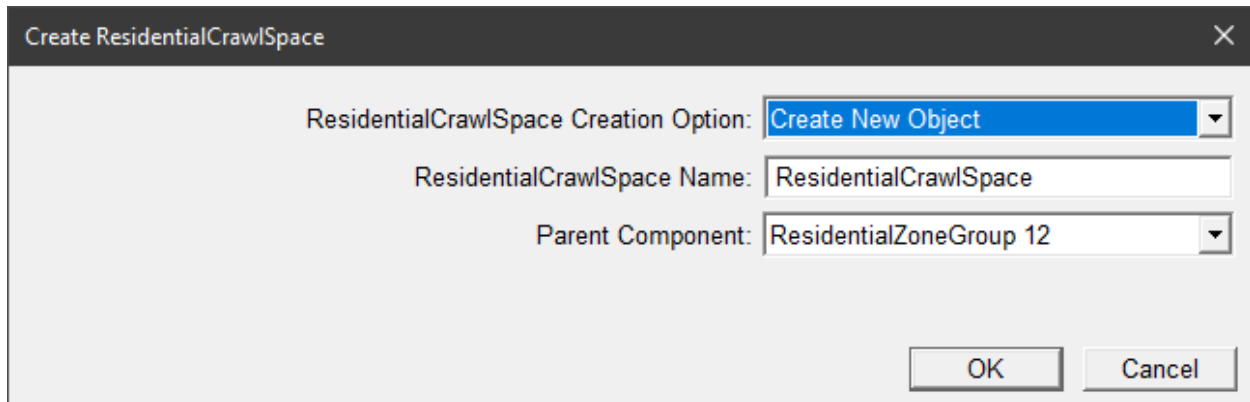
Fill in all the required inputs and Click **OK**

Creating a Residential Crawl Space

On the **Envelope** Tab, right-click on the **ResidentialZoneGroup** Object that you created and select **Create > ResidentialCrawlSpace**

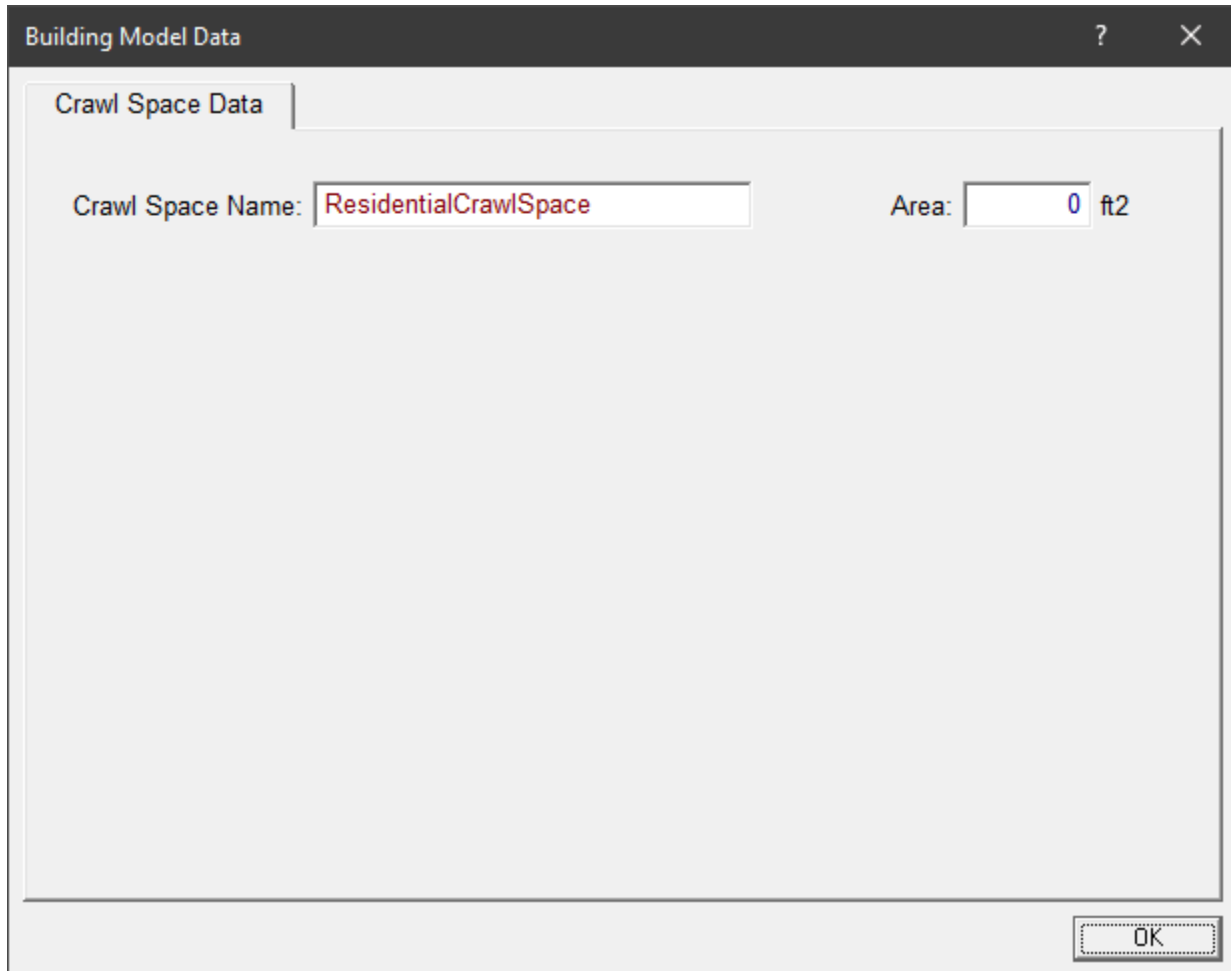


This will bring up a Create **ResidentialCrawlSpace** dialog box as shown below.



Enter the **Name** for the **Residential Crawl Space**. Click **OK**.

The **Crawl Space Data** Screen dialog box will appear.

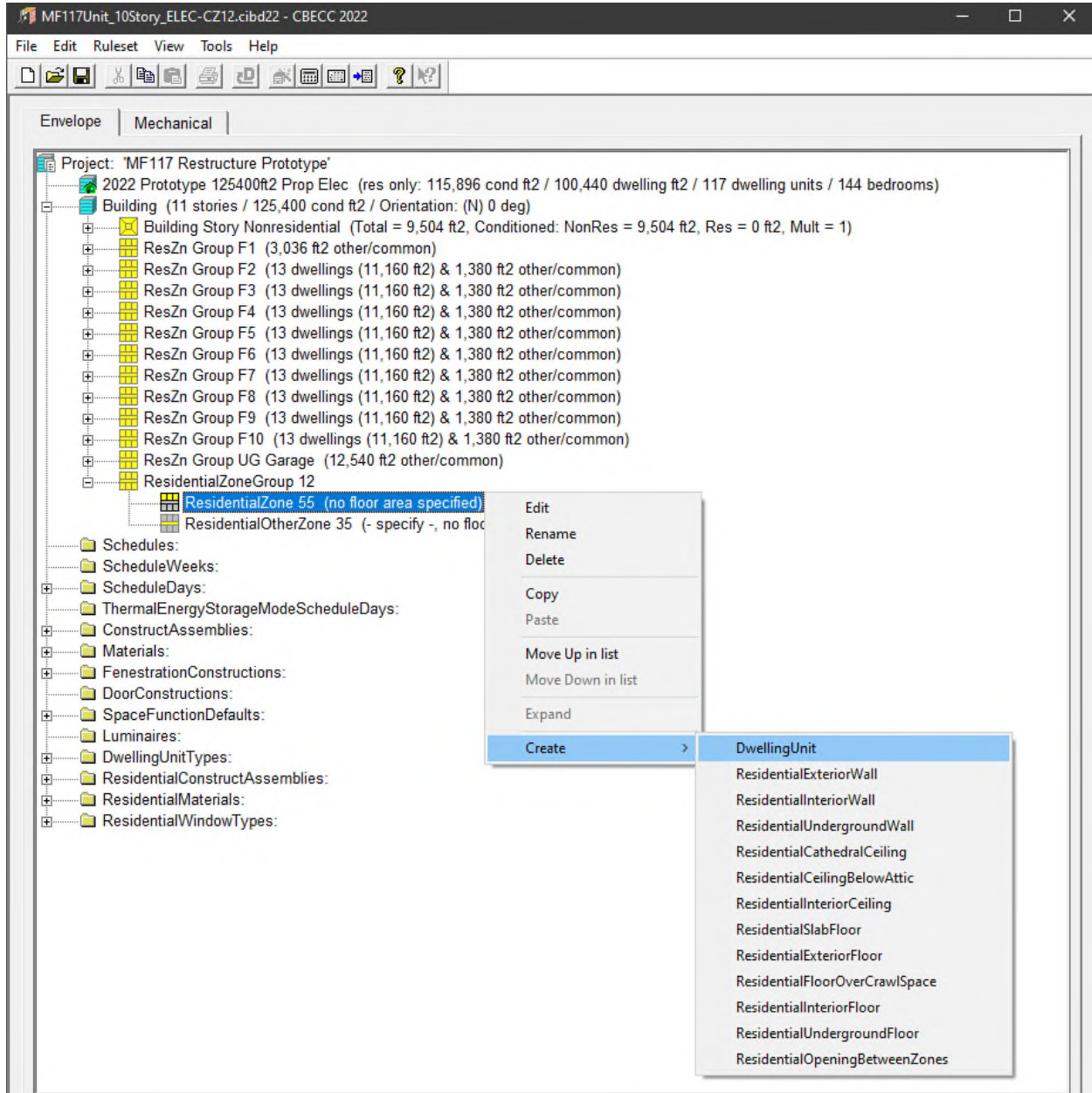


The screenshot shows a dialog box titled "Building Model Data" with a "Crawl Space Data" tab. The dialog contains two input fields: "Crawl Space Name" with the text "ResidentialCrawlSpace" and "Area" with the value "0 ft2". An "OK" button is located at the bottom right of the dialog.

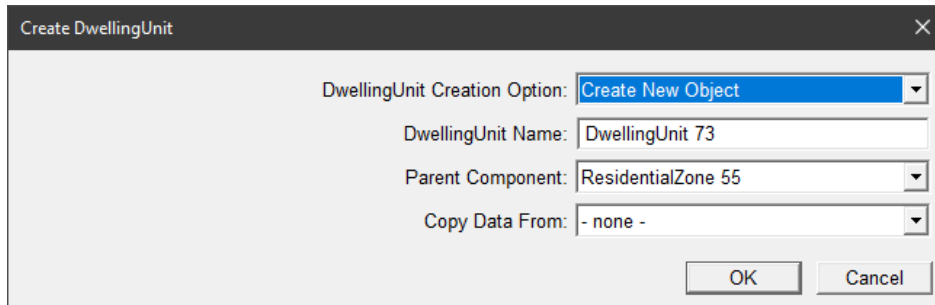
Fill in all the required inputs and Click **OK**

Creating a Dwelling Unit (child object) for Residential Zone.

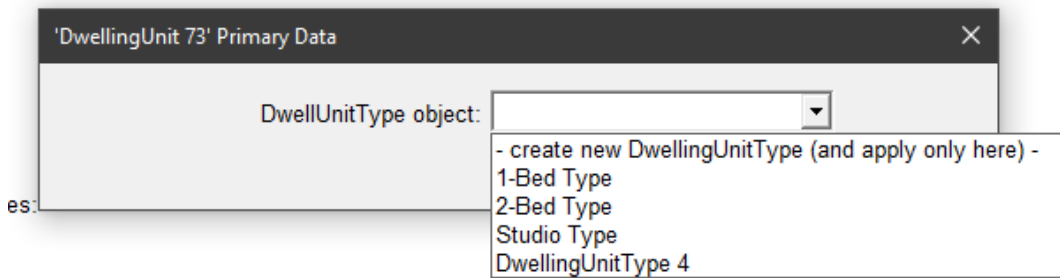
On the **Envelope** Tab, right-click on the **ResidentialZone** Object that you created and select **Create > DwellingUnit**



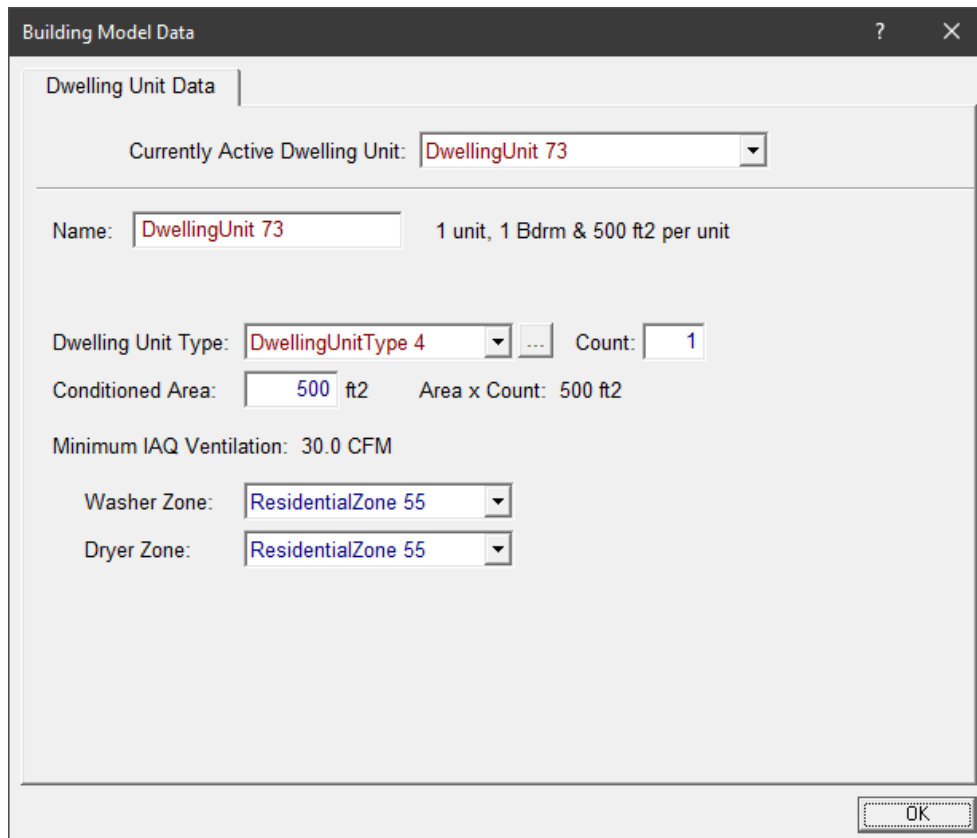
This will bring up a Create **DwellingUnit** dialog box as shown below.



Enter the **Name** for the **Dwelling Unit**. Click **OK**. The **DwellingUnit Primary Data** Screen dialog box will appear.



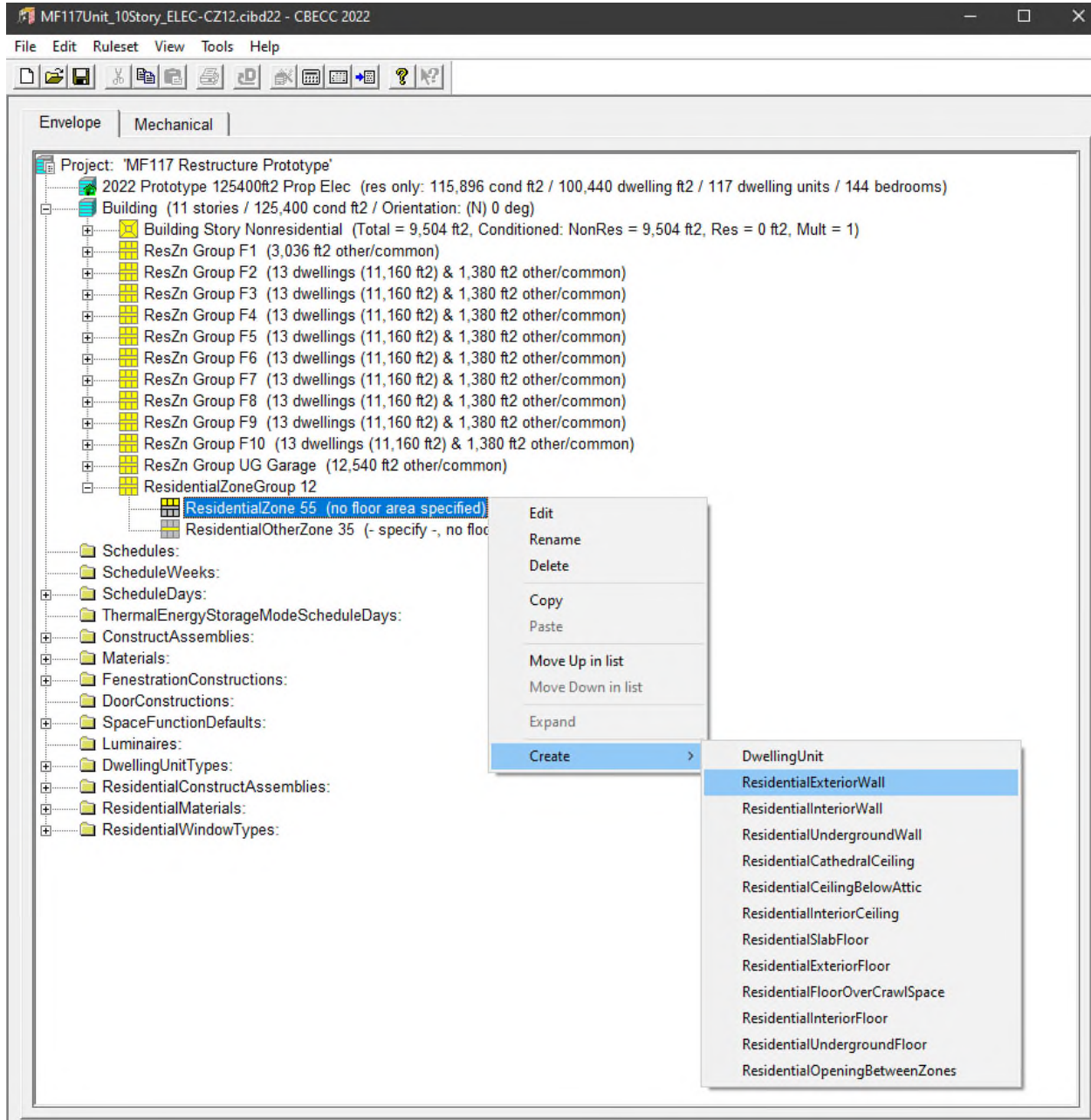
Assign the appropriate Dwelling Unit Type that you created earlier to the Dwelling Unit and Click **OK**.



Fill in all the required inputs and Click **OK**.

Creating a Residential Geometry Surfaces (child objects) for Residential Zone and Residential Other Zone.

On the **Envelope** Tab, right-click on the **ResidentialZone** or **ResidentialOtherZone** Object that you created and select **Create** and it will display all the child surface objects that you can create and assign to the Residential Zone or Residential Other Zone Object.



Select the required child object and follow the dialog on the screen to complete the inputs and assignments for the various child objects to add them to the Zone objects.