

Revit Architecture 2014 – Displaced Views

Introduction

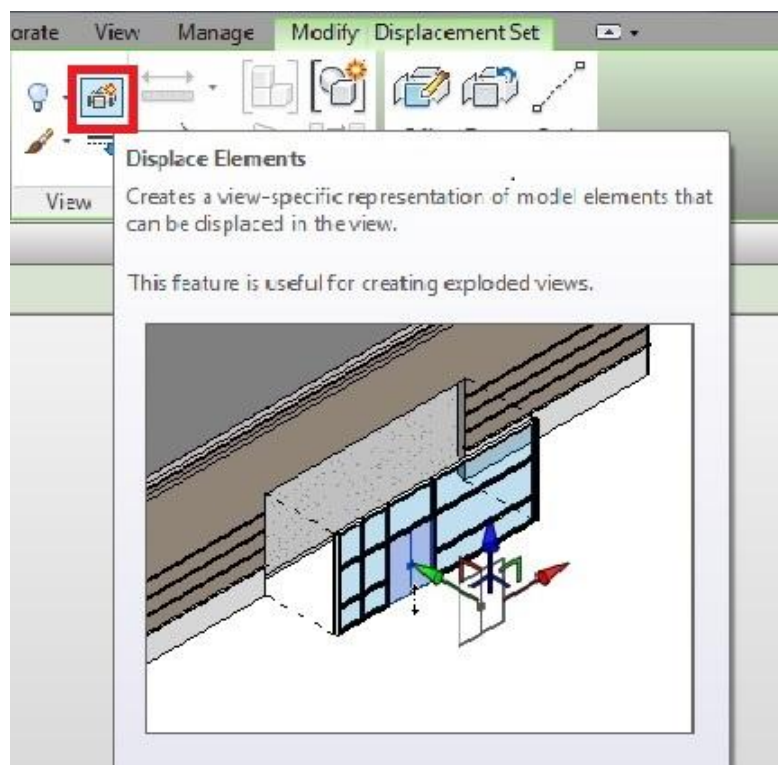
Working with displaced views can be a lot of fun.

Use displacement set tools in a Revit Project to indicate your design intent. Displaced views are used in 3D to illustrate elements in relation to the model, in order to better visualise the model.

Displaced Views

One of the great new features of Revit Architecture 2014 is the Displace Elements Tool (Fig 1). This feature is useful for creating exploded views.

Fig 1: Displace Elements Tool.

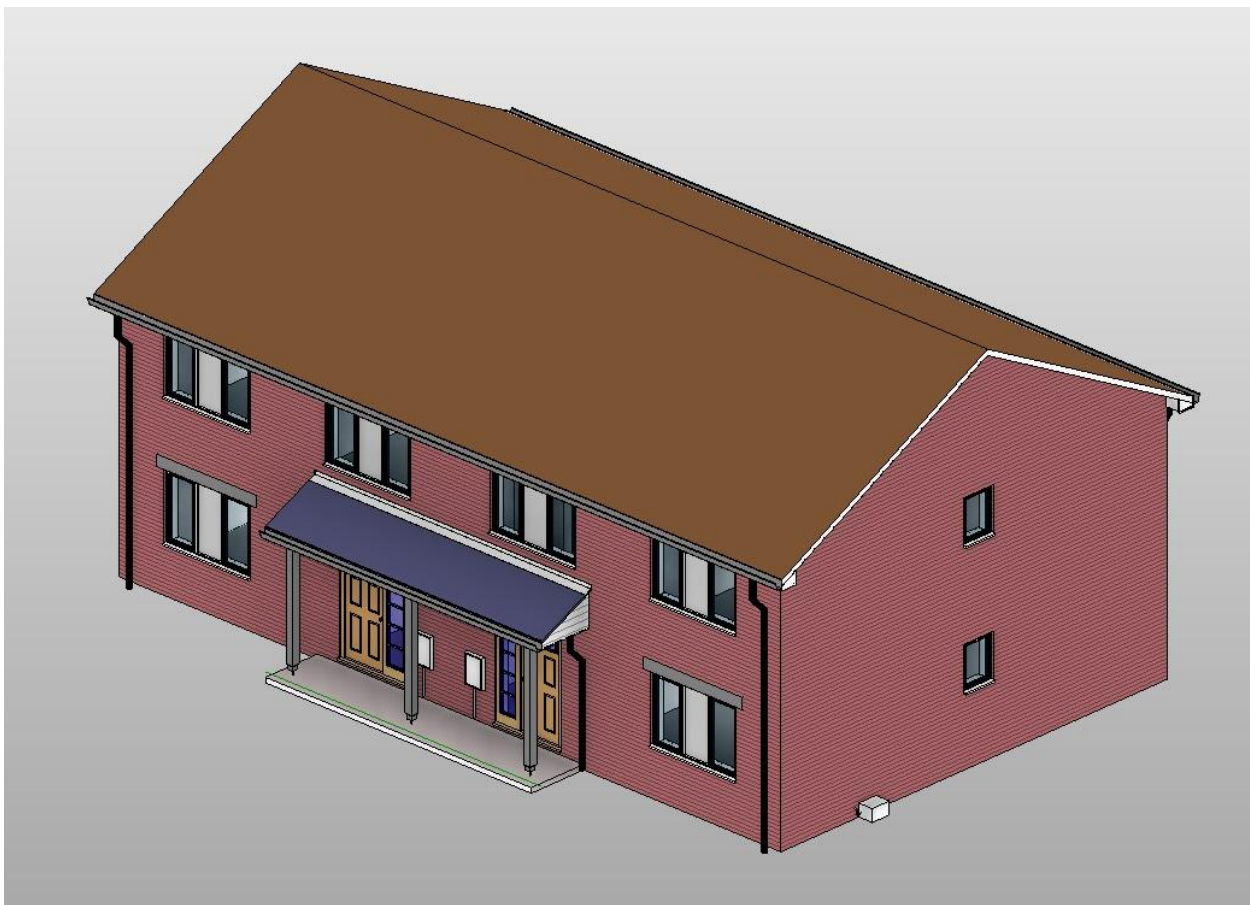


Select elements to create Displacement Sets and move them along their x,y and z axis away from the model. This view specific setting has no effect on the actual position of the elements. Displacement Sets consist of one or several elements that can be positioned in the view.

Create a Displacement Set

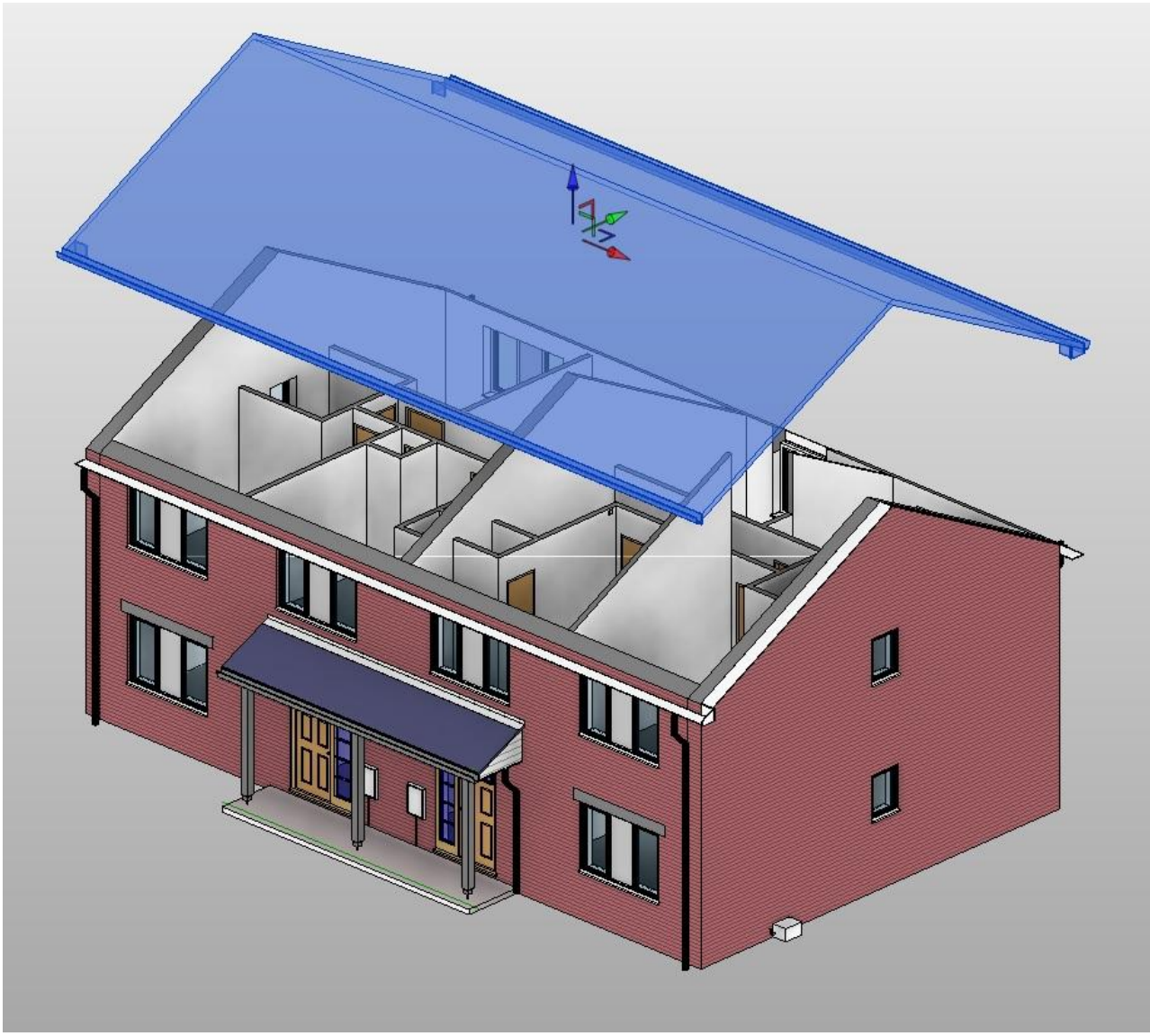
A simple house model (Fig 2) will suffice to demonstrate the key functions.

Fig 2: House Model Complete.



To create a Displacement Set select one or more elements in the model. Use the drag controls to move the displacement set in the x,y or z direction. In Fig 3 on the next page, the roof has been selected and it has been dragged in the z direction above the main building shell.

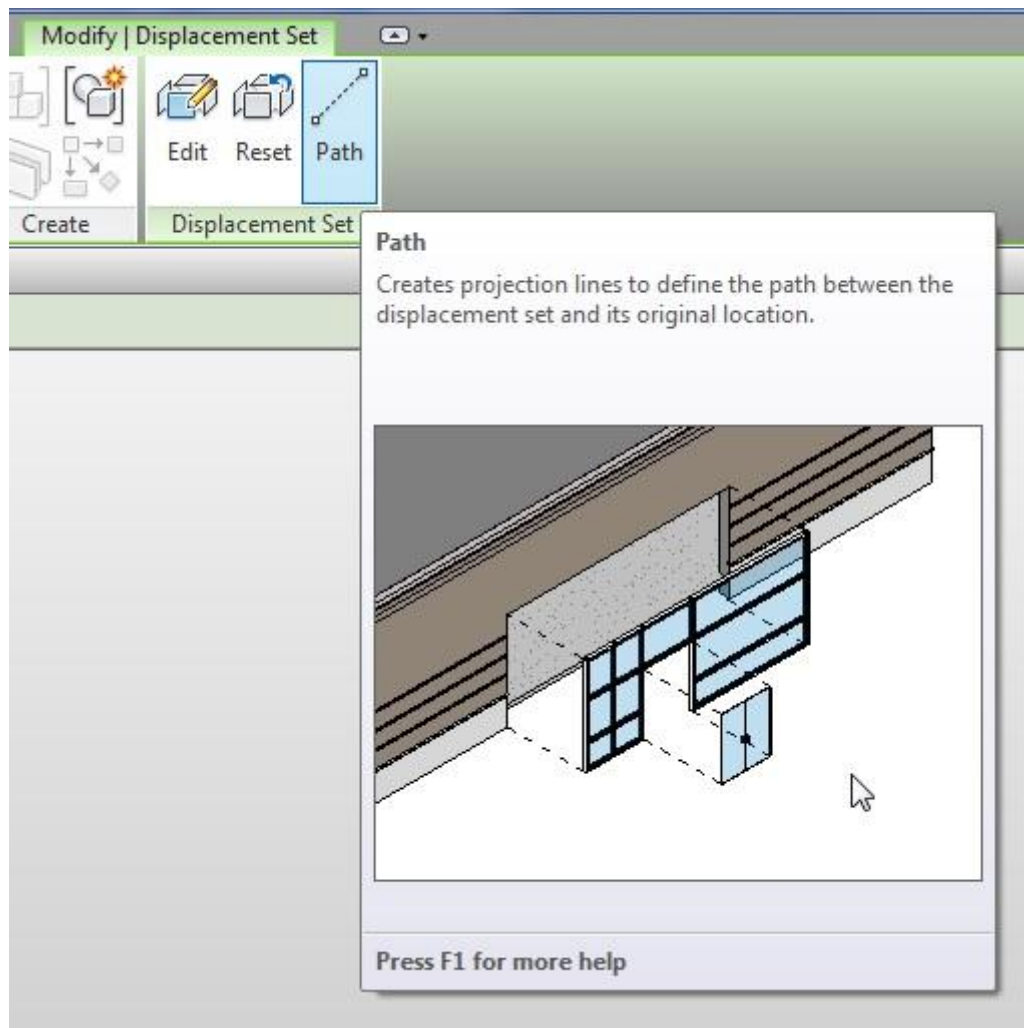
Fig 3: House Model – Displaced Roof Set (includes gutters).



This Selection Set includes two elements: The Gable Roof and the Gutters. The Gutter will be removed from the Selection Set later.

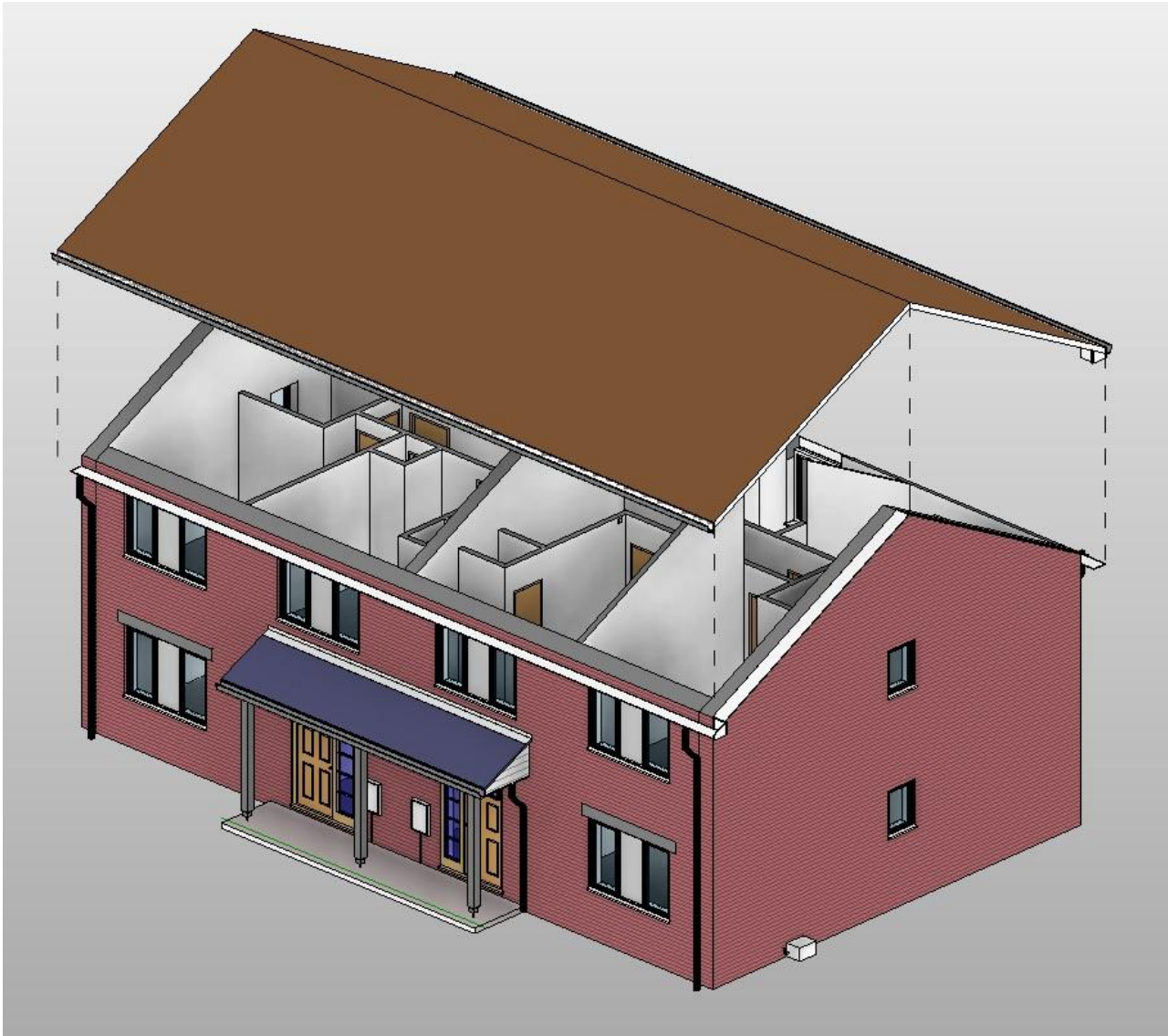
Use the Displacement Paths tool to show the source location of elements in the model (Fig 4 &5).

Fig 4: Displacement Path Tool Location.



Note: You can modify colour, lineweights and linestyles of paths by overriding graphics in the view. If required set the path style to straight or jogged in the properties palette.

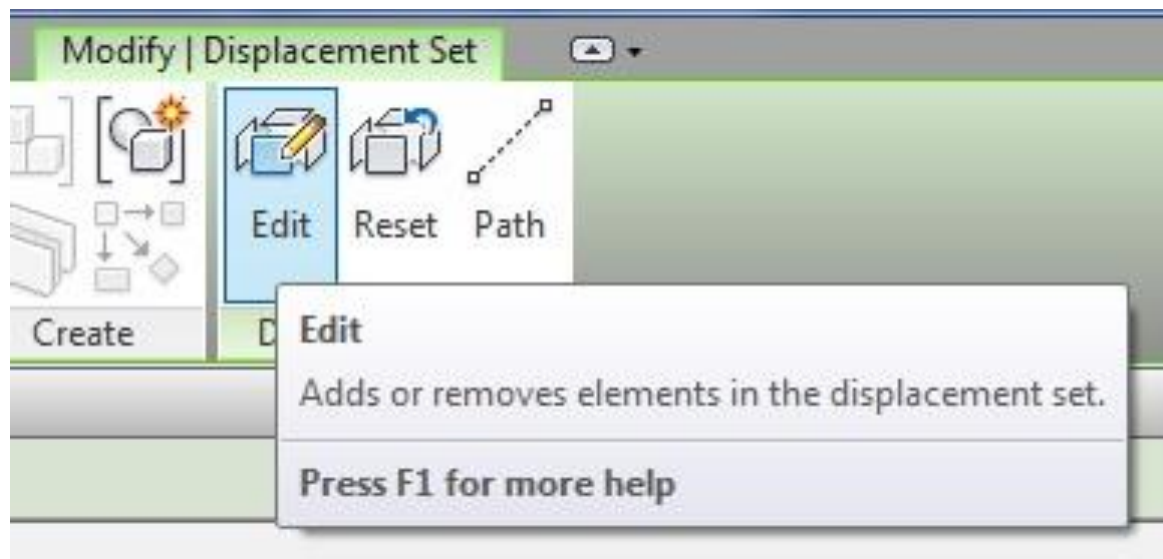
Fig 5: Displacement Path Tool applied to Roof Displacement Set.



Note: To specify precise displacement select a Displacement Set (e.g. the roof) and enter an offset distance with x,y and z coordinate dimensions in the properties palette.

Sometimes you will need to modify a displacement set by adding or removing elements. Click edit to use the add and remove tool, click finish when complete. See below (Fig 6).

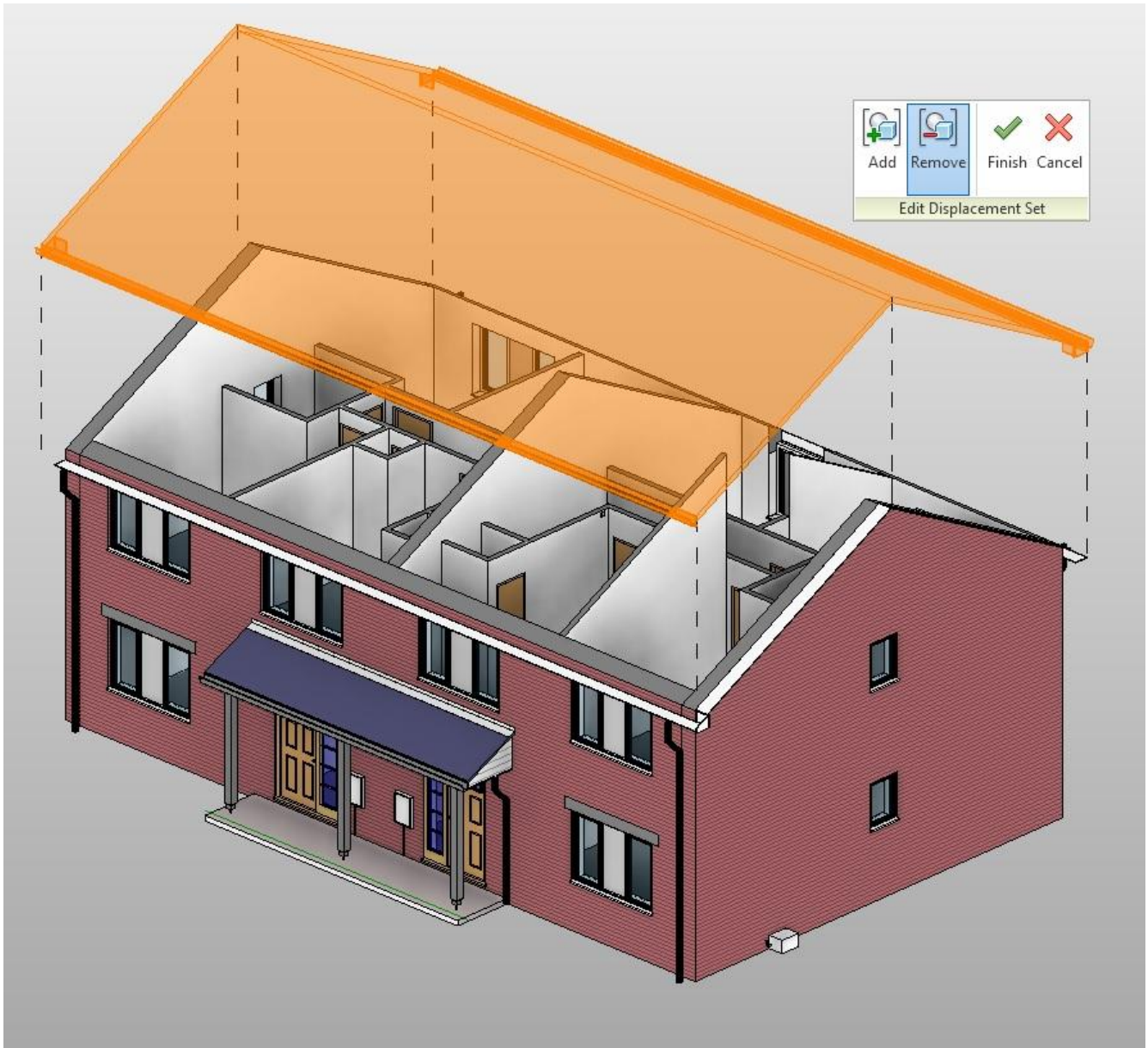
Fig 6: Modify Displacement Set (Edit button location).



In our example the gutters are part of the Roof Displacement Set. Using the remove function on the Edit Displacement Set panel we can quickly return the gutters to their original location and leave the roof isolated as a single element Displacement Set. This is very similar to editing groups in Revit Architecture.

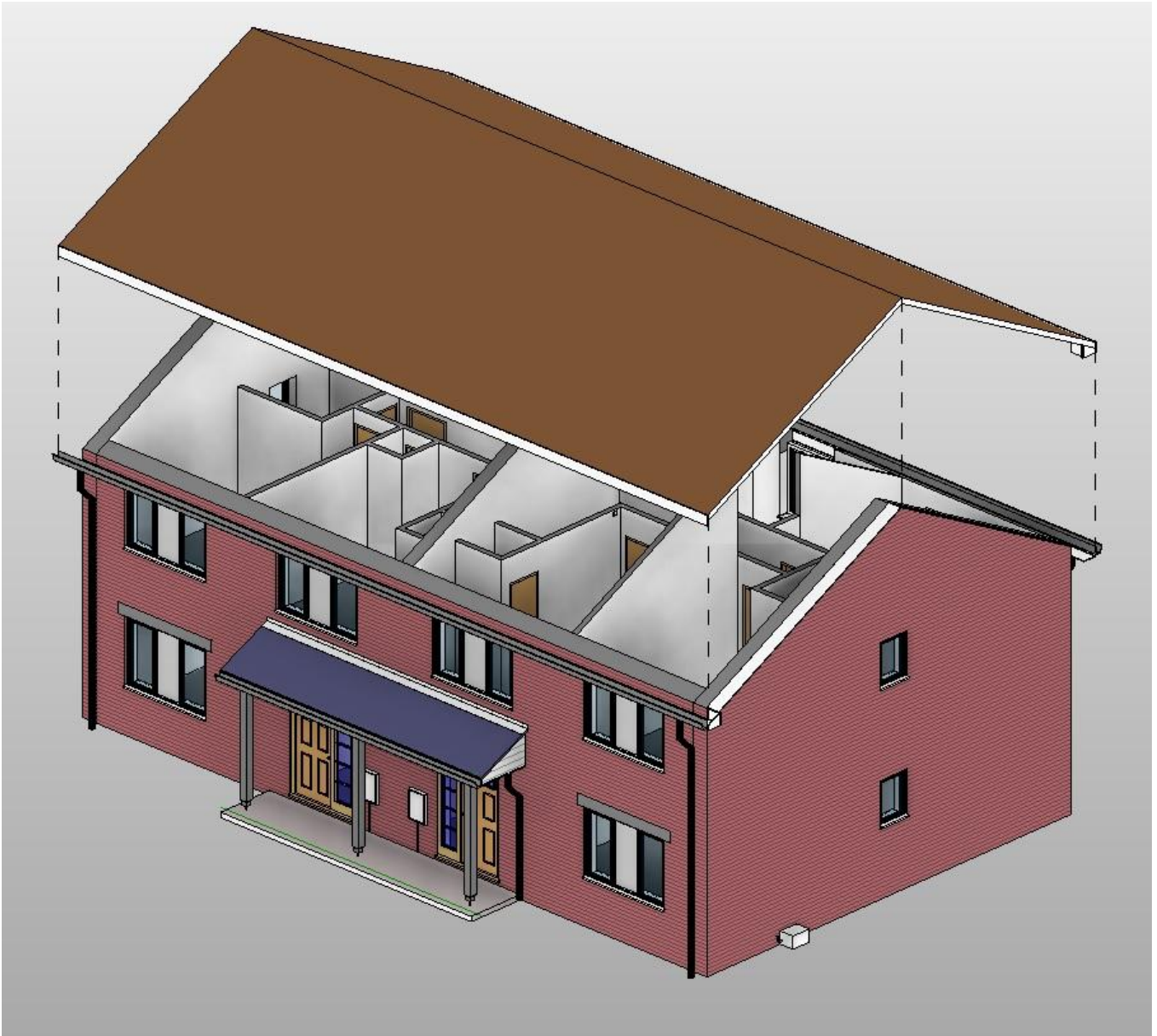
To return the gutters to the eaves location click the remove button on the Edit Displacement Set panel, click on the two gutters (remember to press control) and then click finish (see Fig 7 on the next page).

Fig 7: Remove gutters from Displacement Set.



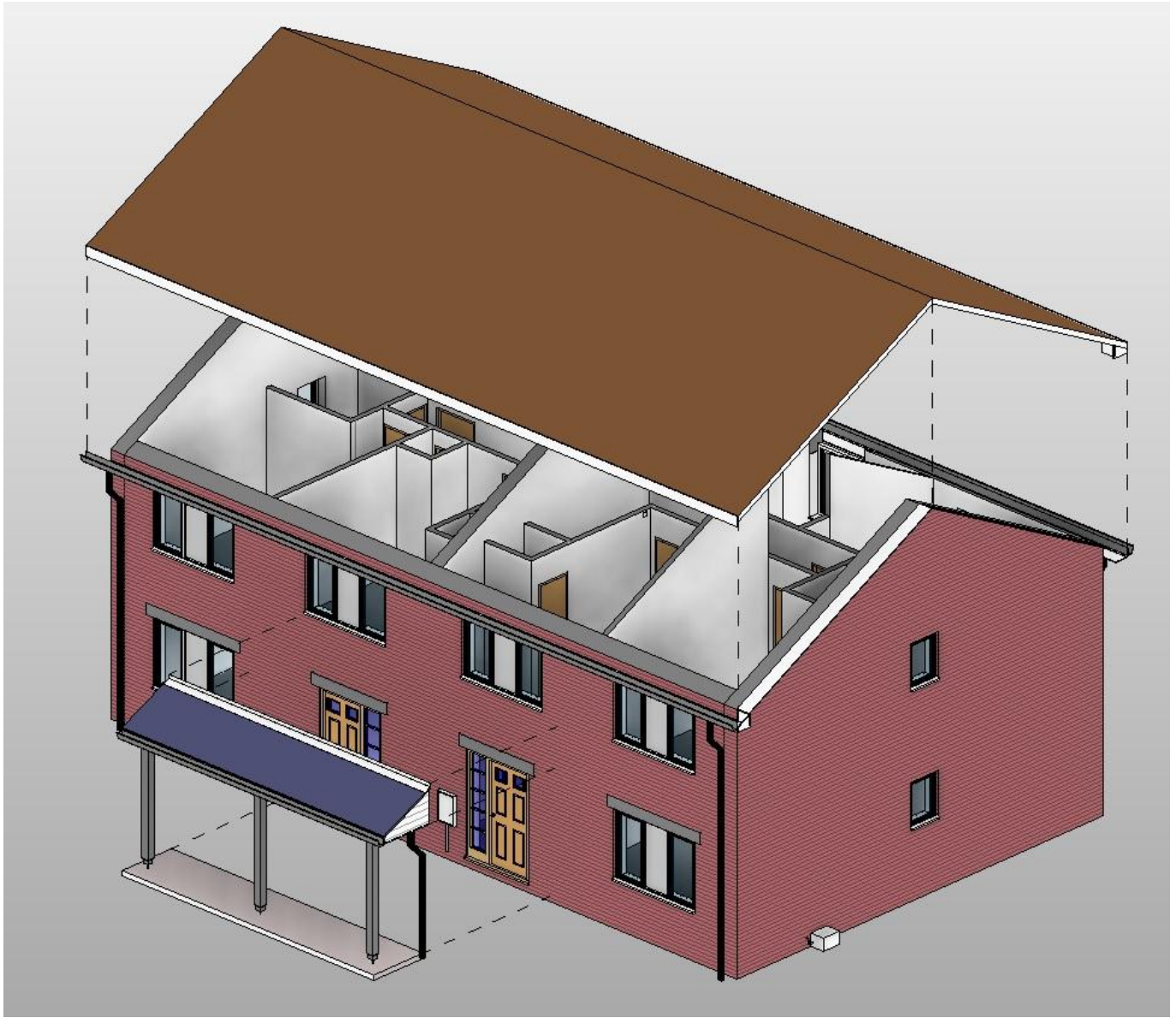
Note: The Displacement Set selected for editing will highlight as illustrated above.

Fig 8: Gutters relocated to their original position.



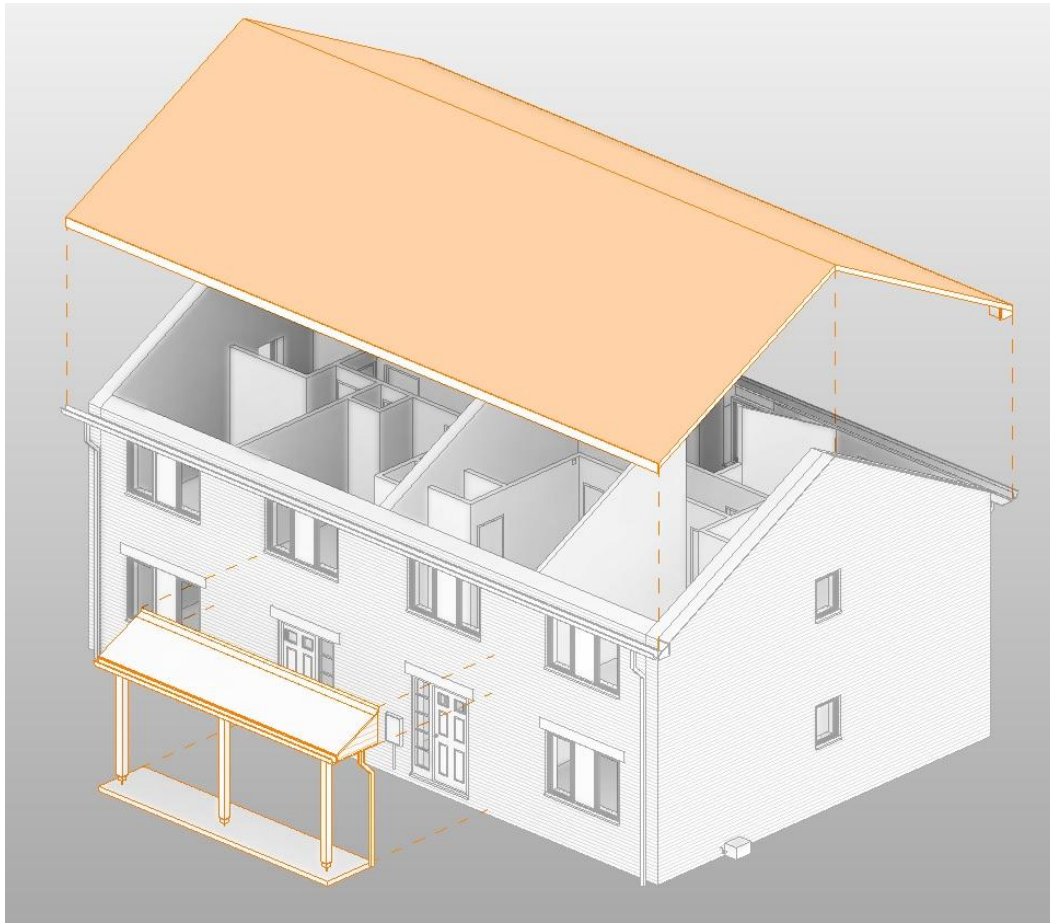
By repeating the same steps as outlined we can create as many displacement sets as we like. In the following illustration the front canopy has been converted into a displacement set and dragged in the y direction (Fig 9 – next page).

Fig 9: Canopy Displacement Set.



Use the highlight displacement set tool to easily isolate and identify all displacement sets in the view (Fig 10). The icon for this tool is located on the View Control Bar at the bottom of the view window (left hand side).

Fig 10: Highlighted Displacement Sets.



Note: Within a Displacement Set you can displace single elements. Tab select the element and click the displace elements tool.

To remove the Displacement Set and return elements to their original position in the view, select a set and click reset.

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