

Practice Exercise 2

Place Isolated Foundations



Learning Objectives that are covered within this practice exercise are:

- 1.1a Work with foundations

Video resources that may help with this challenge exercise are:

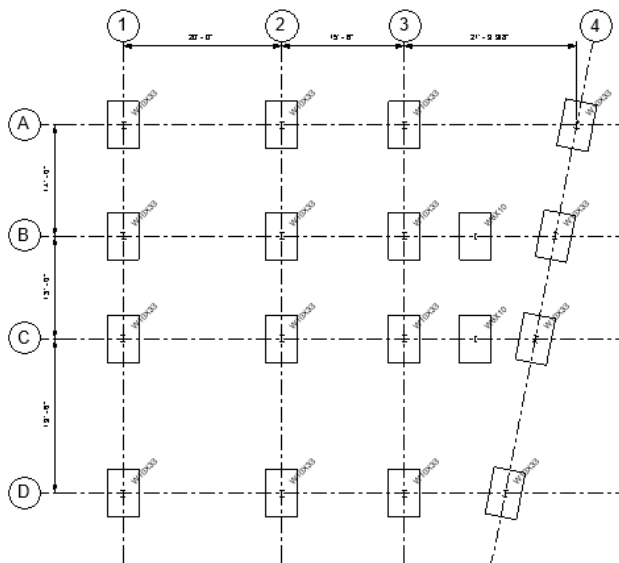
- 015 - Working with foundations Part 1.mp4

Criteria: Create isolated pad foundations (72" x 48" x 18") aligned to each of the structural columns.

The following steps need to be completed:

1. From the Practice Exercise folder in the Datasets, open the Revit model Practice Exercise 2.rvt.
2. Create the isolated foundations using the family type 72" x 48" x 18".
3. Ensure that each foundation matches the rotation of the structural columns.

The finished model should look like the image shown below.



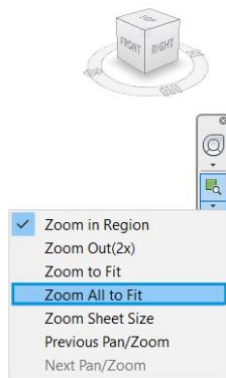
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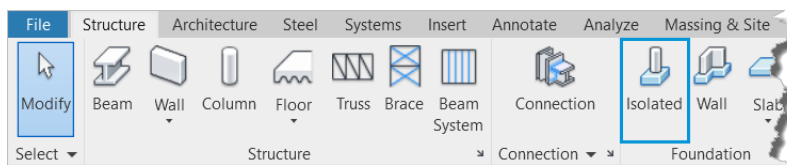


Solution:

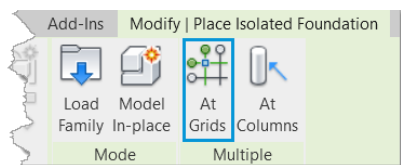
1. From the Practice Exercise folder in the Datasets, open the Revit model Practice Exercise 2.rvt.
2. In the Project Browser, open the 3D Working View.
3. Now, tile the plan and 3D view. On the View ribbon, in the Windows panel click the Tile Views command as shown below or use the shortcut key WT.
4. Next, zoom all views to fit. On the Navigation bar, click the button drop down list and then select Zoom All to Fit. Alternatively, you can use the short cut keys ZA.



5. You now place the pad foundations at grids. The isolated foundation will automatically be placed on the grid intersections and located at the column bases.
 - a. On the Structure ribbon in the Foundation panel, click the Isolated command as shown below.



- b. On the context ribbon, click the At Grids command. If the At Grids command is inactive, click into the Level 1 plan.

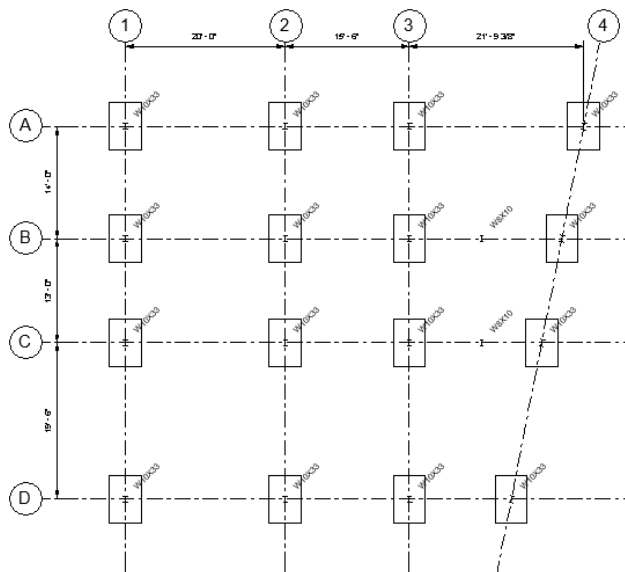


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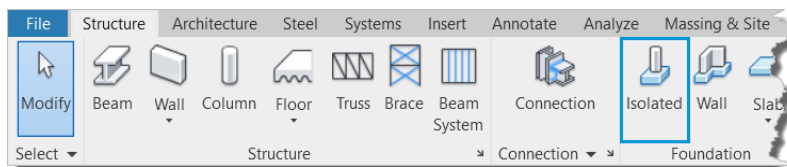
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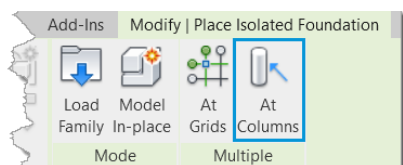
- c. Select all the grids using a window selection; a pad foundation should then be previewed on each grid intersection. Notice that the orientation of the foundations does not match the structural columns. (You may receive a warning message that “An attached Structural Foundation will be moved to the bottom of the Column.”)
6. Select Finish on the context ribbon.
The pad foundations are now placed. Your model will look like the image shown below. Note that the foundation pads are attached to the base of each column, but the rotation does **not** match the structural columns.



7. Next, delete the foundation pads that you have just placed and place new foundations using the “At Columns” method.
 - a. Right-click a foundation pad and choose Select All Instances, and then click Visible In View. Delete the foundations.
 - b. On the Structure ribbon in the Foundation panel, click the Isolated command as shown below.



- c. On the context ribbon click the At Columns command.



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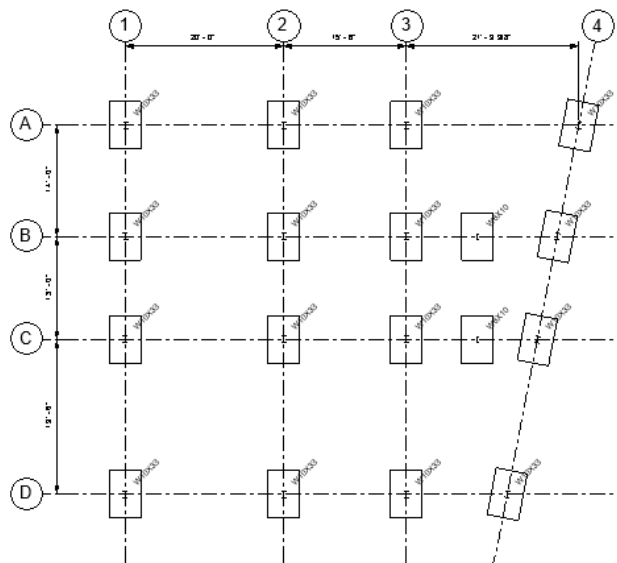
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- d. Select all the columns using a window selection. A pad foundation should then be previewed at each column. Notice that the orientation of the foundations matches the structural columns.

8. Select Finish on the context ribbon.

The pad foundations are now placed. Your model will look like the image shown below. Note that the foundation pads are attached to the base of each column and the rotation matches the structural columns.



END OF EXERCISE