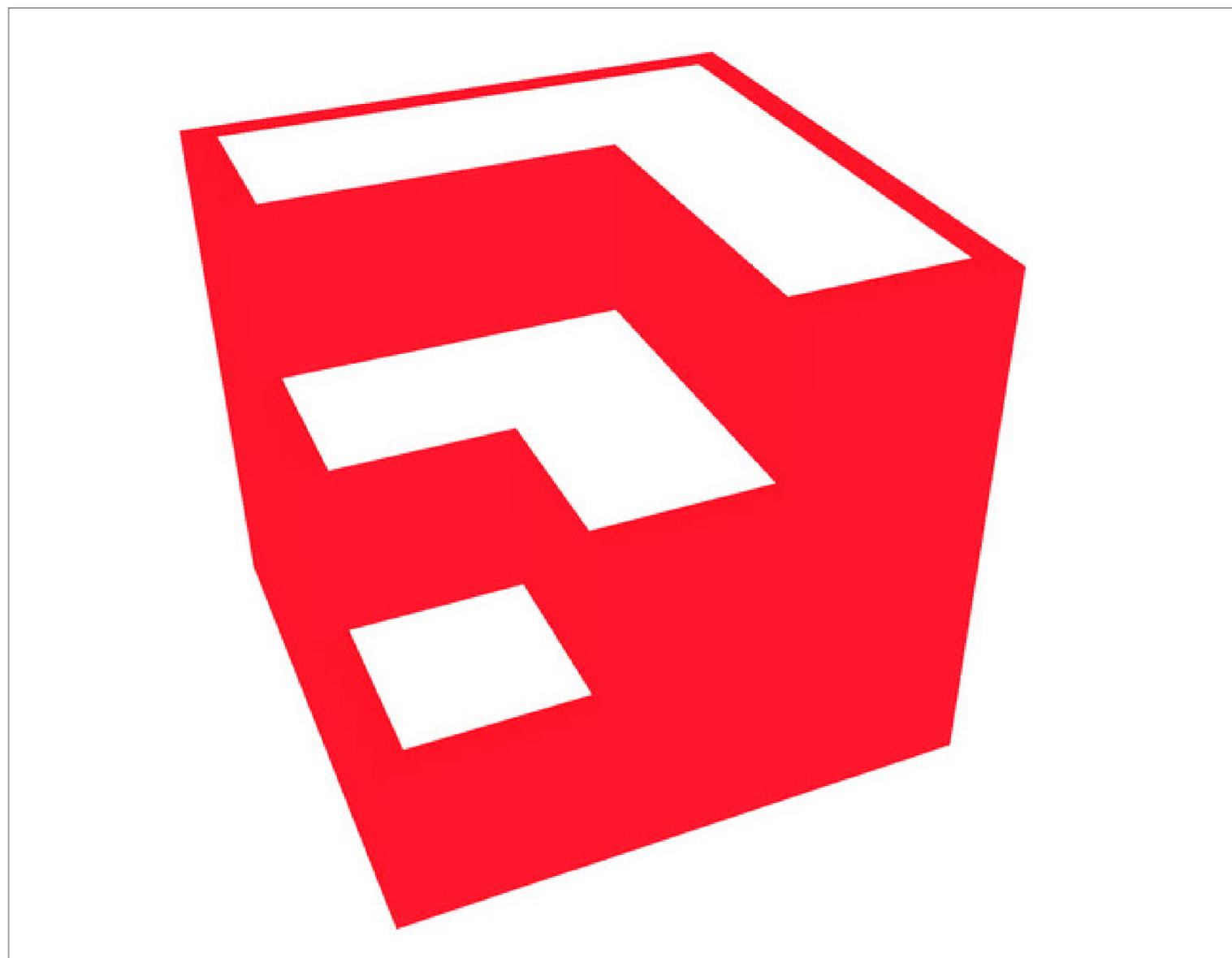


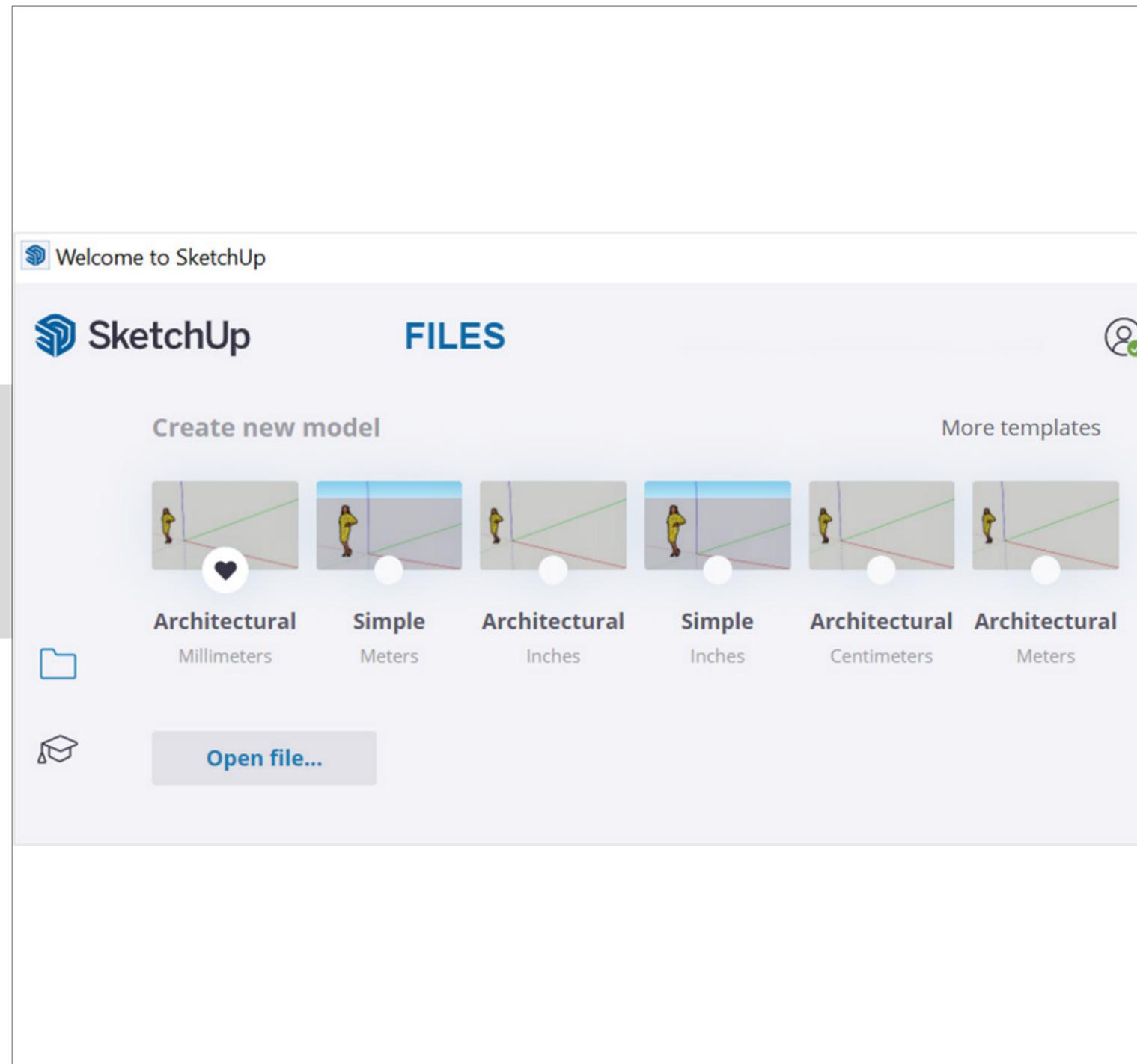
# SketchUp Tutorial

SketchUp Basics + Importing and Exporting from GIS



# Opening SketchUp

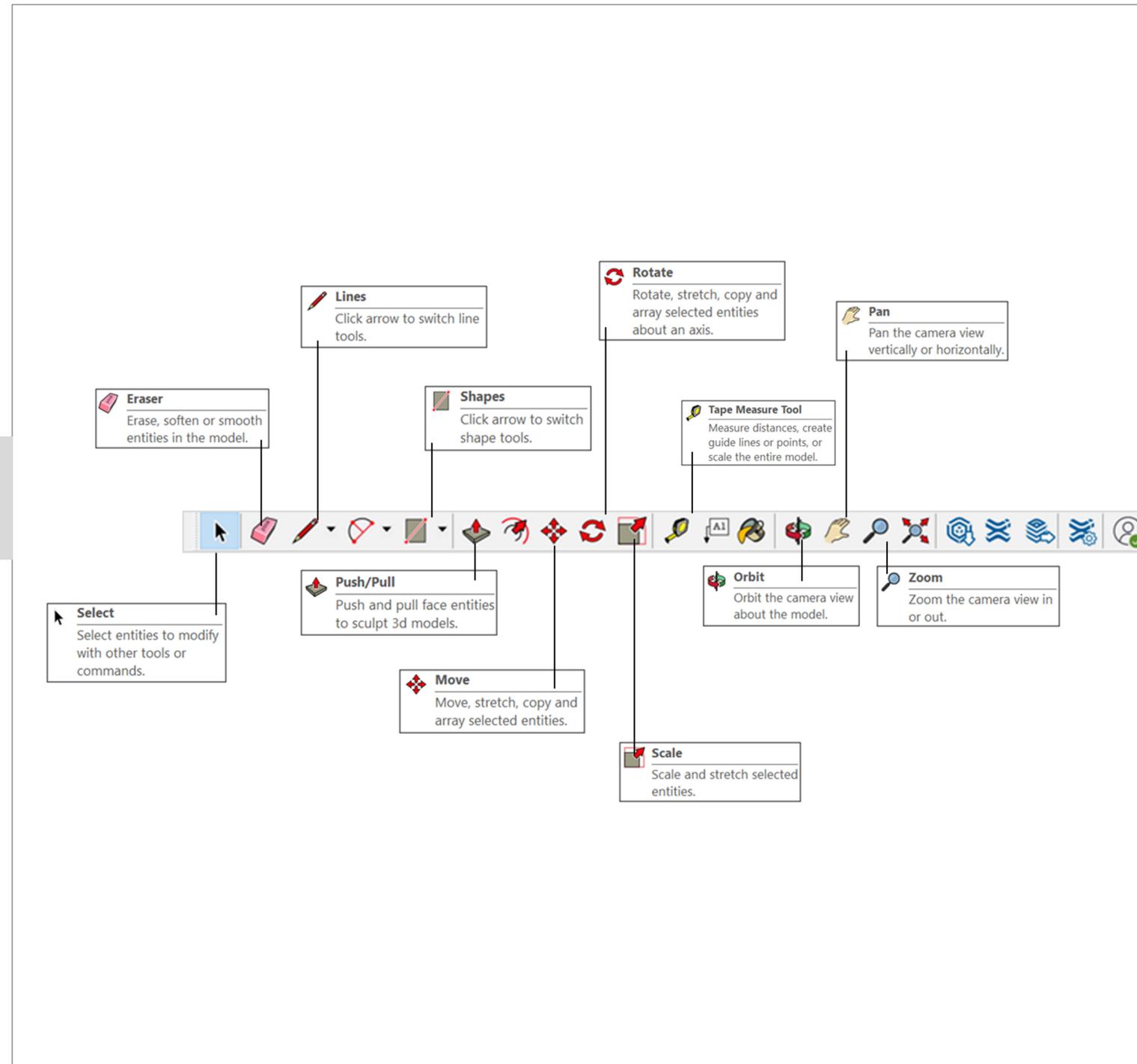
Start with opening SketchUp 1). After opening SketchUp - you can choose a template. There's a lot to choose from.



Always remember what template you choose from. This may affect the scale of your model and it's measurements!

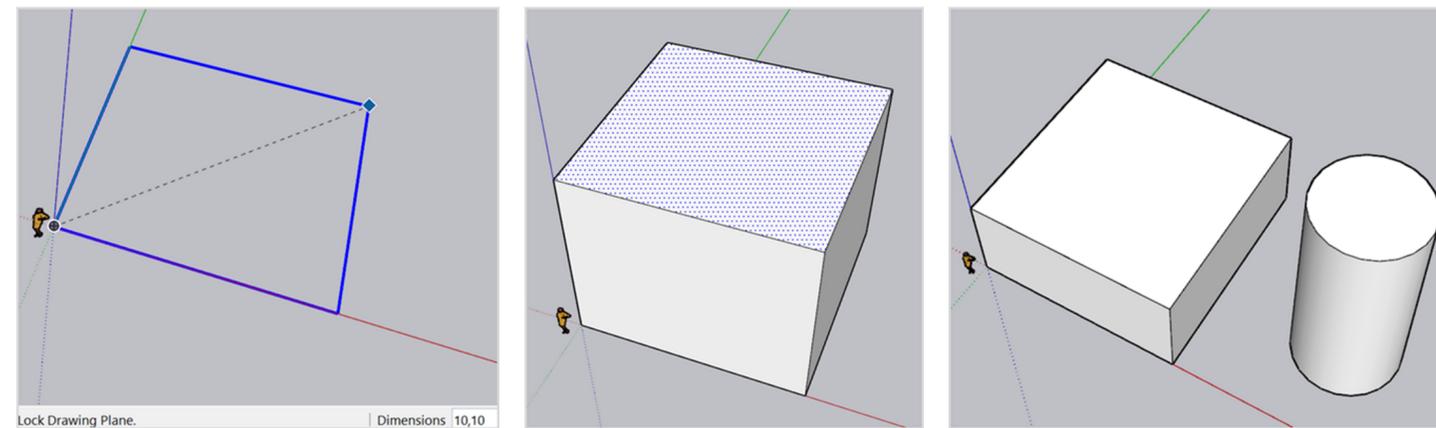
# Basic Tools

Here are the basic tools that are in SketchUp.



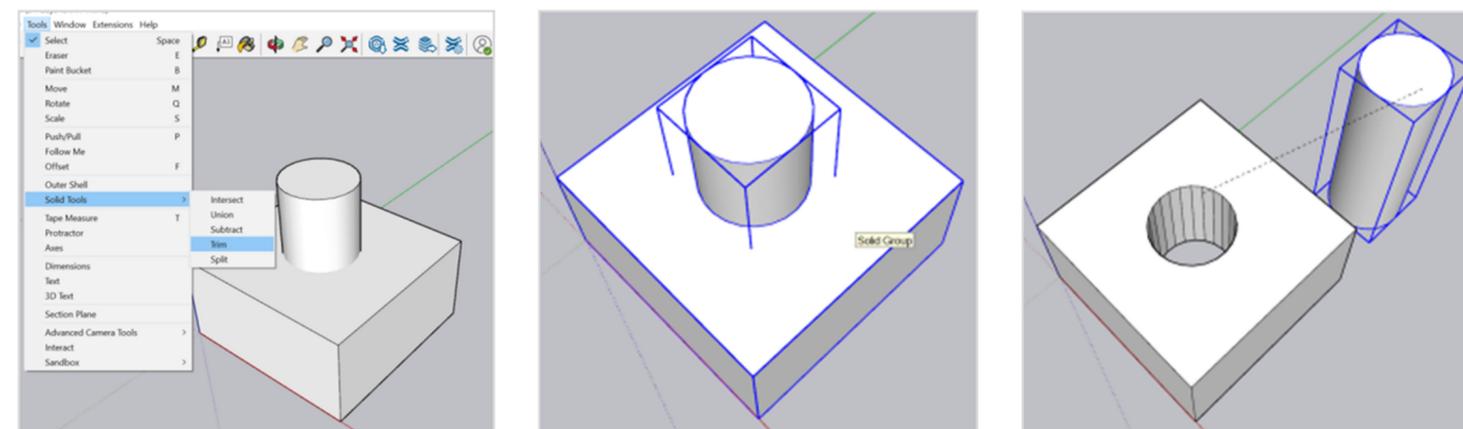
# Solid Tools: Trim Tool

- 1). Click onto the shape tool > Type in the measurements of the shape
- 2). Click onto the push/pull tool > Type in the measurement of the height
- 3). 3. Select all components of the shape > Right click > Select make group
- 4). 4. Create two shapes ( e.g square and cylinder)



# Solid Tools: Trim Tool

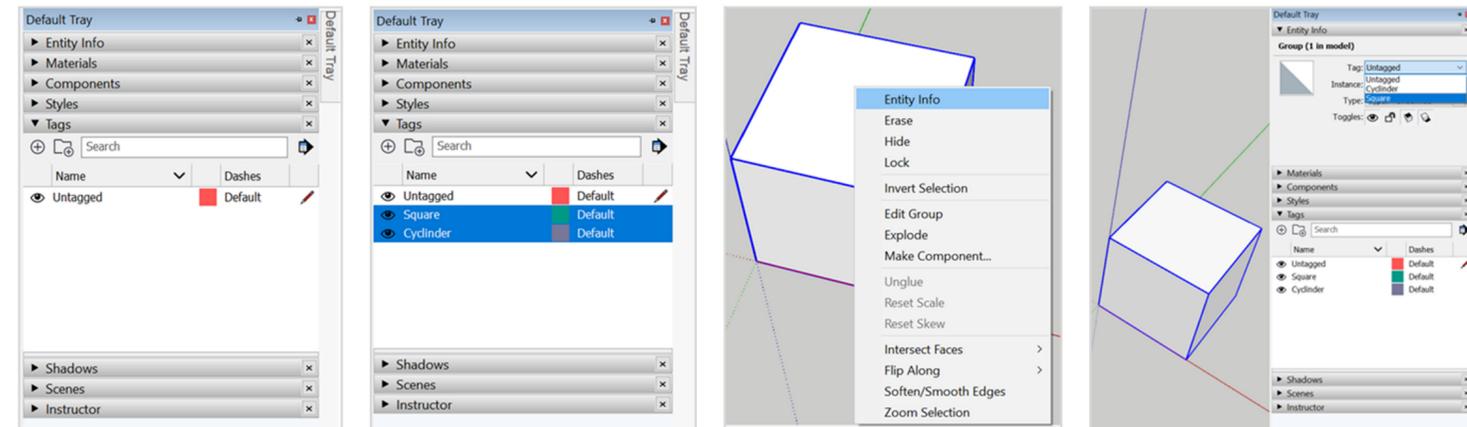
1. Select Tools > Solid tools > Trim
2. Overlap the cylinder on the square
3. The first solid you select is your cutting tool. The second solid you select is what is cut . e.g Cylinder cuts a hole into the square)



**Trim**  
 tool = One solid trims another but remains in the model.

# Layers: Tags

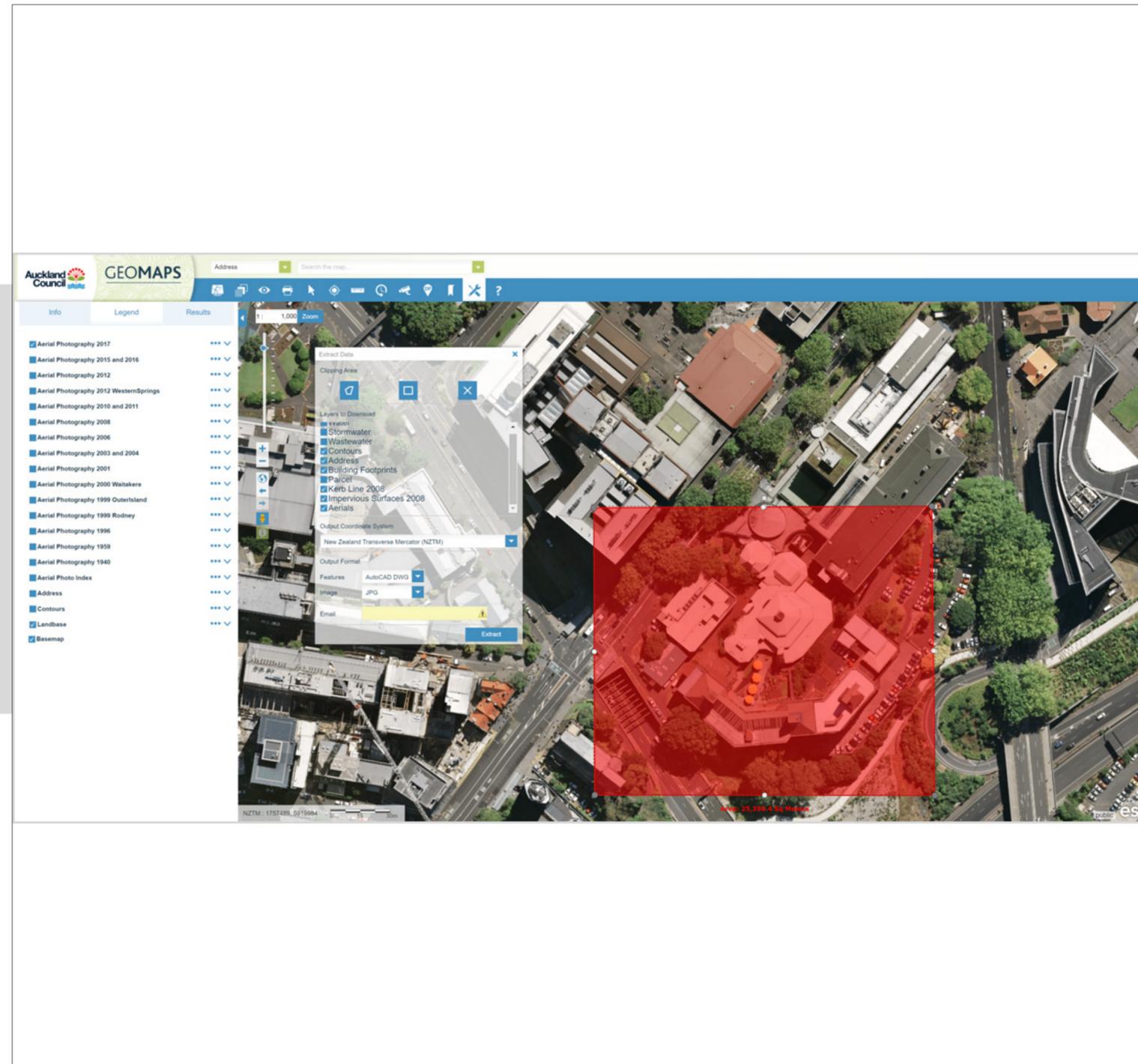
1. Click Default tray > Tags
2. Click to add tags ( e.g Square + cylinder) (Double click tag to rename)
3. Moving components to a tag > Select the component > Right click > Select entity info > Entity Info dialog box opens
4. Click onto the tag drop down list > Choose where you want the component to move to



Work with layers, just like photoshop - easier to select and hide things.

# Importing GIS map into SketchUp

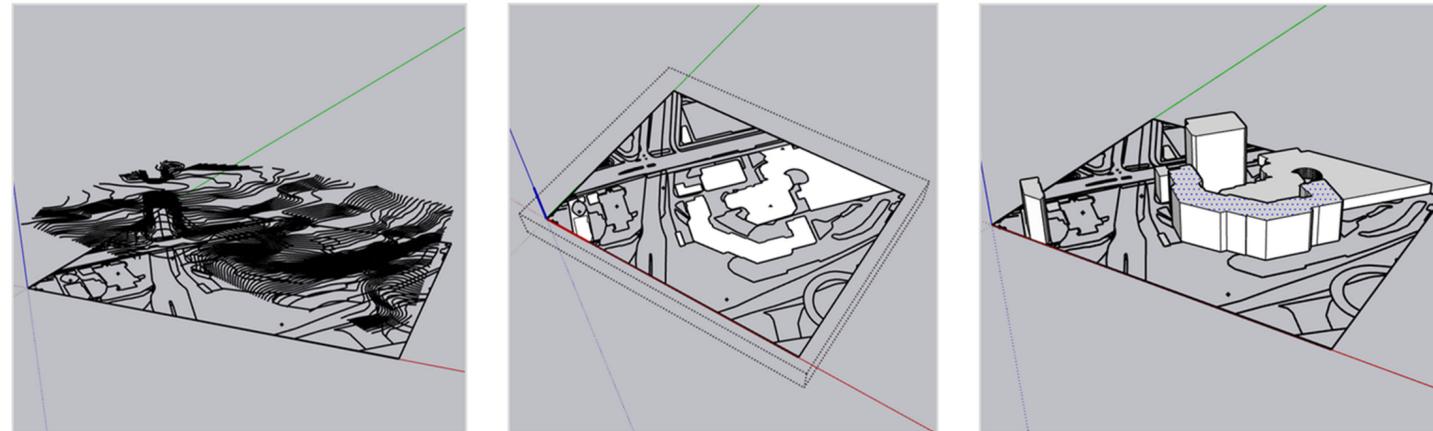
- 1). Open GeoMaps (Auckland Council)
- 2). Select Extract Data
- 3). Tick the boxes, as per the image - Choose Clipping Area > Choose NZTM / Feature: Auto DWG > Image: JPG > Put in your email address > Select Extract



Note: Sometimes it takes hours (or longer) for the data to be emailed to you, so just check up on your emails. Also, the data given to you is only downloadable for 24 hours, so make sure you download it as soon as you get it!

# Importing GIS map into SketchUp

Locating the file from Mail  
 1). All files will be sent to your email from GIS@aucklandcouncil.govt.nz  
 2). Open up the file > Save the DWG and JPG

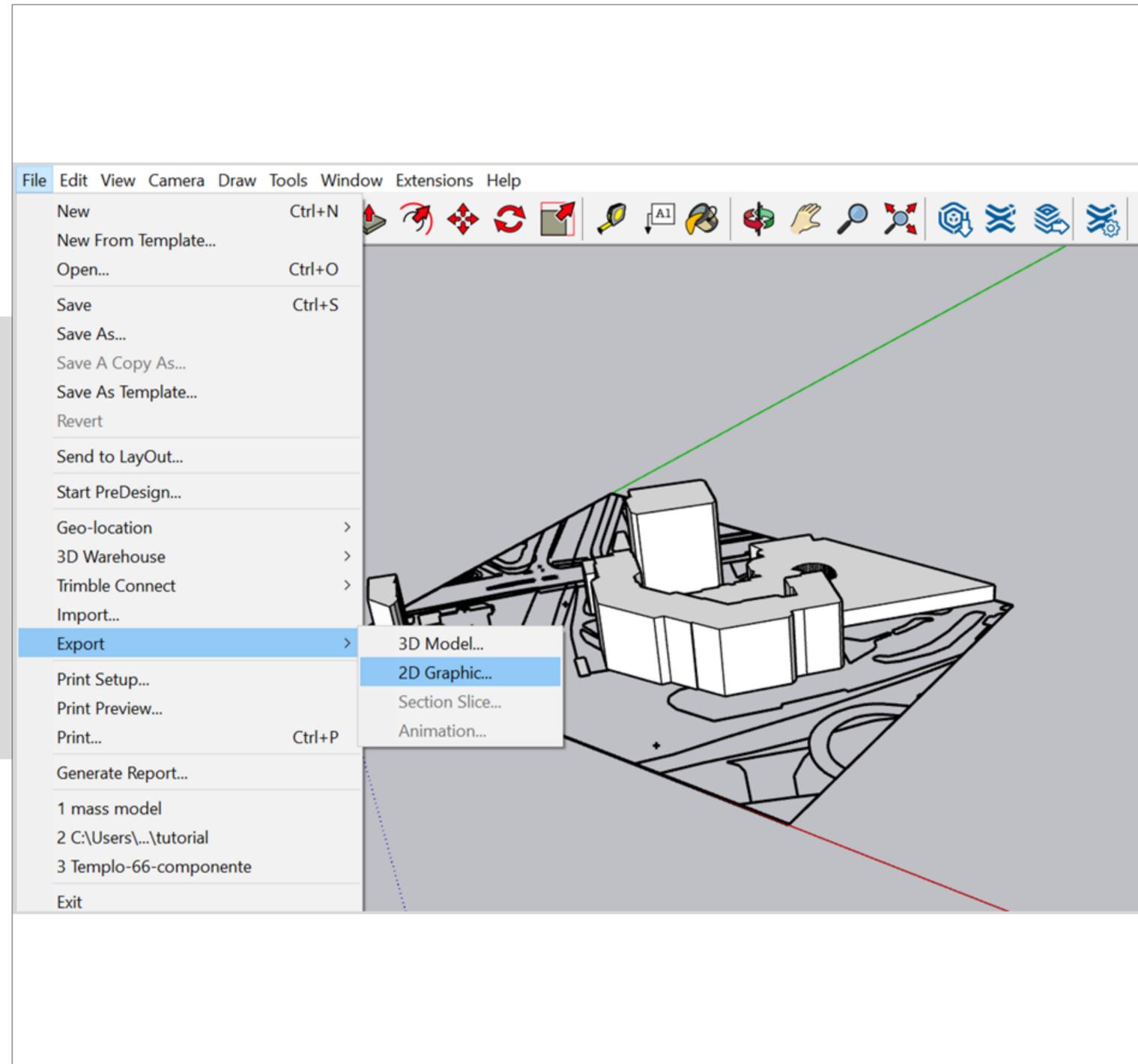


Placing the model in SketchUp:

- 1) Open up SketchUp > File > Import > Choose the file you want to import, DWG or JPG
- 2). Select DWG Image > Right Click > Edit Component > Remove contour (If needed) > Use line tool to draw over lines which will fill the shape.
3. Select Site > Right Click > Explode DWG > Pull/Push to the desired height

# Exporting as PDF, JPEG, PNG or DWG

Exporting the Model:  
1) File > Export > 2D Graphic  
2). Save as a PDF / JPEG / PNG (2D images for editing on Photoshop and Illustrator) or save as a DWG (for modelling software's)



Exporting the Model (3D)  
1). File > Export > 3D Model  
2). Save to the desired file format you want, (OBJ, 3DS, DWG, DXF, etc)

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