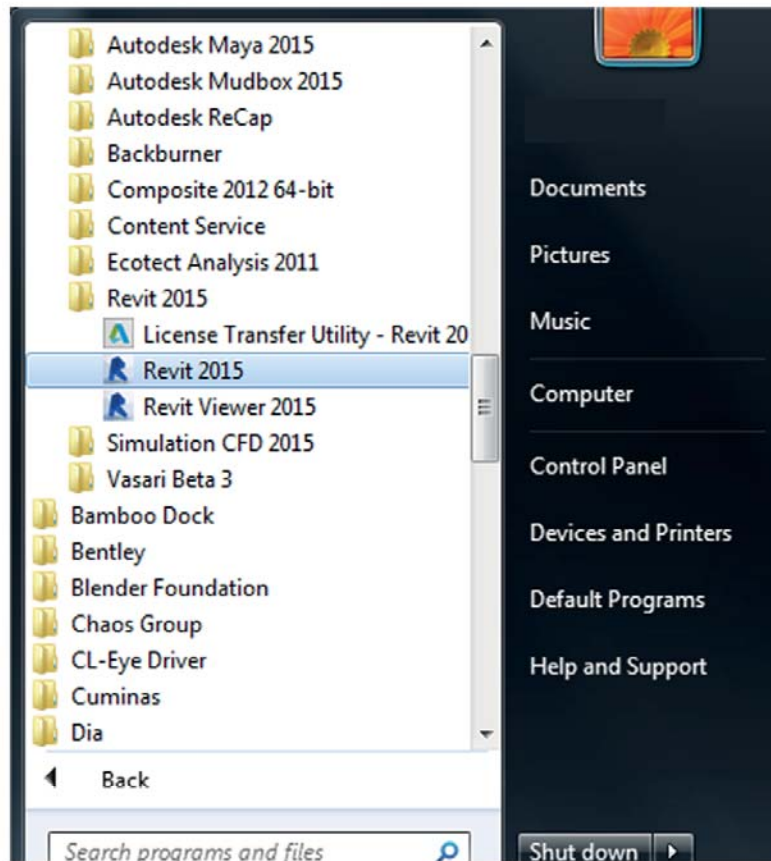


Tutorial Prerequisite

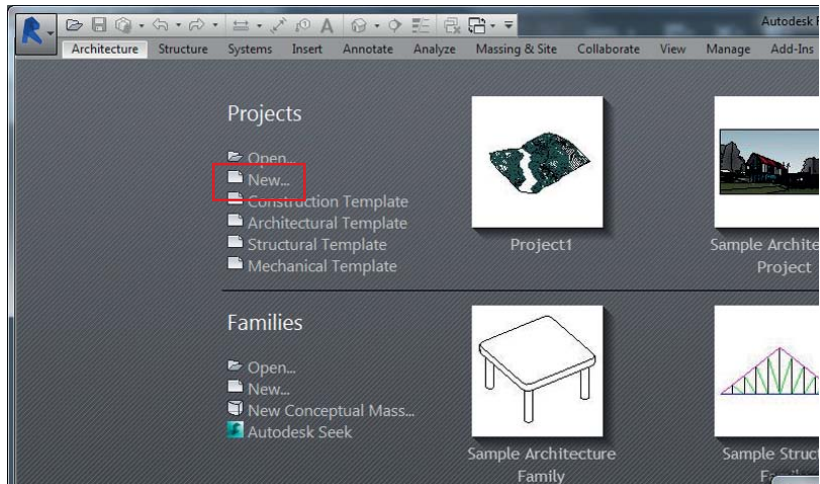
Contour lines from a GIS database in a drawing format such as .DWG or .DXF

1. Open Revit	Pg 3
2. Choose Template	Pg 4
3. Import data	Pg 5
4. 3D View	Pg 6
5. Create Toposurface	Pg 7
6. Create Toposurface	Pg 8
7. Toposurface	Pg 9
8. Finished Surface	Pg 10
Finished Surface	Pg 11
9. Exporting	Pg 12



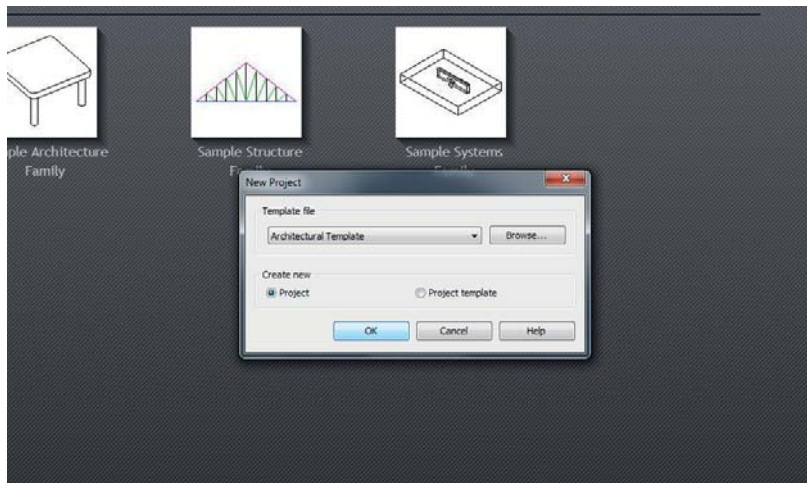
1. OPEN REVIT

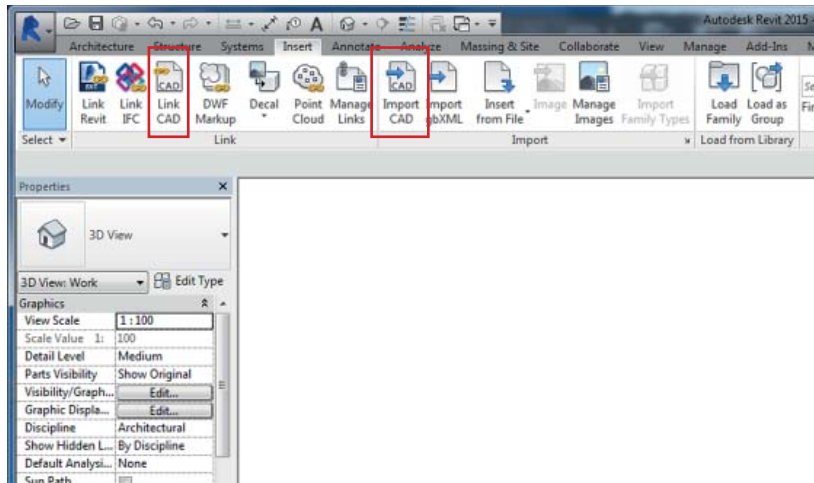
Open Revit, under Start> All Programs> Autodesk> Revit> Revit 2015



2. CHOOSE TEMPLATE

Under "[New]" dialog box, select "Architectural Template" and click OK.





3. IMPORT DATA

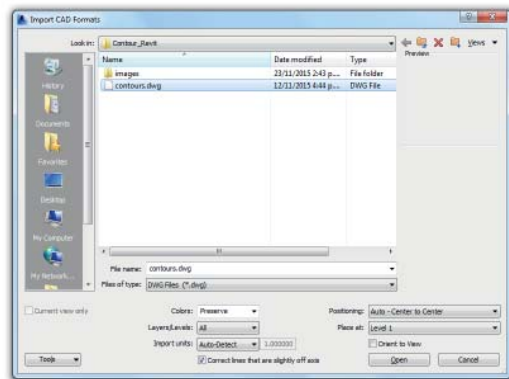
“Linking” allows any changes to the DWG to be updated in Revit and is useful if there are multiple people working in different programs on the same project. Because a reference is made to the DWG, files need to be organized so that Revit know where to find the links.

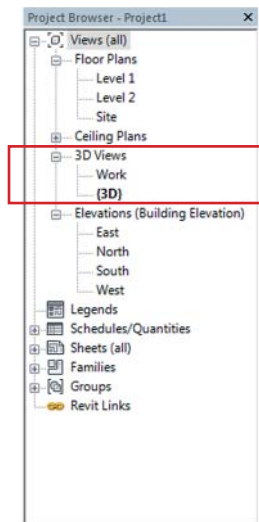
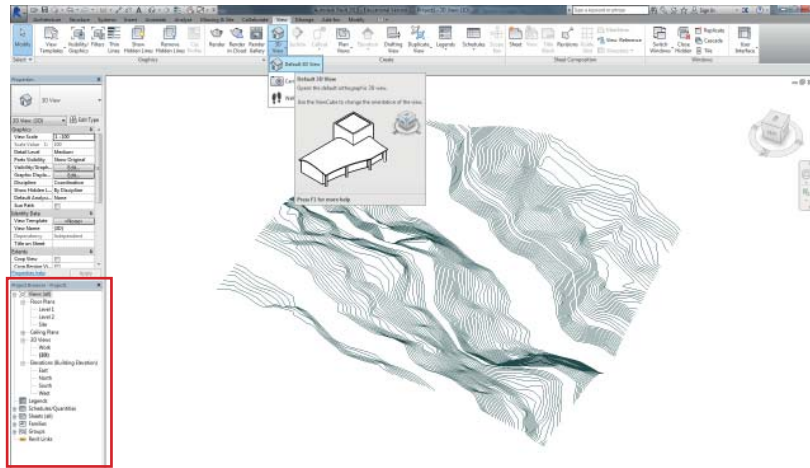
“Importing” creates a copy of the data inside Revit so any changes to the original DWG will not affect the Revit data.

‘[Link CAD]’ and ‘[Import CAD]’ are in the “[Insert]” tab of the main ribbon. The same dialogue box appears for both Link and Import.

Make sure ‘current view only’ is un-ticked.

Adjust ‘units’ when needed.





4. 3D VIEW

A 3D view is needed in order to make a toposurface. To make a 3D view go into the “[View]” tab and under the ‘[3D view]’ flyout there is ‘[default 3d view]’.

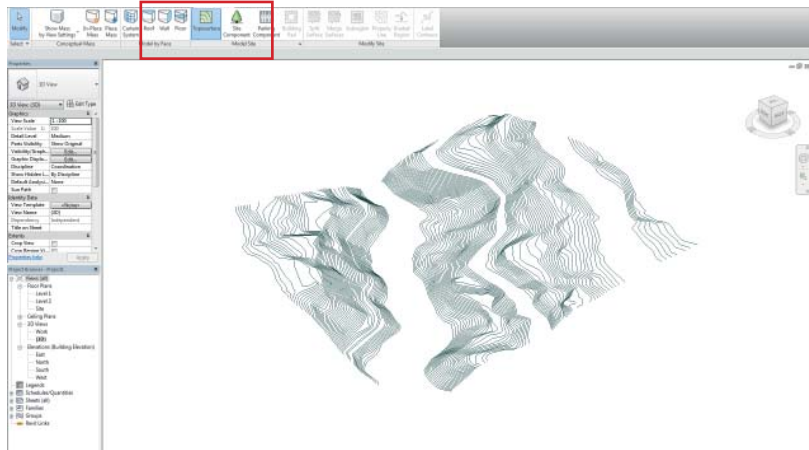
Navigation:

To PAN – hold down scroll button

To ORBIT – hold down scroll button and shift at the same time

This can also be done with the viewcube on the top right corner of the workspace.

You will notice there is a new ‘group’ in the **Project Browser** called ‘3D views’, different views can be saved

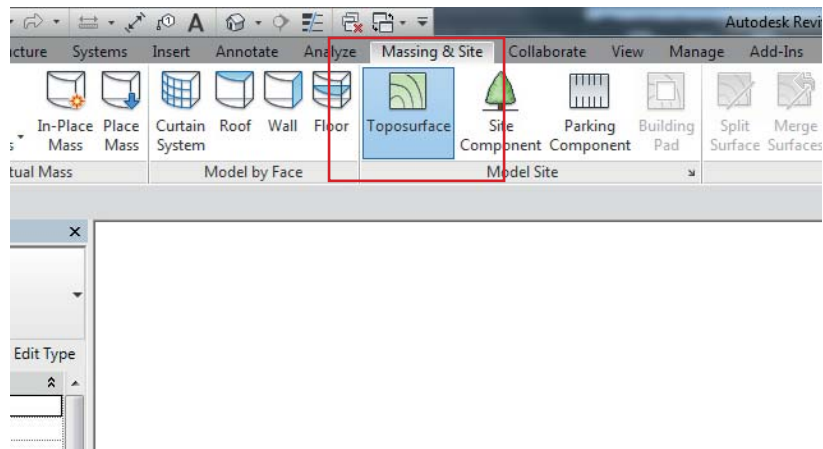


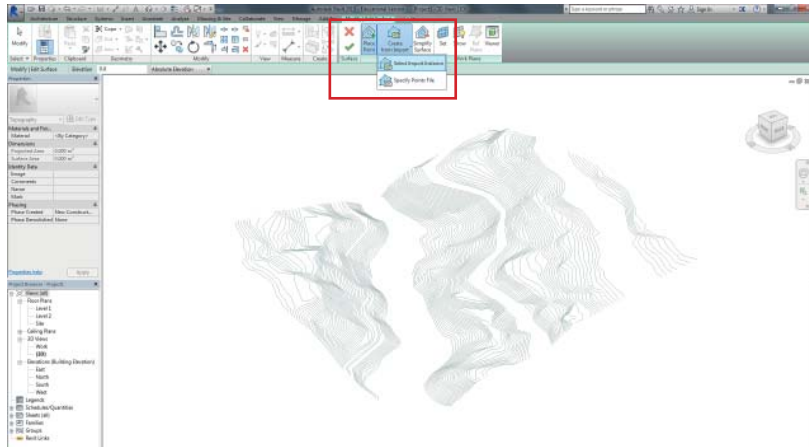
5. CREATE TOPOSURFACE

Toposurface is what Revit uses to represent site conditions. Toposurfaces have different material definitions, heights and show contour lines. They can be modified to show an existing site or proposed site grading.

Create a Toposurface by placing points individually or by using points from an imported object or file.

Toposurface tools are found in the '[Massing and Site]' tab of the Revit ribbon within the model site group.





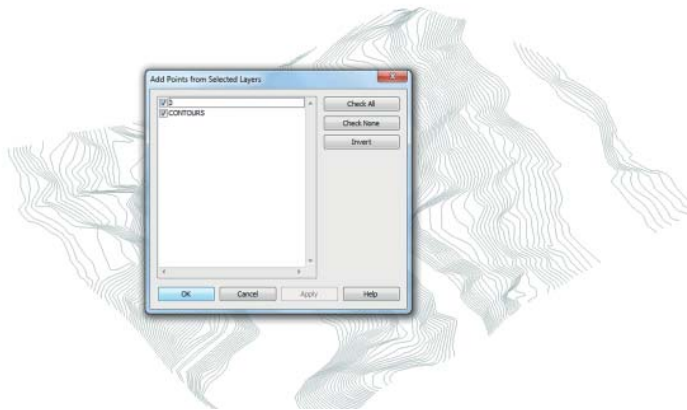
6. CREATE TOPOSURFACE

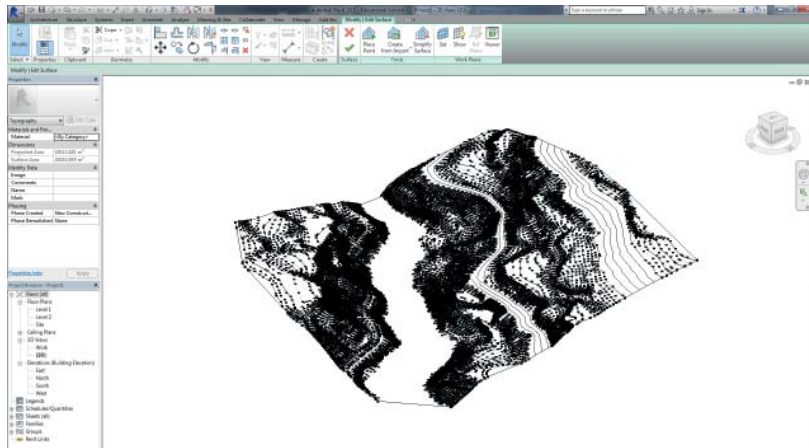
Normally Toposurfaces are created from points that you plot or provided from CSV files. In this case we already have 3D contour data so points can be extracted directly from this.

To create a Toposurface:

Select "[Create from Import]" > "[Select Import Instance]"

A new dialogue box will appear asking for which layers to add points > select which layers you need, and click **OK**.





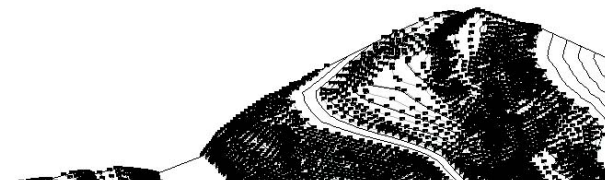
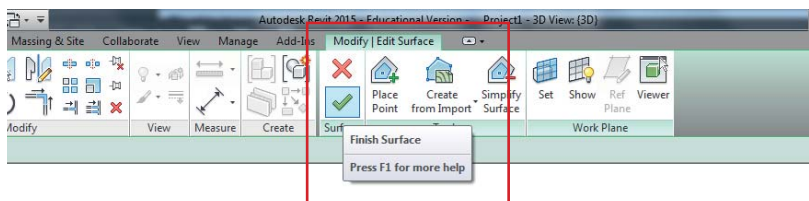
7. TOPOSURFACE

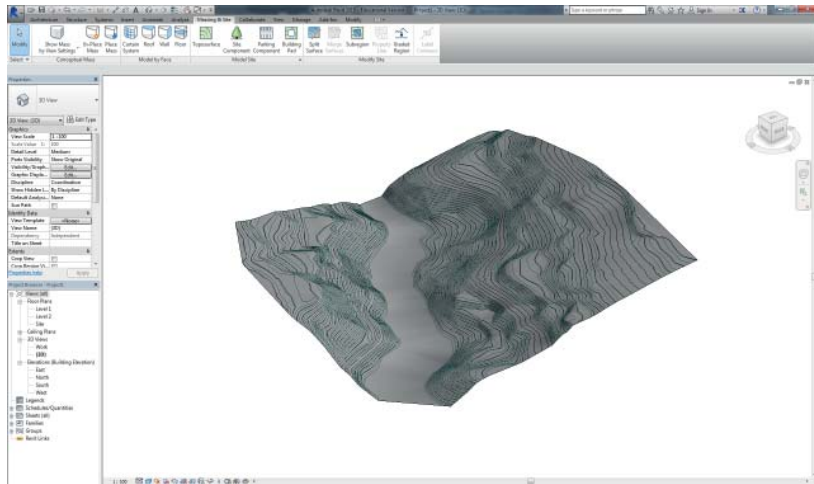
Topography points will be added to all the contour lines.

Complex terrain can be simplified with simplify surface.

Individual points can be edited if excavation is planned.

Click "[finish surface]"





8. FINISHED SURFACE

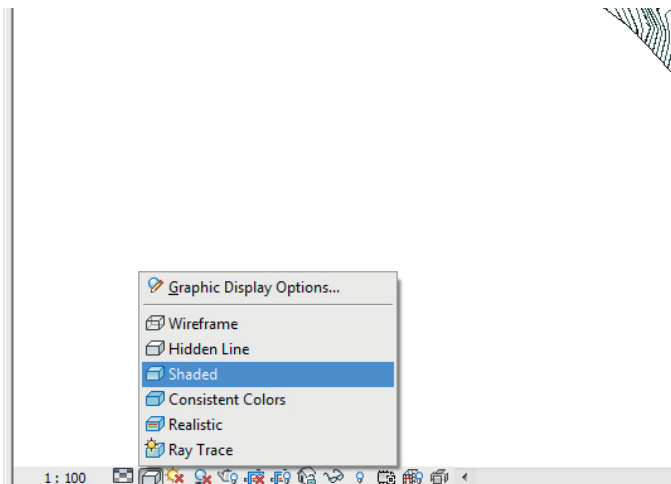
Finished contour model:

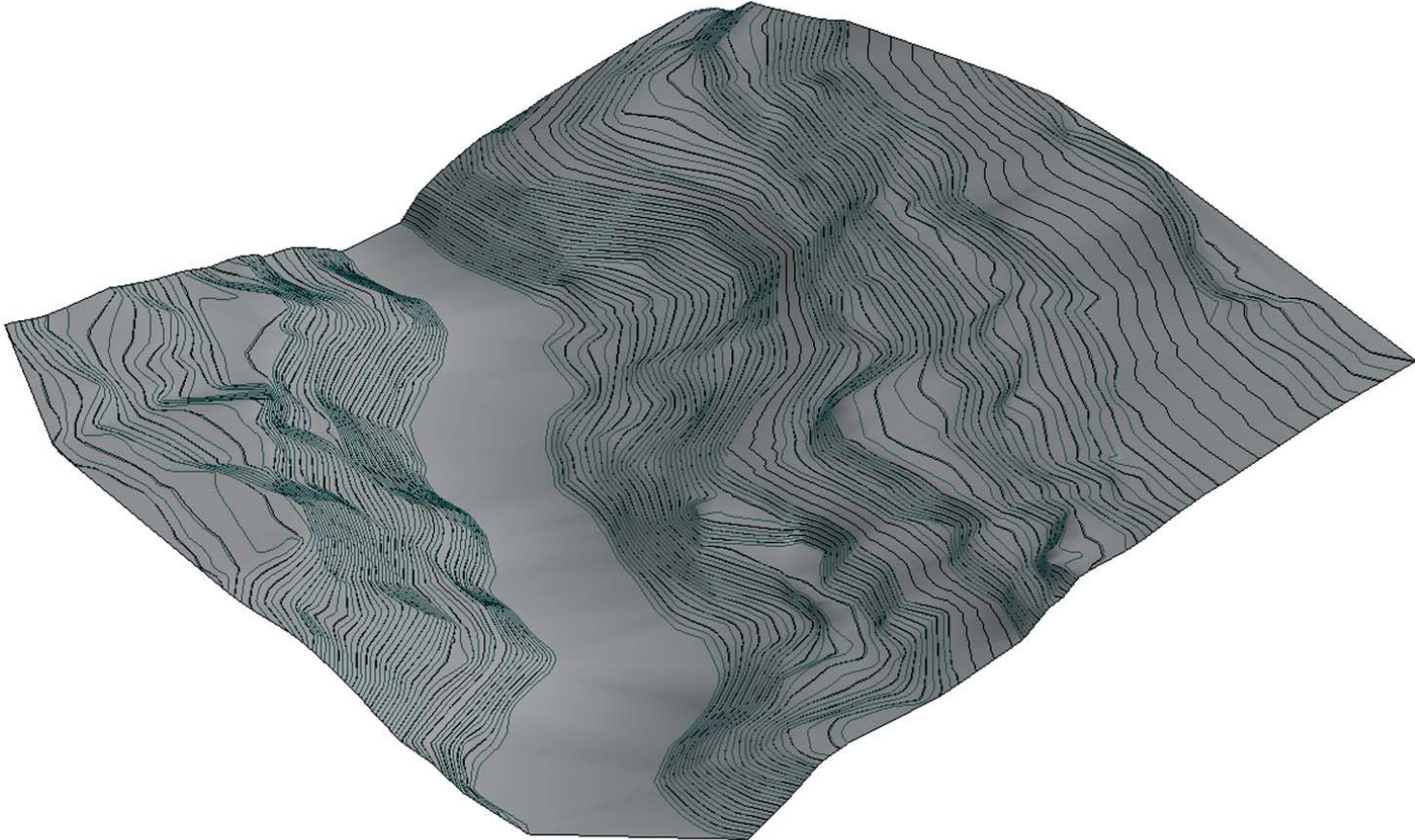
Visual style can be adjusted at the bottom under “visual style.”

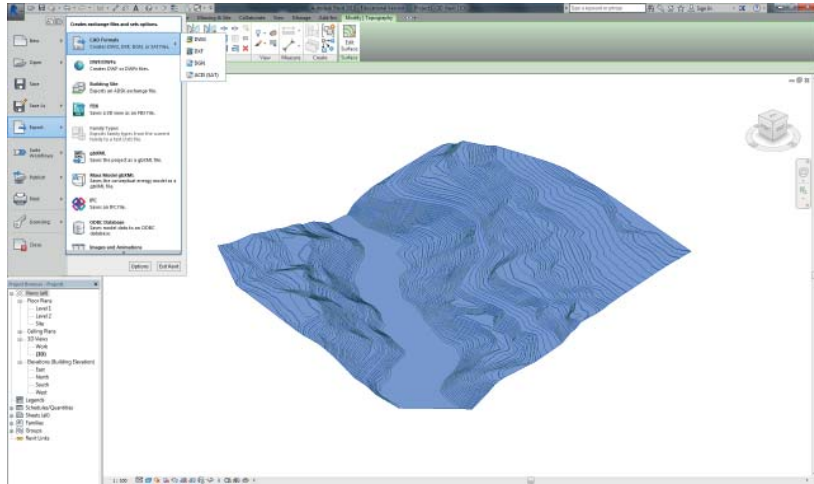
15

Building Elevation)

Quantities







9. EXPORTING

If you are working from another program, you can export the completed contour model as the required format in:

[Revit]> [Export]> (select required format)

