Assignment 2:
Linking Software

Parametric Modeling: Perforated Metal Panel

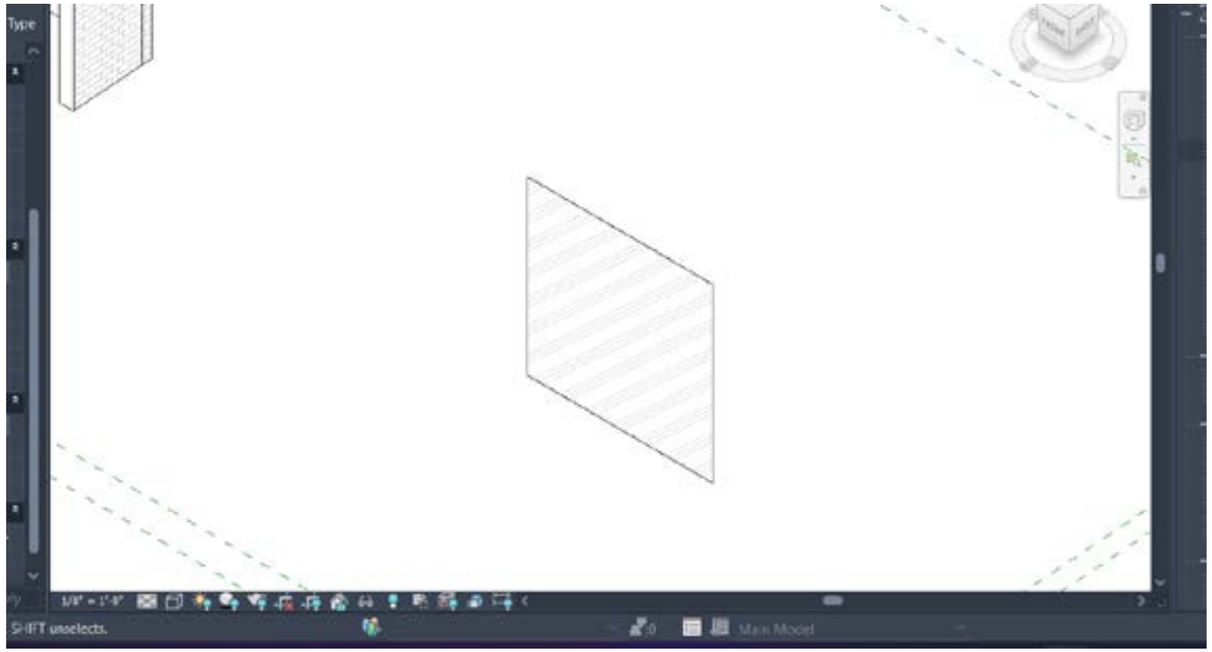
Thinking Process

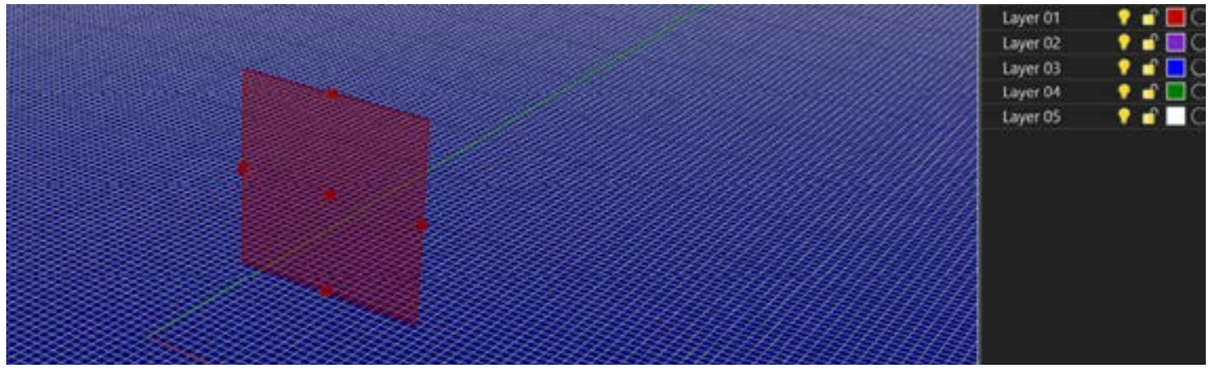
Idea

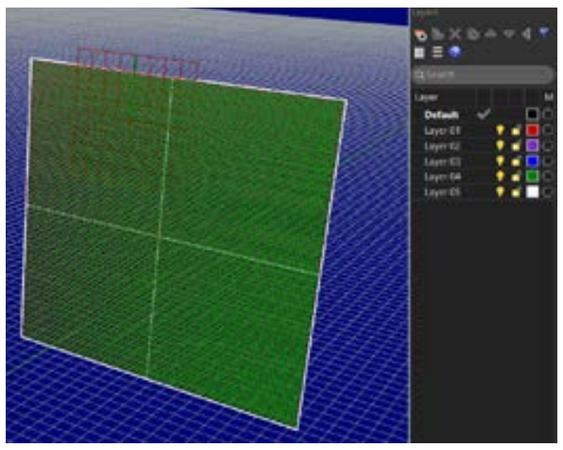
Create a wall in revit that can create a perforated surface that will show up without having to see it in a realistic view or a rendering software. The idea is to be able to show the walls in elevation/ section.

Thought process

For the walls to appear the way I wanted them to. I had to work backwards and realize that I needed the wall profile to show all the holes that I was interested in seeing. I would take an existing wall profile that I want the boundary of the wall to look like. Then I would divide that surface to create the holes. Then add a shape to those holes to cut out of the wall.







Part 1:

Step 1: Create wall in revit

Step 2: Shape profile to what you want wall to look like

Step 3: Open Rhino Inside Revit then Grasshopper

Step 4: Apply wall as geographical element in script to attain profile

Step 5: Bake profile surface

Part 2:

Step 1: Divide wall with points

Step 2: Remove outside points (nothing will be cut through them)

Step 3: Add text (if desired) and separate points inside of curve from outside

Step 4: Arange gradient and reshape cutouts

Step 5: Bake profile surface

Part 3:

Step 1: Use surface pattern as profile for wall

Step 2: apply wall type to wall pattern.

Step 3: Bake as revit wall