Autodesk®

Revit® 2026 Architecture Certified Professional Exam Study Guide

Text and Practice Exam

ELISE MOSS
Autodesk Certified Instructor

AUTODESK
Certified Instructor

Visit the following websites to learn more about this book:

SDC PUBLICATIONS

amazon.com

Google books

BARNES&NOBLE

Modeling and Materials

This lesson addresses the following certification exam questions:

- Create and Modify Architectural Components
  This includes walls, curtain walls, roofs, floor, ceilings, stairs, railings, and columns. Revit 2026 has updated how walls can interact, so I have added some exercises to help you understand the changes.
- Create, Configure and Apply Materials
  Understand how to create a custom material, how to apply a material to a family and how to use the Split Face and Paint tools
- Configure Rooms
  Modify room parameters and understand how to assign room boundaries
- 3D Parametric Families
  Understand how to select the correct template when creating a family, how reference lines and planes are used to control geometry, how to manage visibility/graphic overrides, how nested families operate, how to define and leverage parameters
- Topography
  Revit 2026 has updated how topography is created and modified. However, the exam may still use older terminology and methods. You need to be familiar with toposurfaces and toposolids. You also need to know how to create topography from a linked file.
- Model Groups
  Demonstrate how to create and modify model groups

Users should be able to understand the difference between a hosted and non-hosted component. A hosted component is a component that must be placed or constrained to another element. For example, a door or window is hosted by a wall. You should be able to identify what components can be hosted by which elements. Walls are non-hosted. Whether or not a component is hosted is defined by the template used for creating the component. A wall, floor, ceiling or face can be a host.

Some components are level-based, such as furniture, site components, plumbing fixtures, casework, roofs and walls. When you insert a level-based component, it is constrained to that level and can only be moved within that infinite plane.

Components must be loaded into a project before they can be placed. Users can pre-load components into a template, so that they are available in every project.

Users should be familiar with how to use Element and Type Properties of components in order to locate and modify information.

There are three kinds of families in Revit Architecture:
- system families
- loadable families
- in-place families

System families are walls, ceilings, stairs, floors, etc. These are families that can only be created by using an existing family, duplicating, and redefining. These families are loaded into a project using a project template. You can copy system families from one project to another using the Transfer Project Standards tool.

Loadable families are external files. These include doors, windows, furniture, and plants.

In-place families are components that are created inside of a project and are unique to that project.
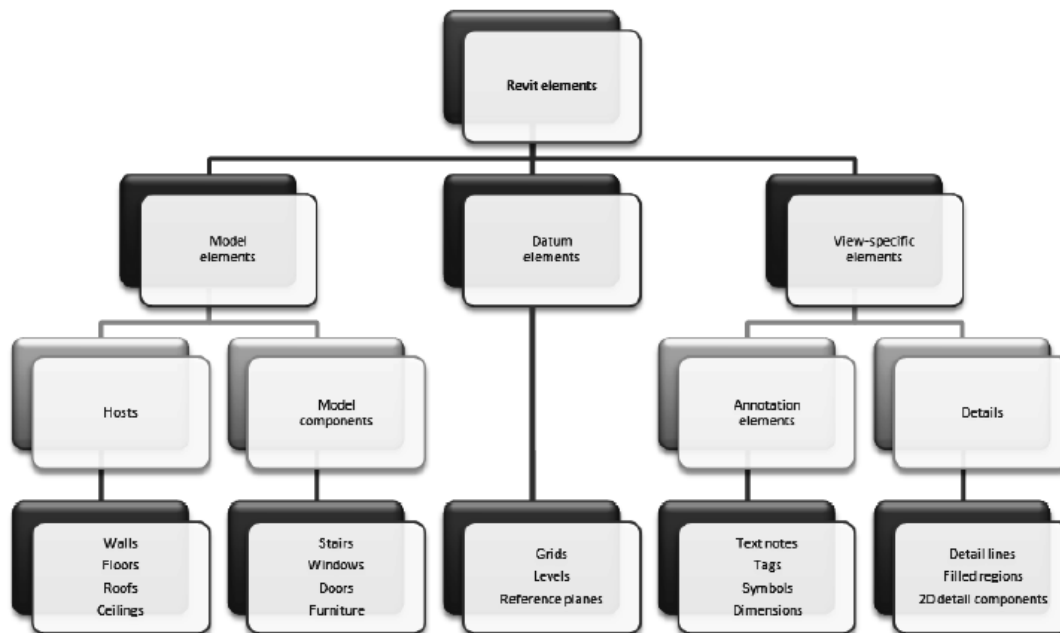
Revit elements are separated into three different types of elements: Model, Datum and View-specific. Users are expected to know if an element is model, datum or view specific.

Model elements are broken down into categories. A category might be a wall, window, door, or floor. If you look in the Project Browser, you will see a category called Families.

If you expand the category, you will see the families for each category in the current project. Each family may contain multiple types.
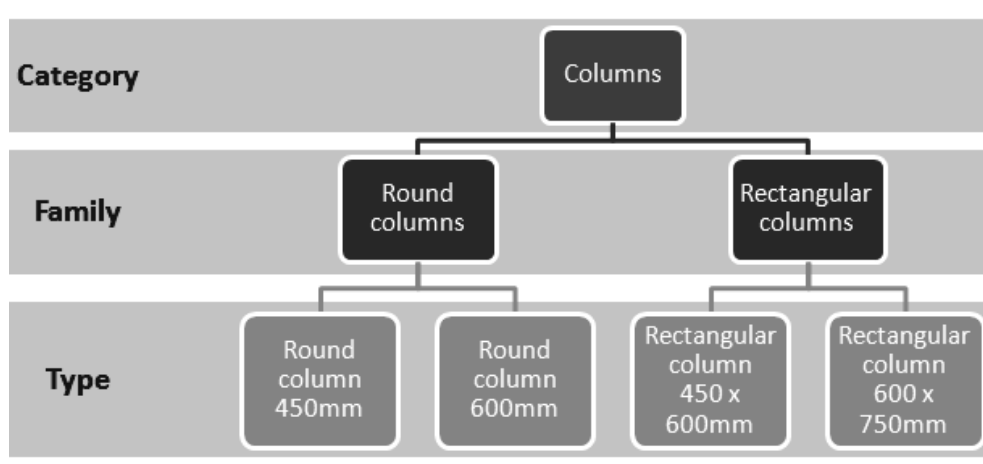
Every Revit file is considered a Project. A Revit project consists of the Project Environment, components, and views. The Project Environment is managed in the Project Browser.
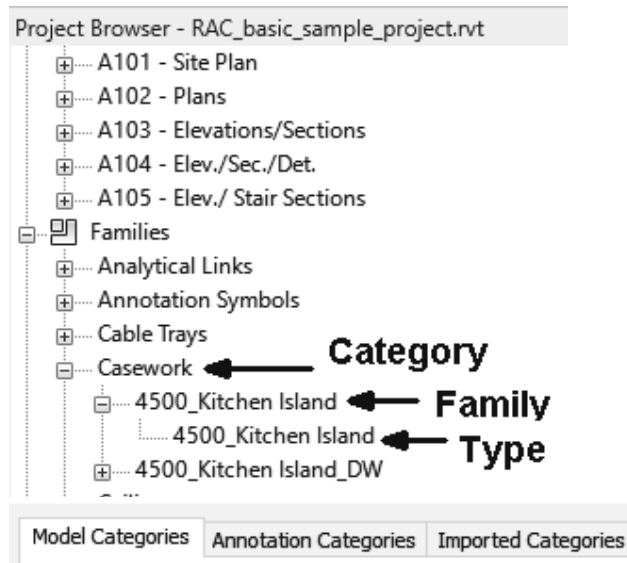
There may be one question on the exam asking you to describe the hierarchy of elements in a Revit project.

Elements are organized by Category, then Family, then Type, then Instance. This is easier to visualize if you look in the Project Browser.

If you look in the Visibility/Graphics Overrides dialog, elements are divided into Model Categories and Annotation Categories.

You should be able to identify whether an object is a model element or an annotation element.

One way to think of it is that model elements are actual physical items. If you walk through a building, you can see a door or column or floor. These are all model elements. If you walk through a building, you don't see door tags, grids, or level lines. These are annotation elements.

Walls

Users will need to be familiar with the different parameters in walls. The user should also know which options are applied to walls and when those options are available.

Walls are system families. They are project-specific. This means the wall definition is only available in the active project. You can use Transfer Project Standards or Copy and Paste to copy a wall definition from one project to another.

On the Professional exam, you may be shown an image of a wall and asked to identify different wall properties.

Just as roofs, floors, and ceilings can consist of multiple horizontal layers, walls can consist of more than one vertical layer or region.

You can modify a wall type to define the structure of vertically compound walls using layers or regions.

Revit has several different wall types: Basic, Compound, Stacked, and Curtain. Expect one question on Basic walls, one question on Stacked walls, and one question on Curtain walls.

A Basic Wall is just what it sounds like, the standard "out of the box" wall style. This wall type may have several layers. For example, a brick exterior wall with a brick exterior layer, an air gap layer, a stud layer, an insulation layer, and a gypsum board layer.

A Compound wall is similar to a Basic wall. It also has layers, but one or more layers is divided into one or more regions, with each region being assigned a different material—for example, a wall that has an exterior layer that has concrete at the bottom and brick at the top.

A Stacked wall is two or more basic and/or compound walls that are stacked on top of each other. While Basic and Compound walls have a uniform thickness or width defined by the layers, a Stacked wall can have a variable thickness or width.

A Curtain wall is defined by a curtain grid. Mullions can be placed at the grid lines. Panels are placed in the spaces between the grid lines.

Exercise 1-1
Wall Options
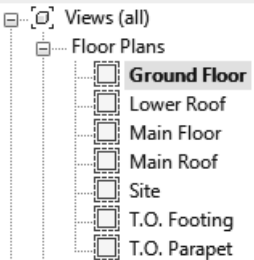
Drawing Name: **basic_plan.rvt**
Estimated Time to Completion: 10 Minutes

Scope
Exploring the different wall options

Solution

1.

Activate the **Ground Floor** floor plan.

2.
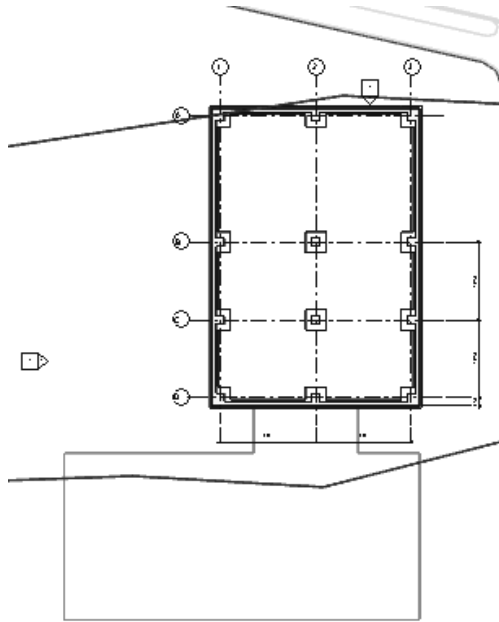
Zoom into the area where the green polygon is.

3.
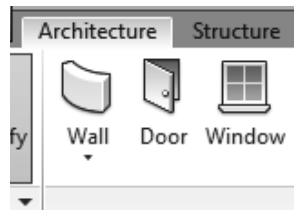
Select **Wall** from the Architecture ribbon.

4.
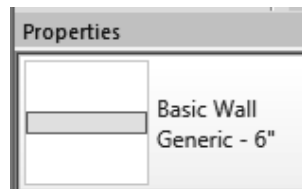
Set the Wall Type to **Generic – 6″** in the Properties pane.

5.
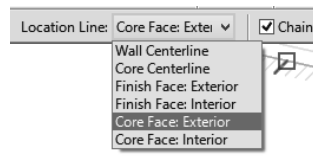
Set the Location Line to **Core Face: Exterior**.

6.
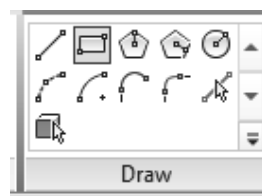
Select the **Rectangle** tool on the Draw panel.

7.
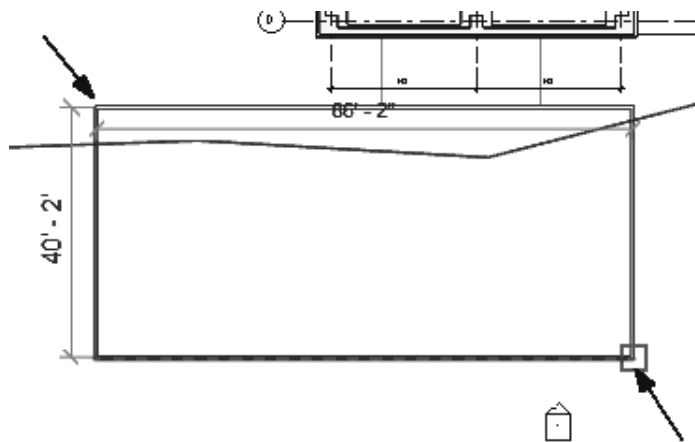
Select the two points indicated to place the rectangle.

8.
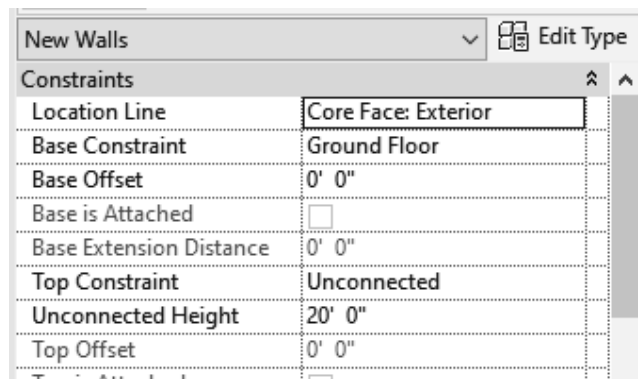
Notice that if the Top Constraint is set to Unconnected, you can define the Unconnected Height.

9. Close the file without saving.

Attaching Walls

After placing a wall, you can override its initial top and base constraints by attaching its top or base to another element in the same vertical plane. By attaching a wall to another element, you avoid the need to manually edit the wall profile when the design changes.

The other element can be a floor, a roof, a ceiling, a reference plane, or another wall that is directly above or below. The height of the wall then increases or decreases as necessary to conform to the boundary represented by the attached element.

You can detach walls from elements as well. If you want to detach selected walls from all other elements at once, click Detach All on the Options Bar.

Exercise 1-2
Attaching Walls

Drawing Name: **Attach.rvt**
Estimated Time to Completion: 10 Minutes

Scope
Create a wall section view.
Attach a wall to a roof or floor.

Solution

1.   Open *Attach.rvt*.

2.   Activate Level 2 Floor Plan.

       Views (all)
         Floor Plans
           Concrete Floors
           Level 1
           Level 1 - Room Legend
           Level 2
           Site

3.   *Place a wall section as shown.*
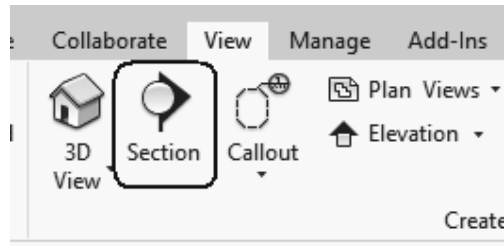
Go to the **View** ribbon.
Select the **Section** tool.

4.   Set the view type to **Wall Section**.
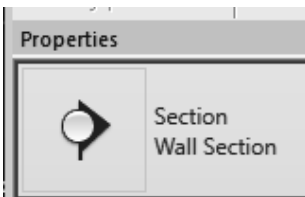
5.
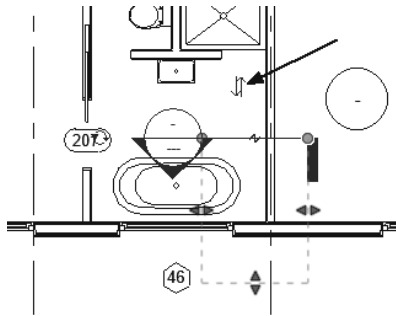
The first point selected will place the section head.
The second point selected will place the section tail.

Use the Flip controls if needed to orient the section head to face down/south.

Double left click on the section head to open the section view.

6.
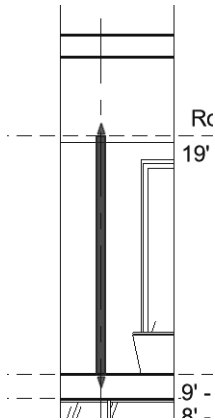
Select the wall on Level 2.

7.
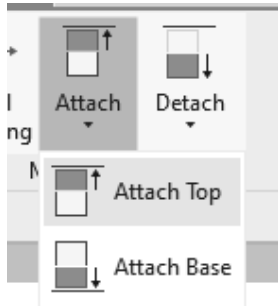
Select **Attach Top** from the ribbon.

8.
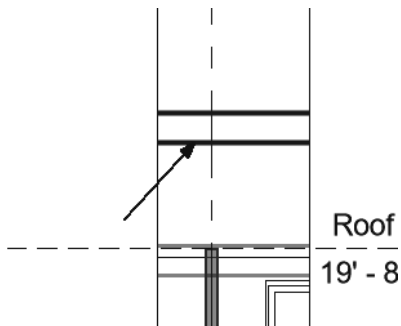
Select the roof.

9.
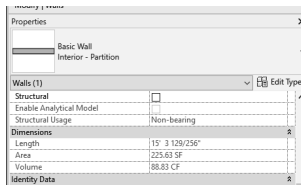
What is the volume of the wall after it is attached to the roof?

Select the wall and then go to the Properties panel to determine the correct volume.
It should be 88.83 CF.

10.

Select the wall on Level 1.
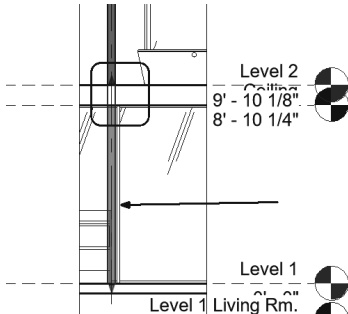
Note that the wall goes through the floor on Level 2.
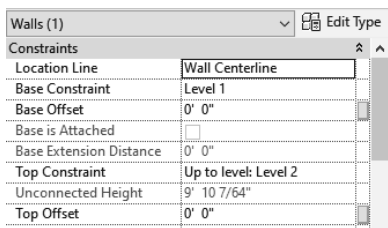
Check the Properties palette and note that the Top Constraint is set to Level 2 and the Unconnected Height is grayed out.

11.
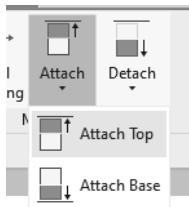
Select **Attach Top** on the ribbon.

12.
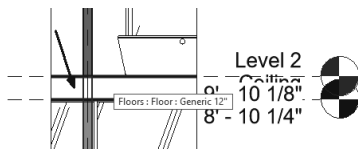
Select the Level 2 floor.

13.
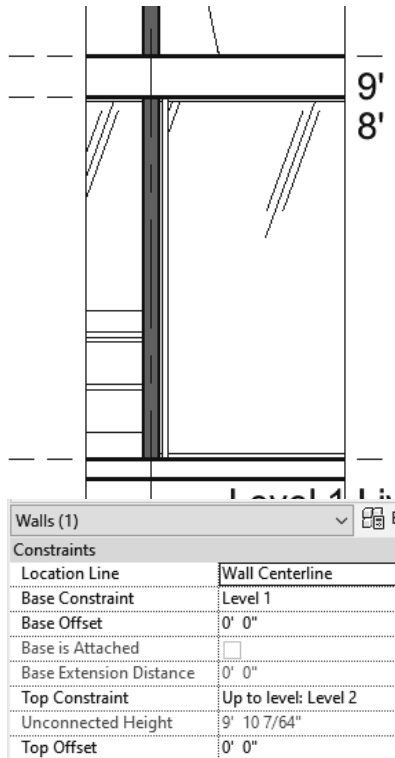
The wall adjusts.

Note that the Top Constraint and Unconnected Height values did not change.

Close the file without saving.

Walls (1)	
Constraints	
Location Line	Wall Centerline
Base Constraint	Level 1
Base Offset	0' 0"
Base is Attached	☐
Base Extension Distance	0' 0"
Top Constraint	Up to level: Level 2
Unconnected Height	9' 10 7/64"
Top Offset	0' 0"

Exercise 1-3

Stacked Walls

Drawing Name: **Footing.rvt**
Estimated Time to Completion: 10 Minutes

Scope
Defining a stacked wall.

A stacked wall uses more than one wall type. Stacked walls may have varying widths.

Solution

1. Open *Footing.rvt*.

2.
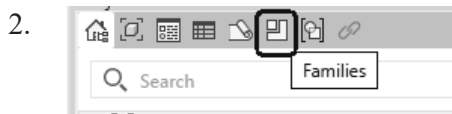
    In the Project Browser:

    Click the **Families** icon.
    This updates the browser to only display families in the project.

3.
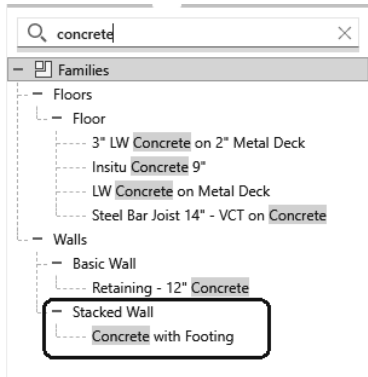
In the search field: type **Concrete**.

Select the **Concrete with Footing** wall type.

4.
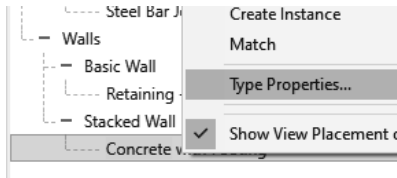
Right click and select **Type Properties**.

5.
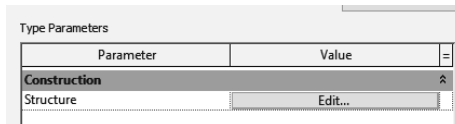
Select **Edit** next to Structure.

6.
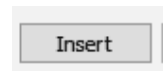
Select the **Insert** button.

7.

Set the type to **Footing 20'** for Layer 1.
Set the Height to **9".**

Note the Retaining – 12" Concrete wall is set to a Variable Height.

8.

Highlight Layer 1.

Use the Down button to move the Footing 20' below the Retaining – 12" Concrete.

9.
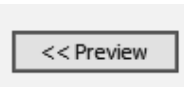
<< Preview

Select the Preview button to expand the dialog and see what the wall looks like.

10.

Family: Stacked Wall
Type: Concrete with Footing
Offset: Core Centerline ∨
  Wall Centerline
  Core Centerline
  Finish Face: Exterior
  Finish Face: Interior
  Core Face: Exterior
  Core Face: Interior

Types
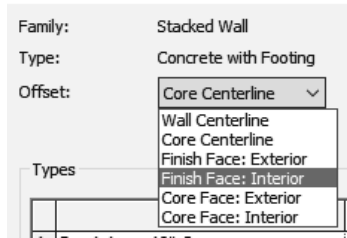
Set the Offset to **Finish Face: Interior**.

11.

Notice how the wall adjusts in the preview so that the interior faces of the walls are now flush.

Click **OK** to close the dialog.

12.

Autodesk Revit 2024
Warning
Highlighted elements are joined but do not intersect.

Show   More Info   Expand >>

Unjoin Elements   OK   Cancel

If you see this dialog box:

Click **Unjoin Elements**.

Click **OK**.

13.
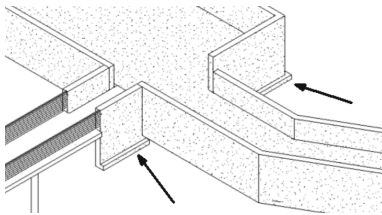
Notice how the stacked walls updated in the model.

Close without saving.

Exercise 1-4
Placing a Cut in a Wall

Drawing Name: **walls.rvt**
Estimated Time to Completion: 20 Minutes

Scope
Placing a horizontal or vertical cut in a wall using Reveal.
Creating a cut in a wall using Edit Profile.

Solution
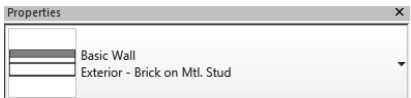
1.   Activate **Level 1** Floor Plan.
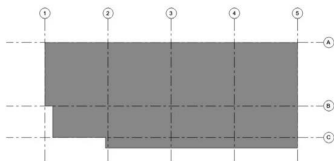
 A floor, some model lines and some grid lines are already placed in the drawing.

2.   Select the **Wall** tool from the Architecture ribbon.
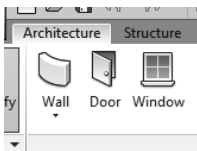
3.   Set the wall type to **Exterior - Brick on Mtl. Stud** using the Type Selector on the Properties pane.
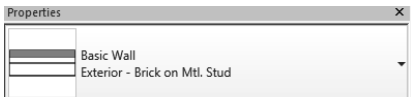
4.   Set the Location Line to **Finish Face: Exterior**.
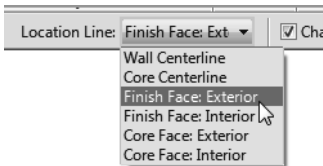
5.

New Walls	∨ 🖳 Edit Type
Constraints	⭐ ⌃
Location Line	Finish Face: Exterior
Base Constraint	LEVEL 1
Base Offset	0' 0"
Base is Attached	☐
Base Extension Distance	0' 0"
Top Constraint	Up to level: LEVEL 2 ⌃
Unconnected Height	Unconnected
	Up to level: LEVEL 1
Top Offset	Up to level: LEVEL 2
Top is Attached	Up to level: ROOF
Top Extension Distance	Up to level: TOP OF PARAPET
Room Bounding	
Related to Mass	☐

Set the Top Constraint to **TOP OF PARAPET**.

Set the Top Offset to **0"**.

6.

Draw

Select the **Rectangle** tool from the Draw panel.

7.

Select the upper left corner as the first point of the green rectangle and the lower right corner as the second point of the green rectangle.

Exit out of the Wall command.

8.

The lines should be aligned to the exterior side of the walls.

Set the Detail Level to **Medium**.

9.

Select a wall.

Note if the exterior side of the wall is oriented correctly. If it needs to be re-oriented, use the Flip Arrows to position it correctly.
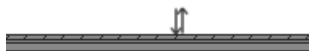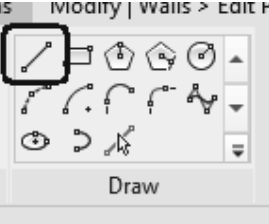
1-15

10. Elevations (Building Elevation)   Switch to a South elevation.
    East
    North
    South
    West

11. Edit Profile   Select the South wall.

    Click **Edit Profile** on the ribbon.

12. ns   Modify | Walls > Edit P   Select the **Line** tool from the Draw Panel.
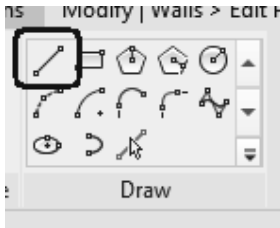
    Draw

13.   Start the line using the endpoint located to the left of Grid 2.

    Draw the line vertically and select an endpoint above Level 2.
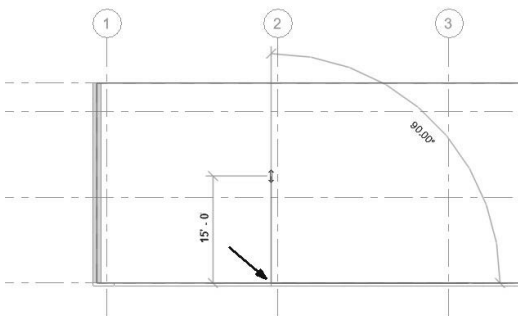
14.

Drag the mouse to the left to place a horizontal line and click outside the building to select the endpoint for the horizontal line.

Exit the line command.
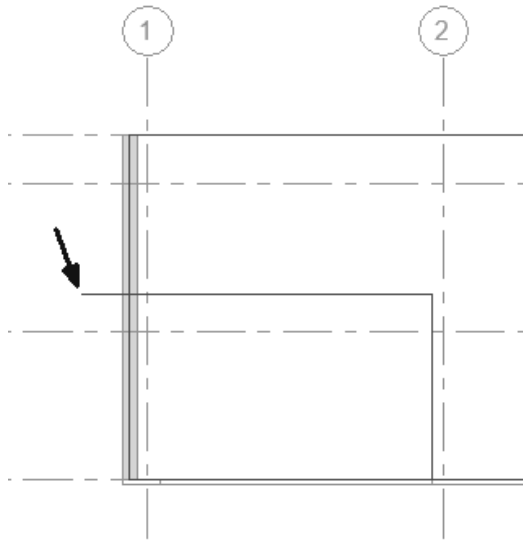
Your profile should look like this.
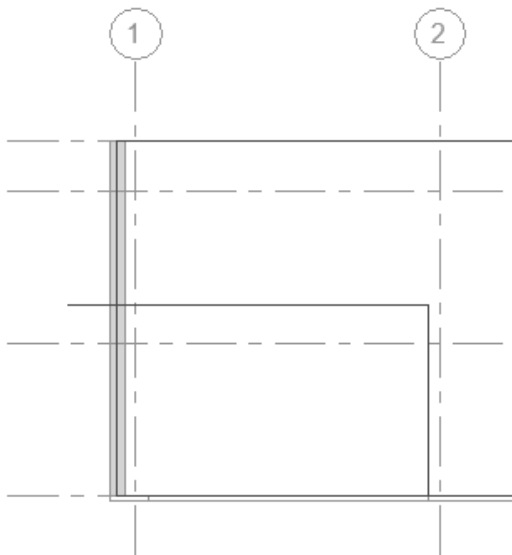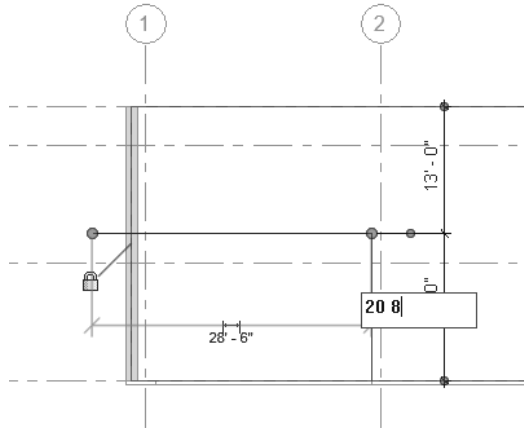
15.   Select the horizontal line.

Modify the temporary dimension to **20' 8"**.

Note that you don't need to use the feet or inches symbols, just place a space between the units.

16.   Select the **TRIM** tool from the ribbon.
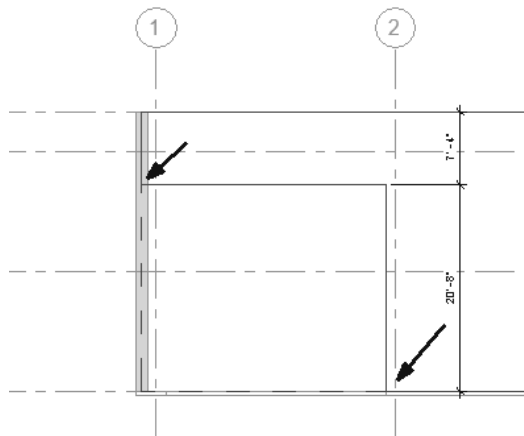
17.   Trim the two corners to create a single continuous wall boundary.

18.   Select the **Green Check** to exit the edit profile mode.

19.   Switch to a **West** elevation.

20. Select the West wall.
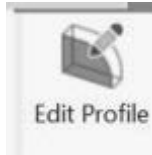
Click **Edit Profile** on the ribbon.

Edit Profile

21. Select the **Line** tool from the Draw Panel.
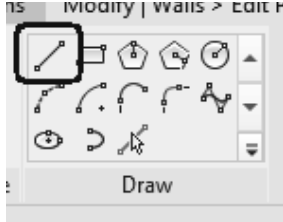
Draw

22. Start the line using the end point located below the Roof level near Grid C.
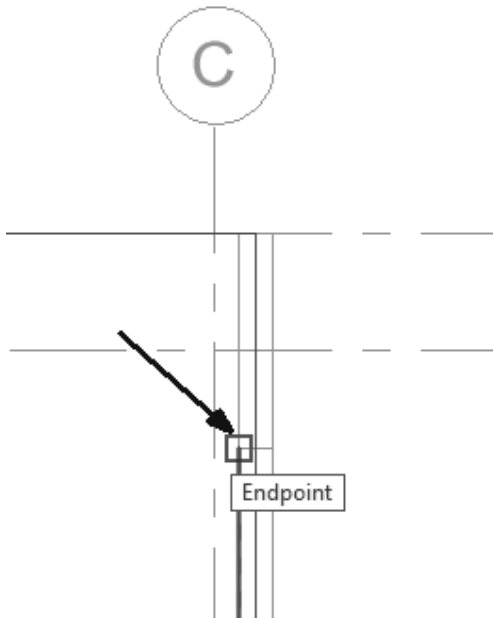
Endpoint

23. Draw a horizontal line across Grid B.
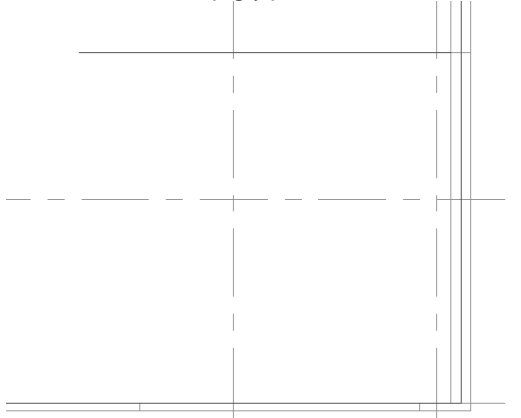
24. Select the endpoint at Level 1 and Grid B and draw a vertical line up to intersect with the horizontal line.
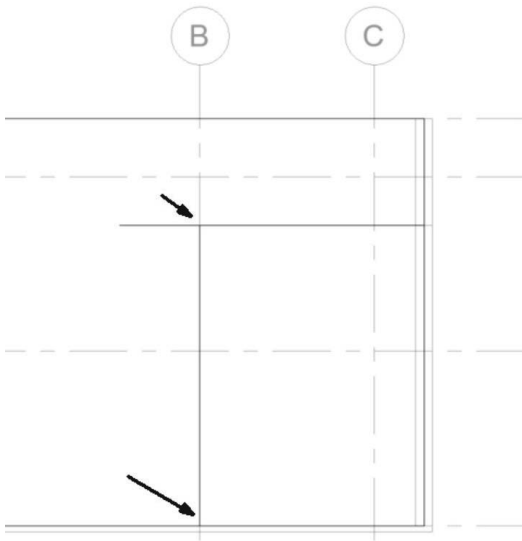
25. Select the **TRIM** tool from the ribbon.

26. Trim the three corners to create a single continuous wall boundary.
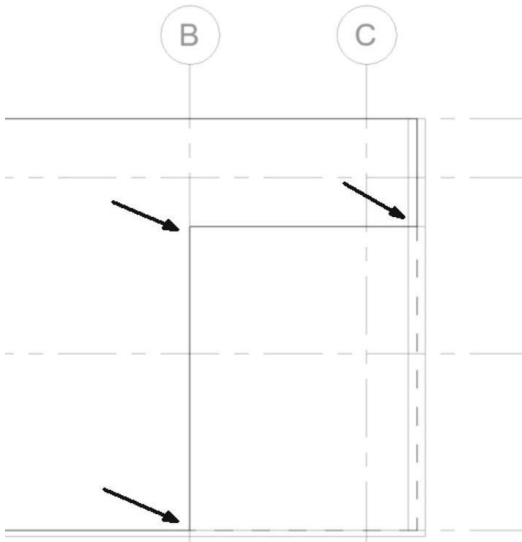
27. Select the **Green Check** to exit the edit profile mode.

Mode
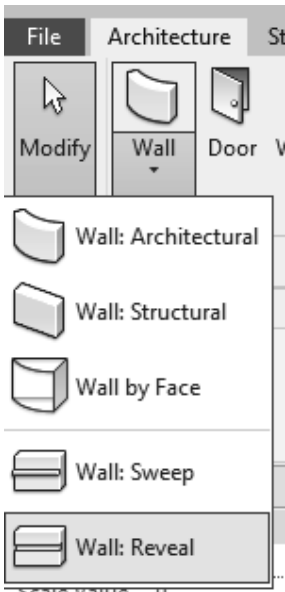
28. 3D Views   Switch to the **3D** view.
{3D}
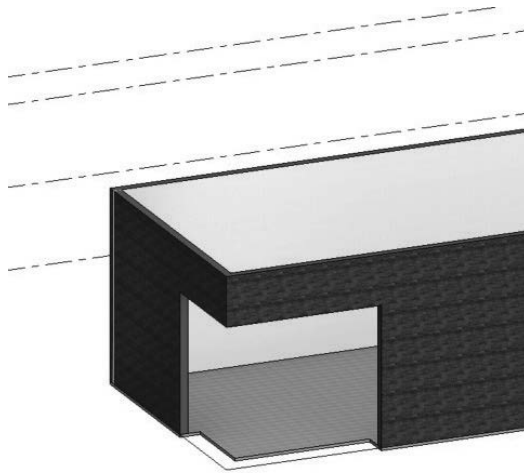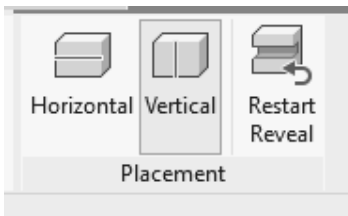
You can see the opening in the wall that was created.

29.

Activate the **South** elevation.

30.

Under Wall, select **Wall: Reveal**.

31.

Enable **Vertical** on the ribbon.

32.

Click on Grid 3 to place the reveal.

Exit the command.
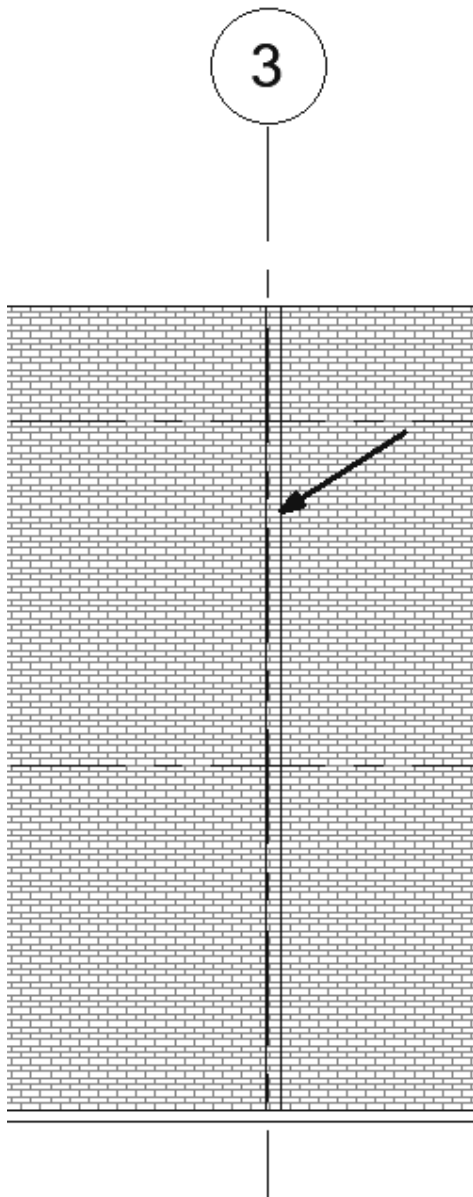
33.

Select the reveal so it is highlighted.

Notice there is a grip located on each end of the reveal.
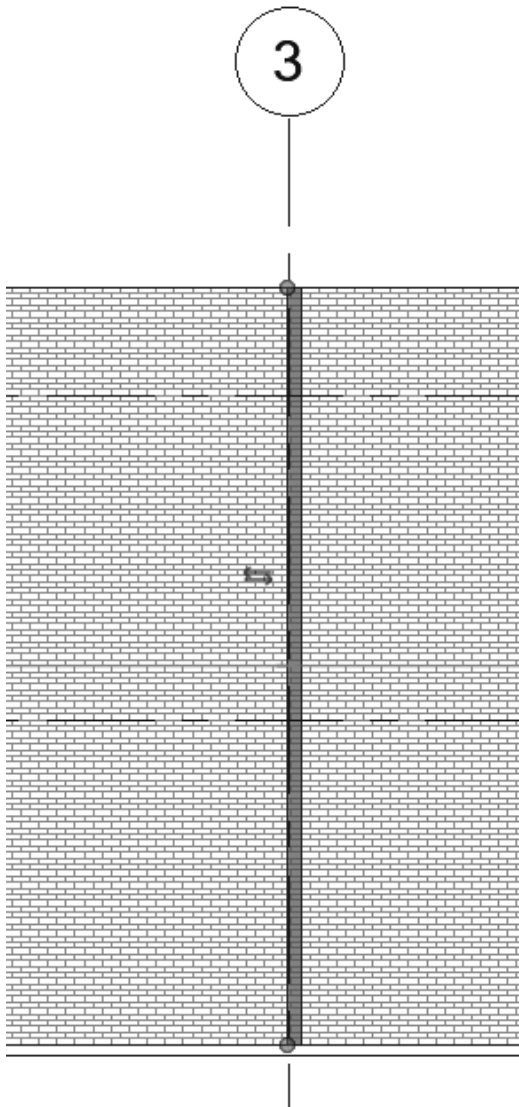
34.

Drag the top end of the reveal to the intersection of Grid 3 and Roof Level.
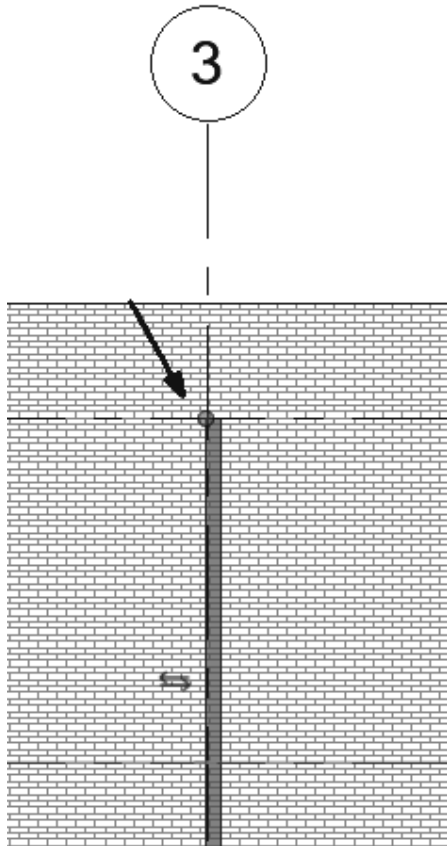
35.

Drag the bottom end of the reveal to the intersection of Grid 3 and Level 2.

Switch to a 3D view.
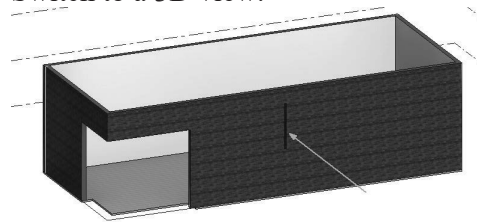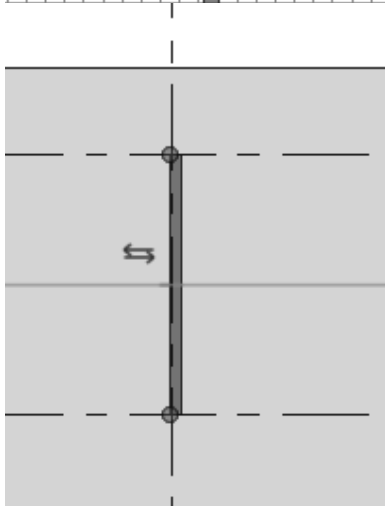
You can see the reveal.

Close without saving.

Curtain Walls

A curtain wall is any exterior wall that is attached to the building structure and which does not carry the floor or roof loads of the building. Like walls, curtain walls are system families.

In common usage, curtain walls are often defined as thin, usually aluminum-framed walls containing in-fills of glass, metal panels, or thin stone. When you draw the curtain wall, a single panel is extended the length of the wall. If you create a curtain wall that has automatic curtain grids, the wall is subdivided into several panels.

In a curtain wall, grid lines define where the mullions are placed. Mullions are the structural elements that divide adjacent window units. You can modify a curtain wall by selecting the wall and right-clicking to access a context menu. The context menu provides several choices for manipulating the curtain wall, such as selecting panels and mullions.

Curtain Walls contains most properties of a basic wall. They have bottom and top constraints and their profile can be modified.
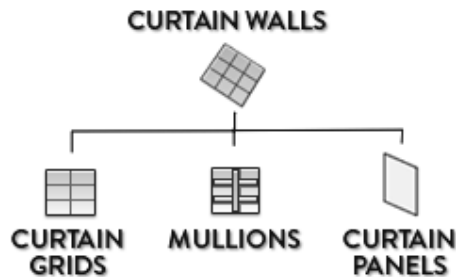
CURTAIN GRIDS
Curtain grids are divisions created on the walls. These divisions can be horizontal or vertical. Curtain grids can be placed in floor plan, elevations, and 3D views.

MULLIONS
Mullions are elements that can be created on each curtain grid segment, as well as on each curtain wall extremity.

CURTAIN PANELS
Curtain panels are rectangular elements located between each curtain grid.

Exercise 1-5
Curtain Walls

Drawing Name: **linear_curtain_wall.rvt**
Estimated Time to Completion: 30 Minutes
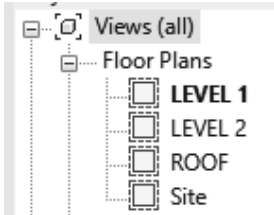
Scope
Placing a Curtain Walls
Adding and removing Curtain Wall Grids
Adding a Curtain Wall Door
Adding and removing mullions
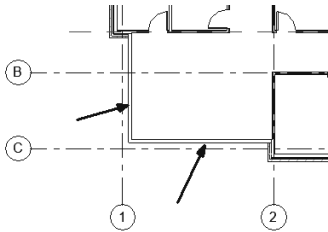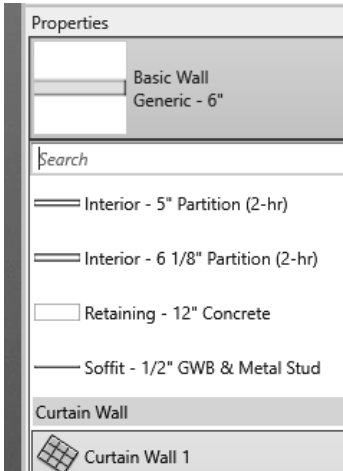
Solution

1. Activate **Level 1** Floor Plan.

2. Select the two walls located between Grids 1 and 2 and Grids B and C.
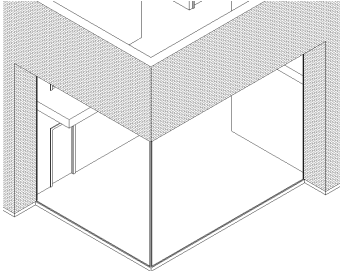
    Hint: Hold down the CTL key to select more than one element.

3. Use the Type Selector to assign **Curtain Wall 1** to the selected walls.
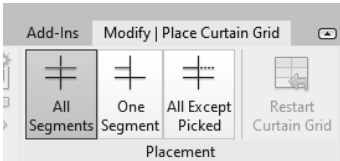
4. 3D Views   Switch to a **3D** View.
{3D}

5. Use the Viewcube to orient the view to a SW perspective view.
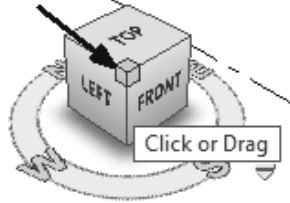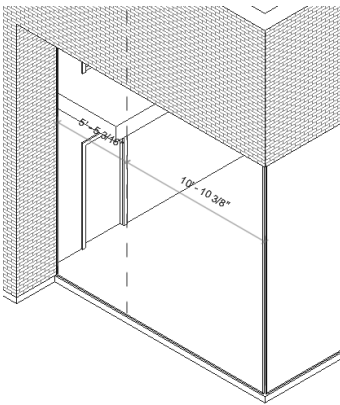
6. Zoom into the Southwest corner of the building model.

7. Select **Curtain Grid** from the ribbon.

Curtain Grid

8. Enable **All Segments** on the ribbon.

All segments applies a curtain grid to the entire glass panel.

9. If you hover the mouse along the bottom of the glass panel on the west side of the building, the mouse will snap to different points. These preset points divide the panel into equal sections.

Click when the value **5' 5 3/16"** is displayed.

10.

MIDPOINT OF CURTAIN PANEL
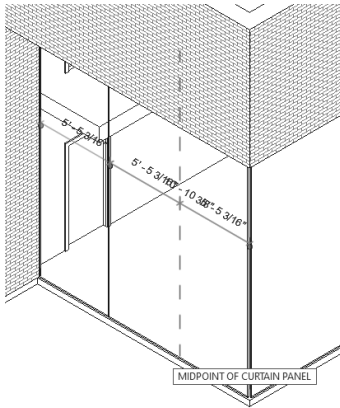
Click a second time to place a curtain grid at the midpoint of the curtain panel.
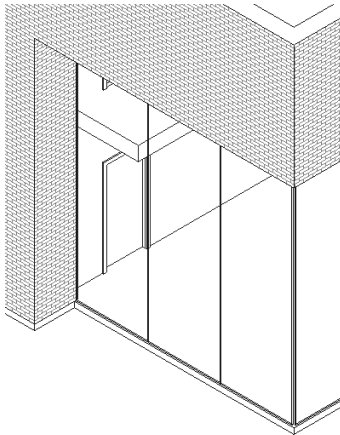
Cancel out of the command.
The glass panel has been divided into three equal panes.

If it is not divided equally, you can select the grid and use the temporary dimension to set the width to 5' 5 3/16".

11.
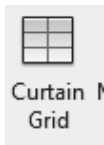
Curtain
Grid

Select **Curtain Grid** from the ribbon.

12.
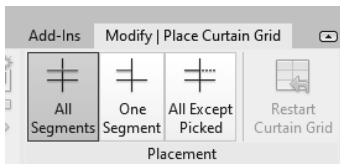
Enable **All Segments** on the ribbon.

All segments applies a curtain grid to the entire glass panel.

13.
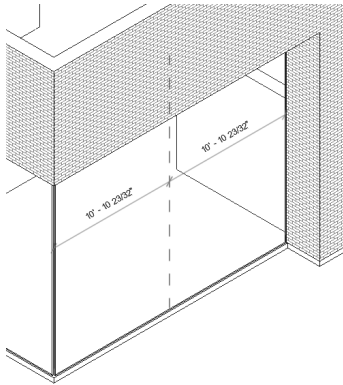
Locate the midpoint of the south curtain wall and select to place a curtain grid.

14.
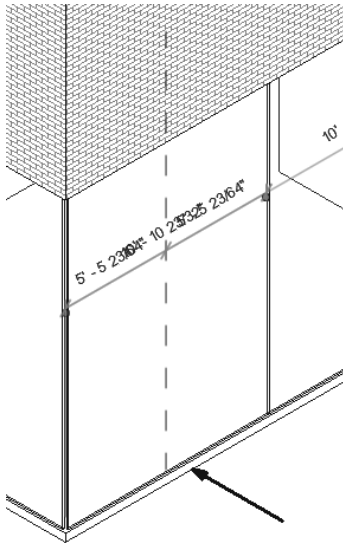
Locate the midpoint of each section of the divided curtain wall to place another curtain grid.
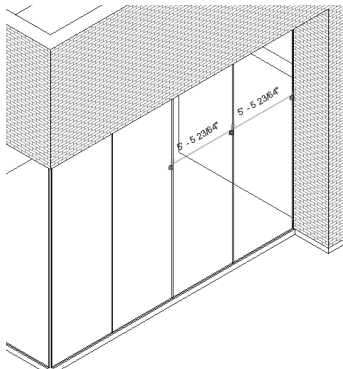
Cancel out of the command so you can inspect your curtain wall.

The south curtain wall should have four vertical glass panels of equal width of 5' 5-23/64".

15.
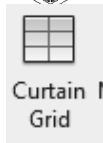
Select **Curtain Grid** from the ribbon.
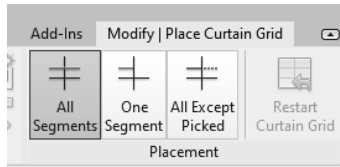
Curtain Grid

16.

Enable **All Segments** on the ribbon.

All segments applies a curtain grid to the entire glass panel.

17.
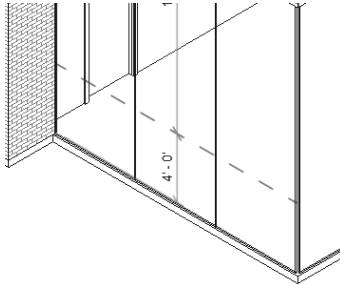
Place a horizontal curtain grid by hovering over the vertical edge of the curtain wall.

Locate the bottom grid 4' above Level 1.

18.
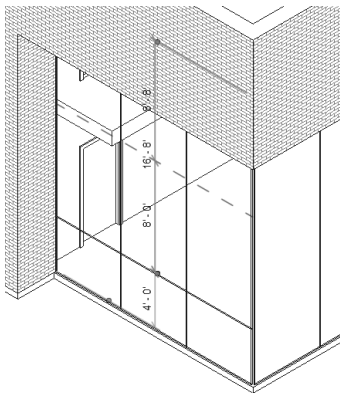
Place a second horizontal grid 8' above first horizontal grid.

19.
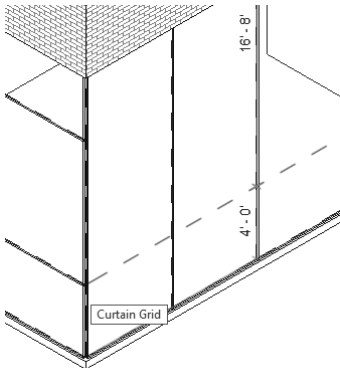
Move over to the west curtain wall.

The curtain grid tool should automatically snap to the horizontal grids placed on the west wall.

Add two horizontal grids at the same distances on the south curtain wall.
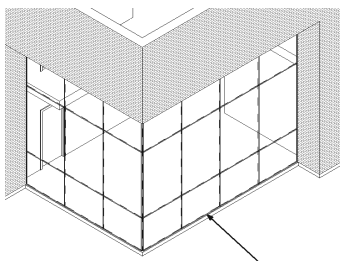
The curtain wall should look as shown.

We will add a door in the area indicated by the arrow, but first we need to define a panel the correct size.

20. Select the **Curtain Grid** tool from the ribbon.
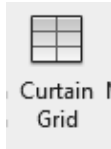
Curtain Grid

21. Set the Placement to **One Segment**.

All Segments | One Segment | All Except Picked

Placement
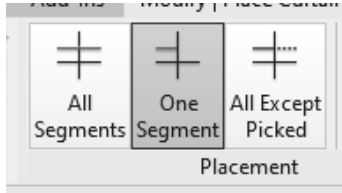
22. Place the segment at the midpoint of the middle glass panel.

ESC out of the command.

4' - 0"

4' - 0"
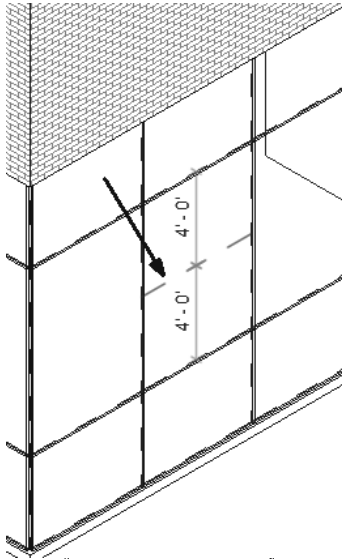
23. Select the lower curtain grid line.
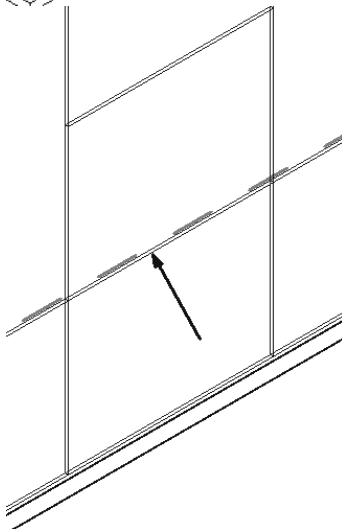
24. Enable **Add/Remove Segments** from the ribbon.
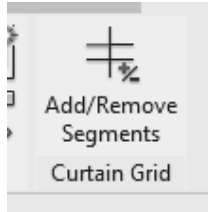
25. Select the segment indicated, then click outside the building.
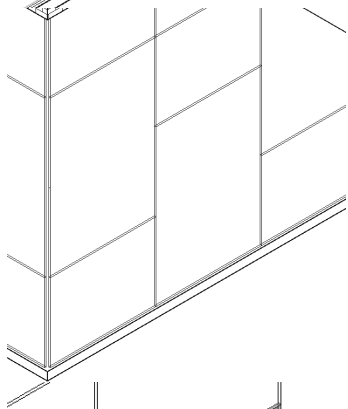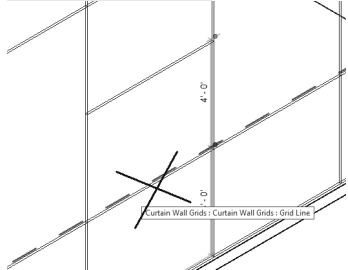
The panel should appear as shown.

26. Select the panel.
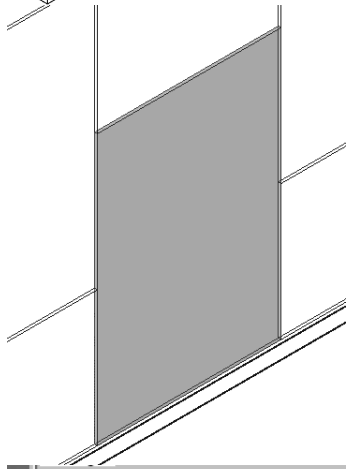
Hover over the bottom of the panel and click the TAB key. This will cycle through the selections. When the panel highlights, left click to select.

27. Use the Type Selector to change the panel to **Door-Curtain-Wall-Double-Storefront.**
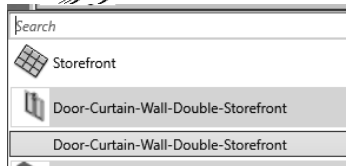
28. Change the Detail Level to **Fine** so you can see the door hardware.
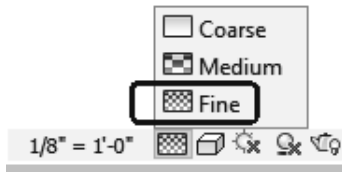
29. Select the Mullion tool from the ribbon.

The placement of mullions is determined by curtain grids. You cannot place a mullion without a curtain grid.

30. Set the Type Selector to **Quad Corner Mullion: 5" x 5" Quad Corner**.
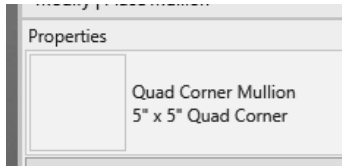
31. Place at the southwest corner where the two curtain walls intersect.
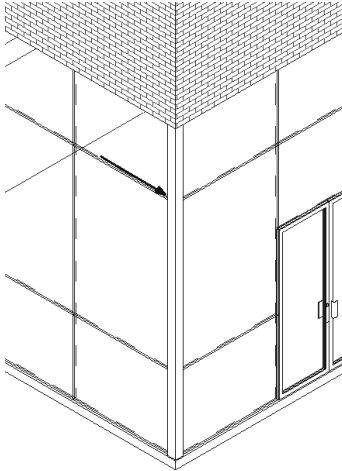
32. Enable **All Grid Lines** on the ribbon.
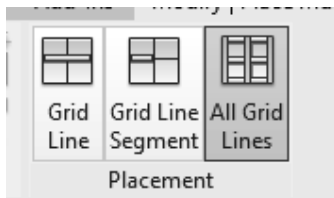
33. Set the Type Selector to **Rectangular Mullion: 2.5" x 5" Rectangular**.
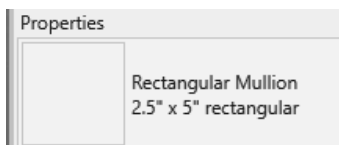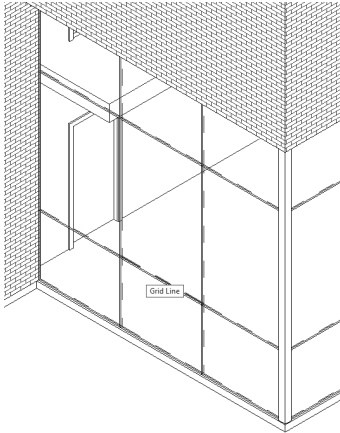
34. Select the grid lines on the west curtain wall.
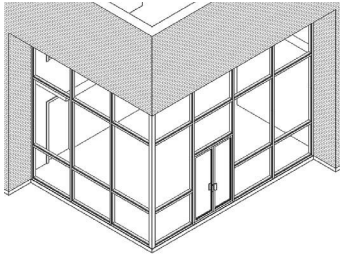
35. Select the grid lines on the south curtain wall.

ESC out of the command.
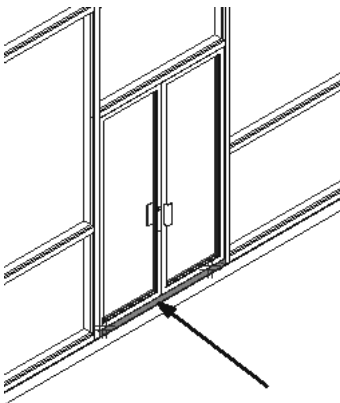
36. Use the TAB key to cycle through selections until the mullion below the door is selected.

Delete the mullion by clicking the DELETE key on the keyboard or using the Delete tool on the ribbon.
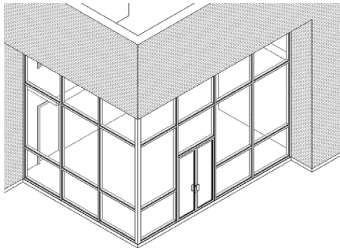
37. The curtain wall should appear as shown.

Save as *ex1-5.rvt*.

Exercise 1-6
Embedded Curtain Walls

Drawing Name: **embedded curtain wall.rvt**
Estimated Time to Completion: 20 Minutes

Scope
Placing a Curtain Wall inside an existing wall
Adding and removing Curtain Wall Grids
Adding a Curtain Wall Door
Adding and removing mullions

Solution

1.
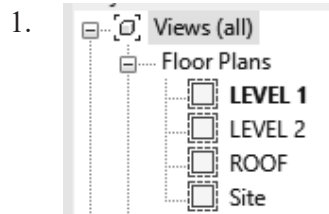
Activate **Level 1** Floor Plan.

We are going to embed a curtain wall in the indicated south wall.

2.

Select the **Wall** tool from the Architecture ribbon.

3.
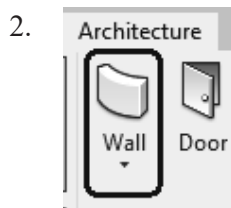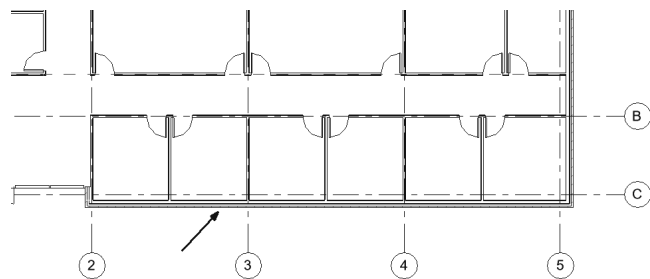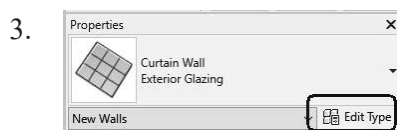
Select the **Curtain Wall: Exterior Glazing** from the Type Selector.

Click **Edit Type**.
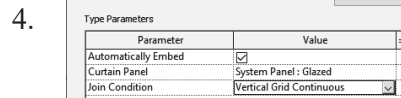
4. Enable **Automatically Embed**.
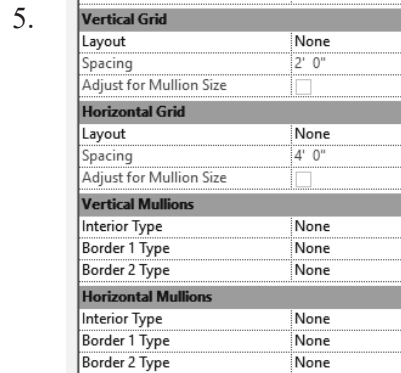
Set the Curtain Panel to **System Panel: Glazed**.
Set the Join Condition to **Vertical Grid Continuous**.

5. Under Vertical Grid:
Set the Layout to **None**.

Under Horizontal Grid:
Set the Layout to **None**.

Set the Vertical and Horizontal Mullions to **None**.

Click **OK**.
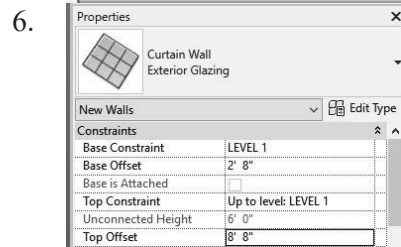
6. In the Properties palette:

Set the Base Constraint to **LEVEL 1**.
Set the Base Offset to **2' 8"**.
Set the Top Constraint to **LEVEL 1**.
Set the Top Offset to **8' 8"**.
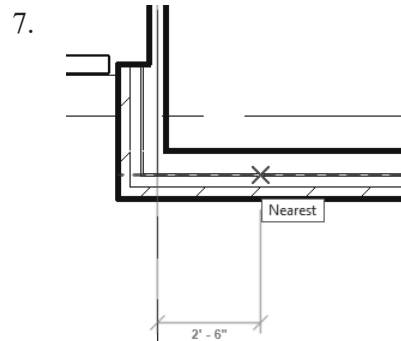
7. Set the start point at **2' 6"** to the right of Grid 2.
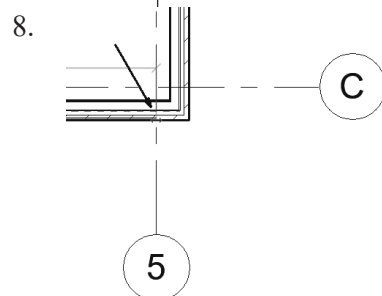
8. Set the end point at Grid 5.

ESC to exit the command.

9. Switch to a South Elevation.
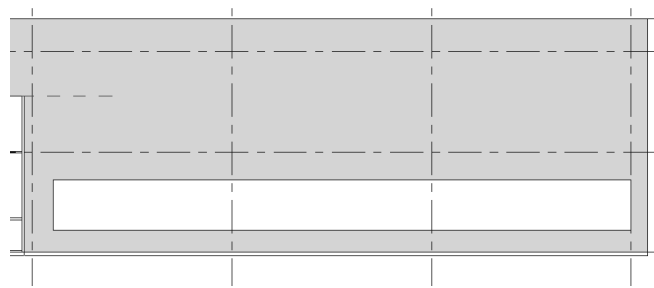
If the curtain wall doesn't appear properly, return to the Level 1 floor plan and check that the curtain wall is oriented properly using the flip arrows.

69' - 6"
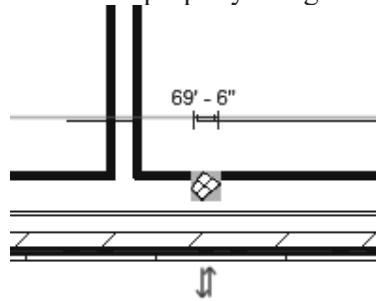
10. Switch to the **LEVEL 1** Floor Plan view.

11. Select **Curtain Grid**.

Enable **All Segments**.

12. Place a curtain grid at the midpoint of each of the interior walls.

Select curtain grid line or edge of curtain wall to insert new grid line through. Use tab to cycle through possible grid lines (direction 1 and 2).

Curtain Grids can be placed in elevations or floor plans.

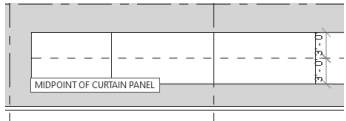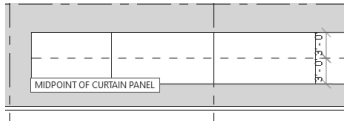13. Switch back to the South elevation.

You should see vertical curtain grids have been placed.

1-37

14. Select **Curtain Grid**.
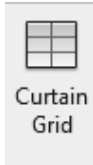
Enable **All Segments**.

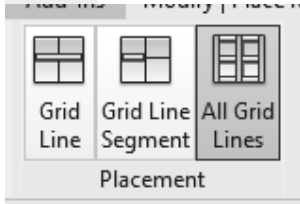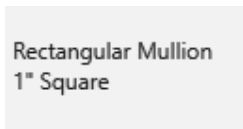15. Place the curtain grid at the horizontal midpoint of the curtain wall.

MIDPOINT OF CURTAIN PANEL

ESC out of the command.

16. Select the **Mullion** tool from the ribbon.

Mullion

17. Enable **All Grid Lines**.

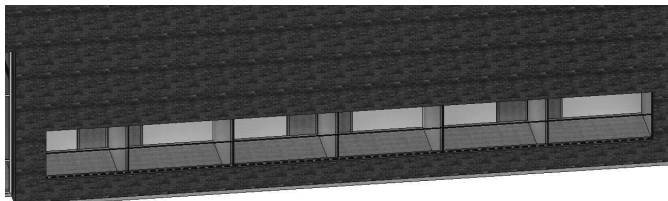Grid Line | Grid Line Segment | All Grid Lines
Placement

18. Rectangular Mullion 1" Square

Select the **Rectangular Mullion: 1" Square** from the Type Selector.

19. Click on one of the curtain grids to place the mullions.

Click ESC to exit the command.

Switch to a 3D view to inspect your embedded curtain wall.

20. If the embedded curtain wall does not create an opening in the south wall, select the south wall, click Edit Profile and then place a rectangle at the location of the curtain wall.

Save as *ex1-6.rvt*.

Auto Join Walls

Revit has the ability to join two adjacent walls into a single wall. Once walls are joined using the Auto Join tool, doors and windows can be added to the walls. If a door or windows are added, it will cut both walls. Auto Join cannot be used with curtain walls or tapered walls.

Exercise 1-7

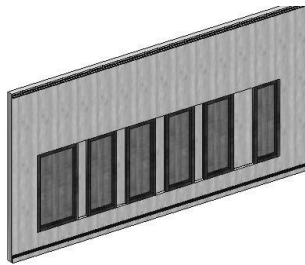# Auto Join Walls

Drawing Name: **Auto Join.rvt**
Estimated Time to Completion: 15 Minutes
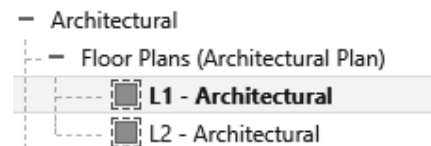
Scope
Using Auto Join to join two walls
Adding a Door to a joined wall

Solution

I created this wainscoting wall. The wall is 910 mm [3 ft] high. I want to add an interior wall and join the two walls and then place a door through both walls.

1.

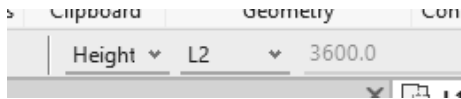Switch to an **L1 floor plan** view.

2.

Select the **Wall** tool from the Architecture ribbon.
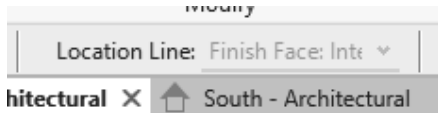
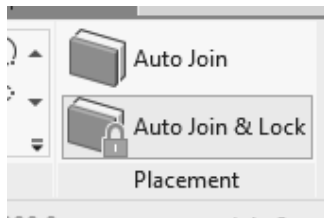| 3.		Select the **Interior – 125mm Partition** wall type.

Properties

Basic Wall
Interior - 125mm Partition

4.		Set the Height to **L2**.

Clipboard Geometry Cont

Height ˅ L2 ˅ 3600.0

5.		Set the Location Line: to **Finish Face: Interior.**

Modify

Location Line: Finish Face: Inte ˅

hitectural ✕ ⌂ South - Architectural

6.		Enable **Auto Join & Lock** on the ribbon.

Auto Join

Auto Join & Lock

Placement

7.		Start on the left side of the existing wall and end at the right end of the existing wall.

START 6800.0 END
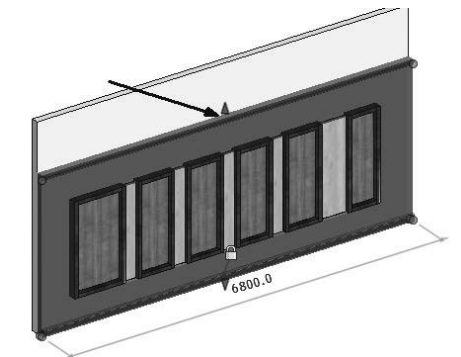
8.		Switch to a **3D** view.

Select the wainscoting wall.

Use the top grip to lower the wall.

6800.0

9.		Return to the **L1** floor plan view.

Set the view to wireframe.

10.		Select the **Door** tool from the Architecture ribbon.
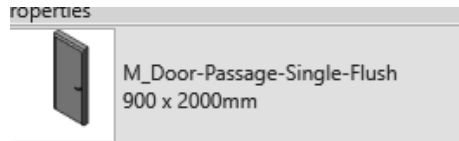
Door

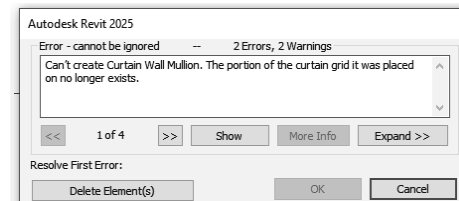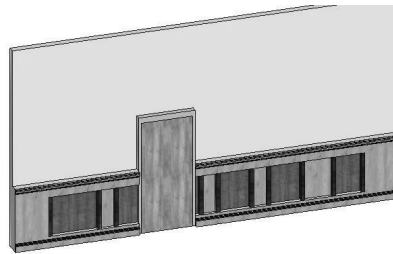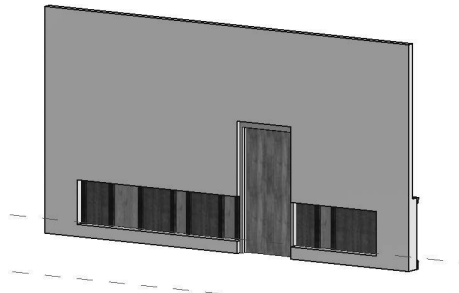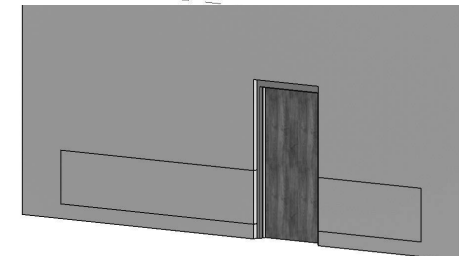|		
11.		Select the **M_Door-Passage-Single-Flush 900 x 2000mm** door.
12.		Place the door in the wall.
13.		Click Delete Element(s).
14.		Switch to a 3D view. Adjust the height of the wainscoting using the grips.
15.		Orbit to the other side of the wall. *Notice that the door made a cut through both walls.* *The embedded curtain wall also made a cut through both walls.*
16.		Place an interior wall to cover up the opening where the wainscoting cut through. **Hint:** *Use the MEASURE tool to adjust the wall height. Use the wall grips to adjust the wall placement.*
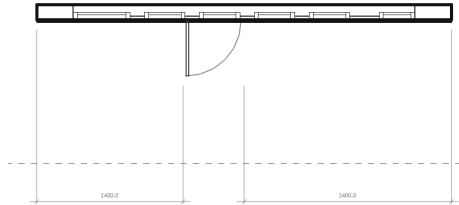
17.
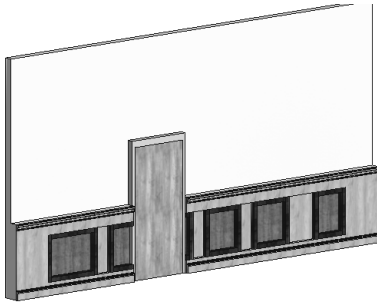
Replace the missing mullions.

Save as *ex1-7.dwg*.

Roofs

Roofs are system families. Roofs can be created from a building footprint, using an extrusion, and from a mass instance (converting a face to a roof).

Roof by footprint

- 2D closed-loop sketch of the roof perimeter

- Created when you select walls or draw lines in plan view

- Created at level of view in which it was sketched

- Height is controlled by Base Height Offset property

- Openings are defined by additional closed loops

- Slopes are defined when you apply a slope parameter to sketch lines

Roof by extrusion

- Open-loop sketch of the roof profile

- Created when you use lines and arcs to sketch the profile in an elevation view

- Height is controlled by the location of the sketch in elevation view

- Depth is calculated by Revit based on size of sketch, unless you specify start and end points.

Roofs are defined by material layers, similar to walls.

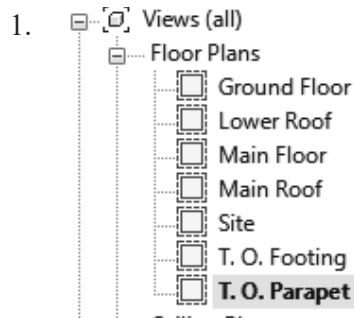# Exercise 1-8
Creating a Roof by Footprint

Drawing Name: **i_roofs.rvt**
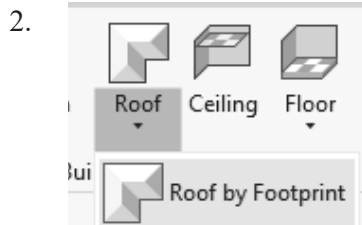Estimated Time to Completion: 10 Minutes
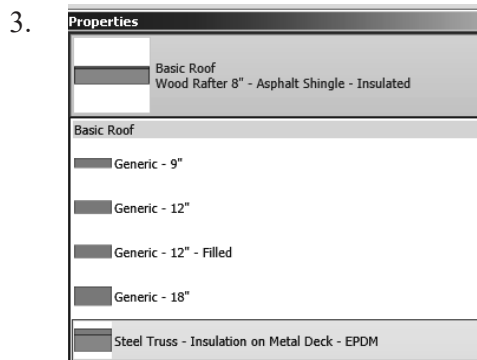
Scope
Create a roof.

Solution

1. Activate the **T.O. Parapet** floor plan.

2. Select **Roof by Footprint** from the Architecture ribbon.

3. Select **Steel Truss - Insulation on Metal Deck - EPDM** using the Type Selector on the Properties panel.
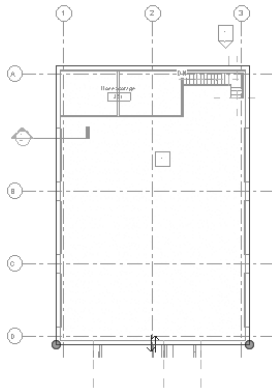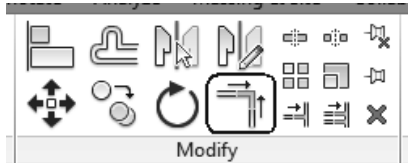
4.   Select **Pick Walls** mode.

5.   On the Options bar,
uncheck **Defines slope**.
Set the Overhang to **0′-0″**.
Uncheck **Extend to Wall Core**.

6.   Select all the exterior walls.

7.   Use the **Trim** tool from the Modify panel to create a closed boundary, if necessary.

8.   Align the boundary lines with the exterior face of each wall.
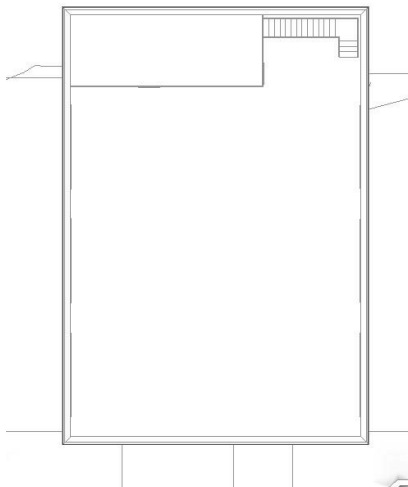
9. Select the **Green Check** on the Model panel to **Finish Roof**.
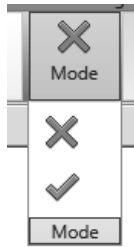
10. Close without saving.

Exercise 1-9
Creating a Roof by Extrusion

Drawing Name: **i_roofs_extrusion.rvt**
Estimated Time to Completion: 30 Minutes

Scope
Create a roof by extrusion.
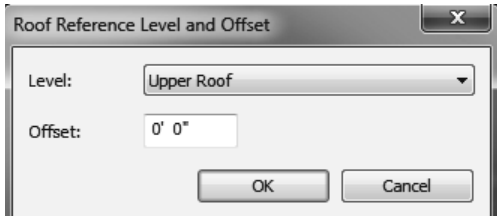Modify a roof.

Solution

1. Activate the **3D view.**

2. Activate the Architecture ribbon.
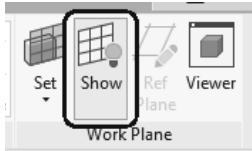Select **Roof by Extrusion** under the Build panel.
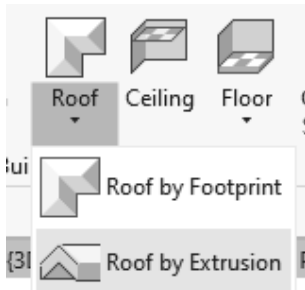
3. Enable **Name**.
Select **Roof Shape** from the list of reference planes.
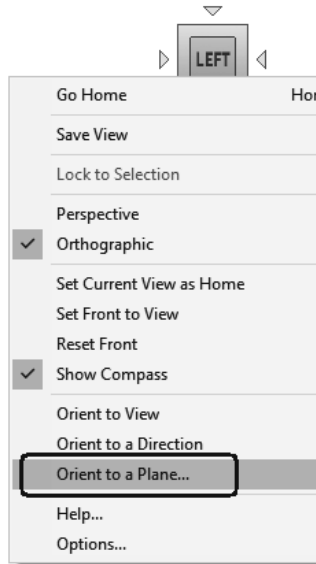Click **OK**.
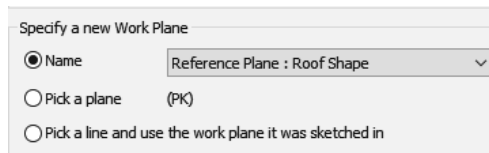
4. Select **Upper Roof** from the list.
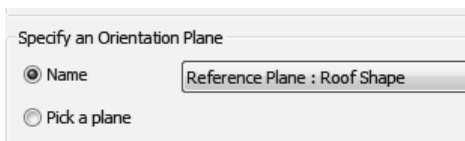Click **OK**.

5. Select the **Show** tool from the Work Plane panel.
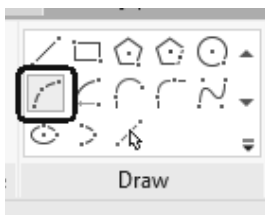This will display the active work plane.

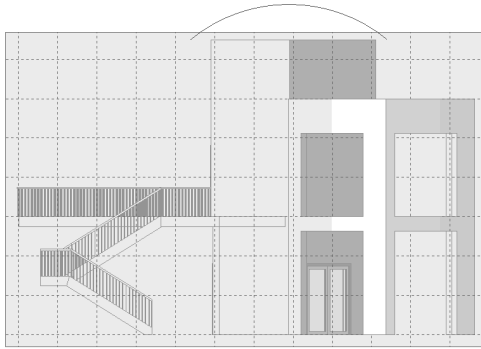6. Right click on the ViewCube's ring.
Select **Orient to a Plane**.

7. Enable **Name**.
Select **Roof Shape** from the list of reference planes.
Click **OK**.

8. Select the **Start-End-Radius Arc** tool from the Draw panel.
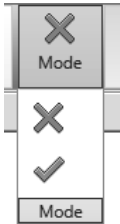
9.

Draw an arc over the building as shown.
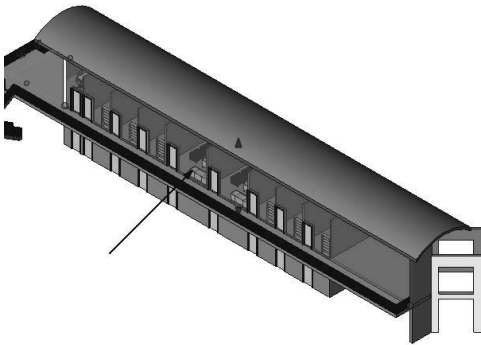
10.

Select the **Green Check** under the Mode panel to finish the roof.
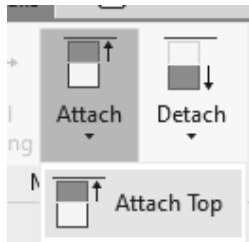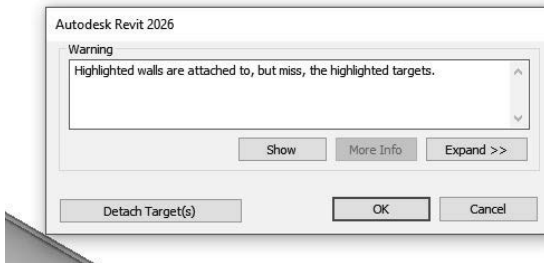
11.

Switch to an isometric 3D view.

12.

Hover over the wall below the roof.
Click TAB.
All connected walls will be selected.
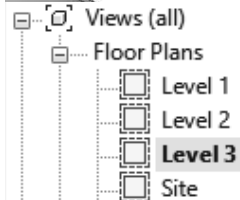Left click to select.

13.

Select **Attach Top** from the Modify Wall panel.
Then select the roof.
The walls will adjust to meet the roof.
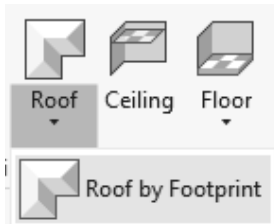
14.   If this dialog appears, click **OK**.

Orbit the model to inspect the walls.

15.   Activate the **Level 3** floor plan.

16.   Activate the Architecture ribbon.
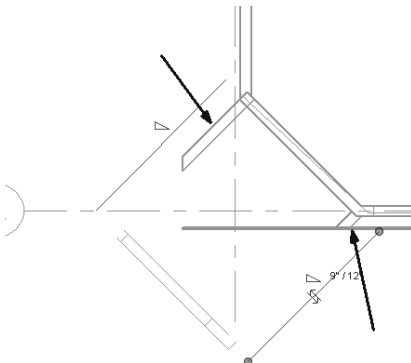Select the **Roof By Footprint** tool from the Build panel.

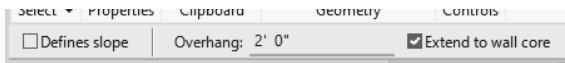17.   Select the **Pick Walls** tool from the Draw panel.

18.   On the Options bar: Enable **Defines slope**.
Set the Overhang to **2′ 0″**.
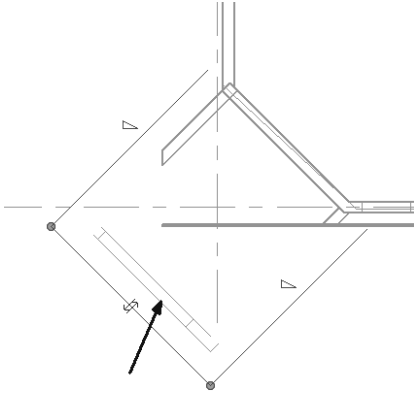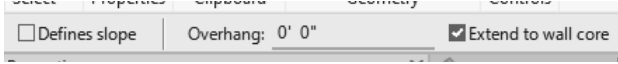Enable **Extend to wall core**.

19.   Select the outside edge of the two walls indicated.

20.   Disable **Defines slope**.

21.

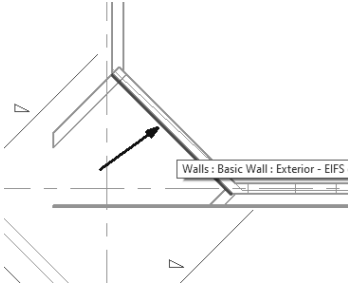Select the outside edge of the wall indicated.

22.

☐ Defines slope   Overhang: 0' 0"   ☑ Extend to wall core
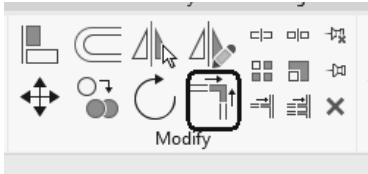
Disable **Defines slope**.
Set the Overhang to **0′ 0″**.

23.

Select the **Pick Line** tool from the Draw panel.

Draw

24.

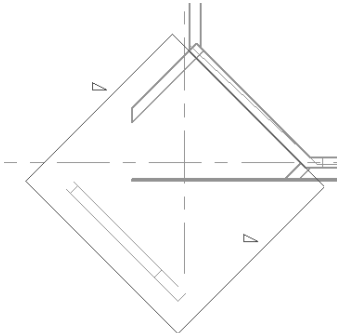Pick the exterior side of the wall indicated.
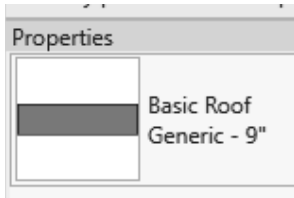
Walls : Basic Wall : Exterior - EIFS

25.

Modify

Select the **Trim** tool from the Modify panel.

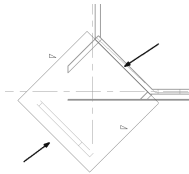26.

Trim the roof boundaries so they form a closed polygon.
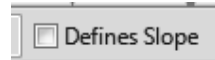
1-49

27. Set the Type to **Generic- 9″**.

Basic Roof
Generic - 9"

28. Set the Slope to **6″/12″.**
Dimensions
Slope   6" / 12"

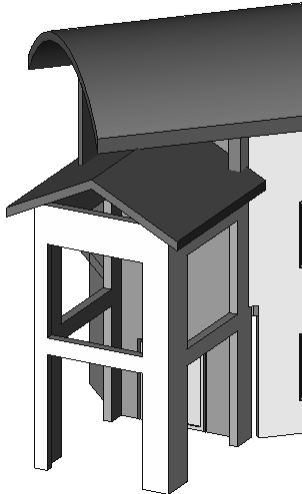29. Verify that both the back and front boundary lines have no slope assigned.

If they have a slope symbol, select the back and front boundary and lines and uncheck **Defines Slope** on the Options bar.
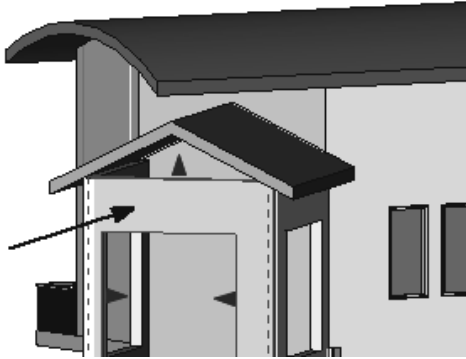
☐ Defines Slope

30. Once the sketch is closed and trimmed properly, select the **Green Check** on the ribbon.
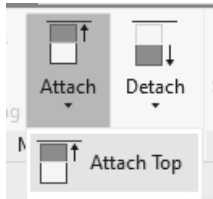
31. Return to a 3D view.

32.

Hover over the front wall.
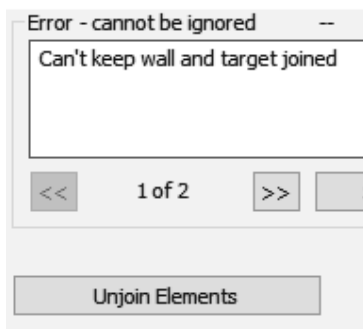Click TAB to select all connected walls.
Left click to select the walls.

33.

Select **Attach Top** from the Modify Wall panel.

Attach Detach

Attach Top

34.

Select the roof to attach the wall.

Roofs : Basic Roof : Generic - 9"

35.

Error - cannot be ignored   --

Can't keep wall and target joined

<<   1 of 2   >>

Unjoin Elements

Click **Unjoin Elements**.

Left click in the window to release the
selection.

Orbit around the model to inspect the
roofs.

36. Close without saving.