

# ASSIGNMENT 03

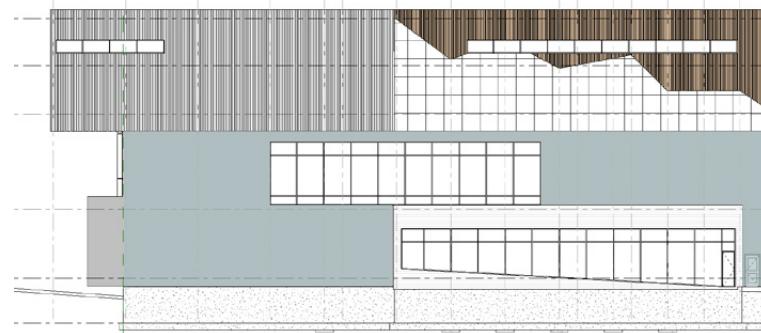
## Digital Design Model

### 1. Design Problem

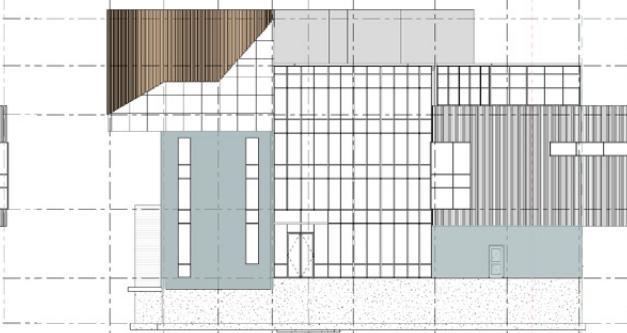
I wan to create a facade panel system to wrap the bottom of the building I'm designing in studio.

My final decisions on exterior finishes are still in progress but the panel system would be applied to the areas in blue on the elevations below

NORTH



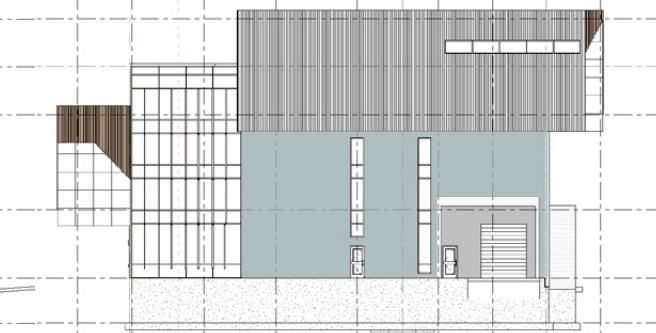
EAST



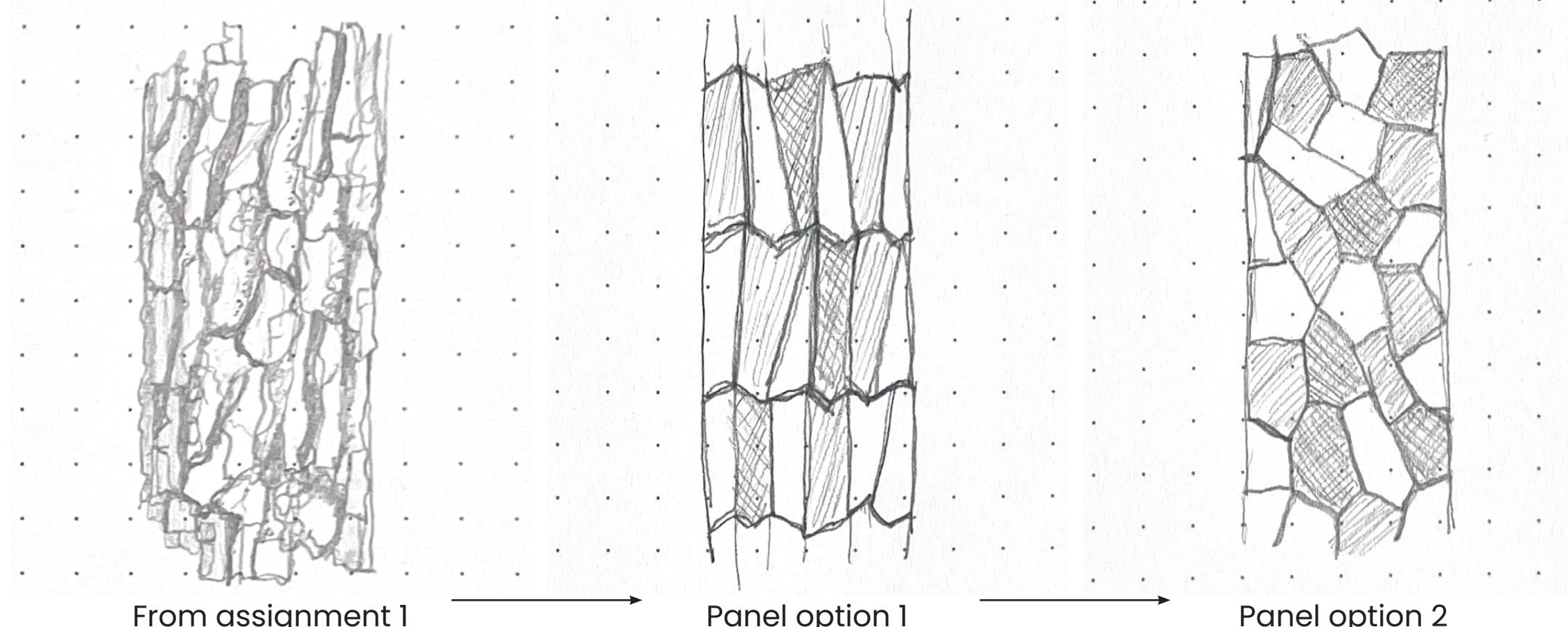
SOUTH



WEST



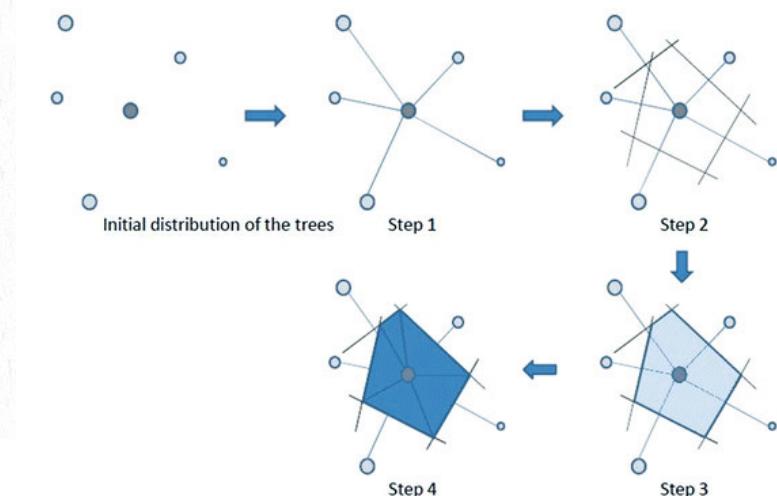
### 2. Initial Ideas



### 3. Parameters

- Size of panels
- Irregularity of shape
- Color
- Boundary of pattern

I found the concept of a voronoi pattern though my studio professor and I felt like this wold be the best way to achieve the irregular panels I want to develop.

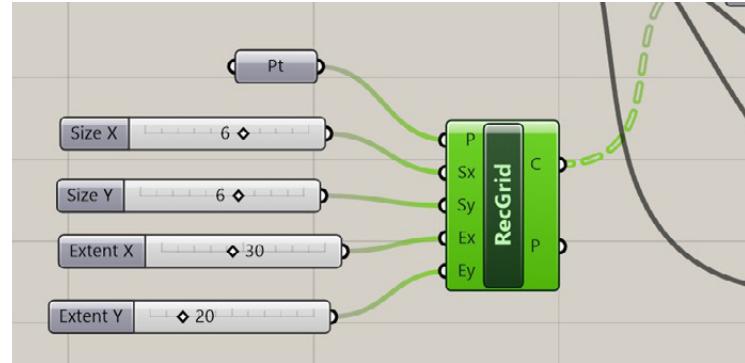


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## Digital Design Model

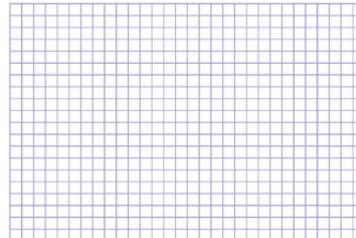
### Parametric Inputs

#### GRID



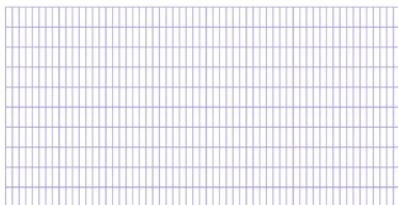
The first step in this script is to make a grid which will determine the rough side of the panels by adjusting the size sliders and the number of panels by adjusting the extent sliders

#### Outcomes

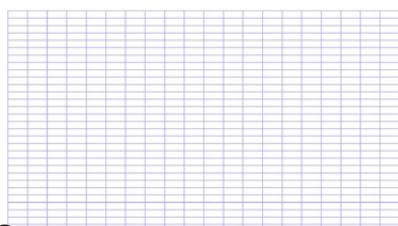


- 6' by 6'
- 30 across
- 20 high

1

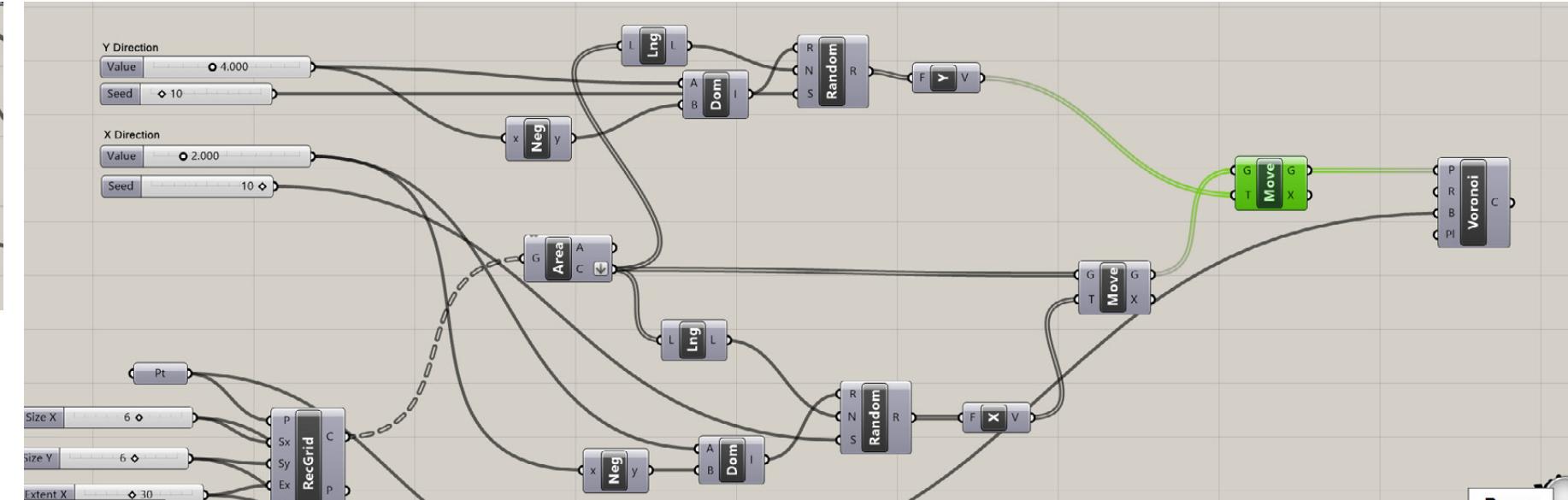


2

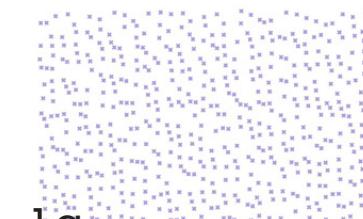


3

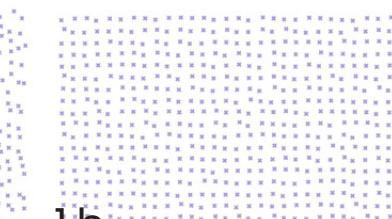
#### MOVING CENTER POINT



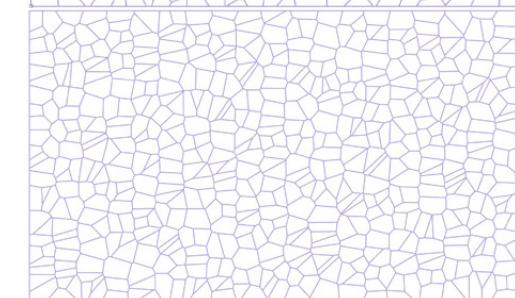
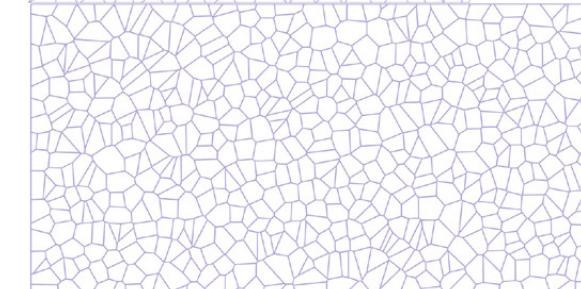
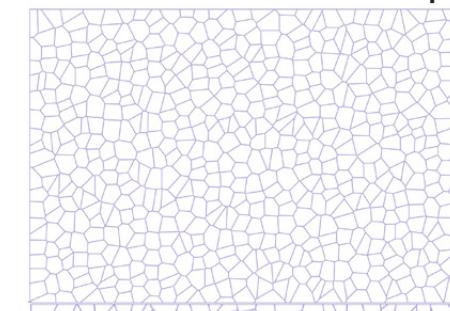
a) Y: 4  
X: 2



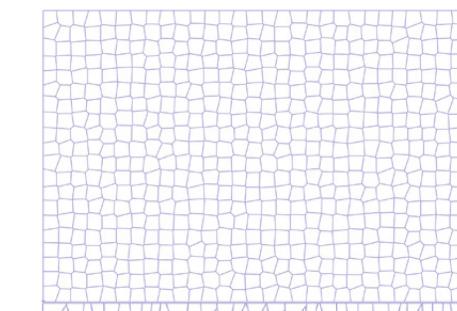
b) Y: 1  
X: 1



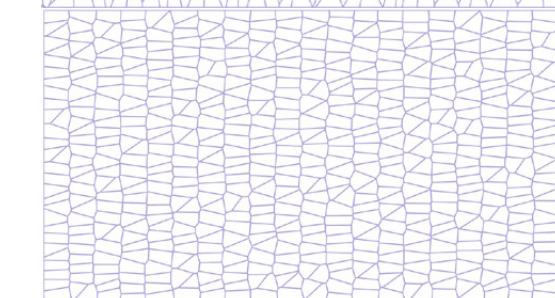
With Voronoi Pattern Component



1.b



2.b



3.b

#### VORONOI PATTERN

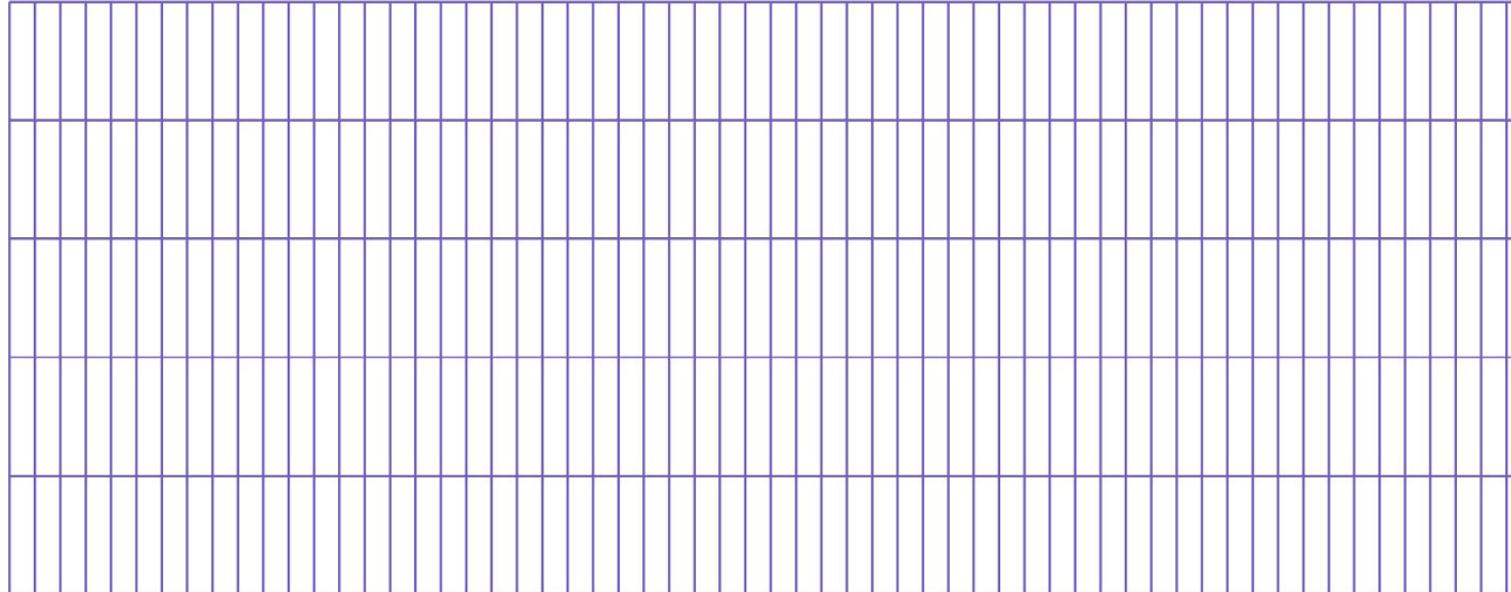
The next step is randomly moving the center point of each cell randomly in the x and Y direction. This will ultimately create infinite possibilities of patterns for the panels using the Voronoi component.

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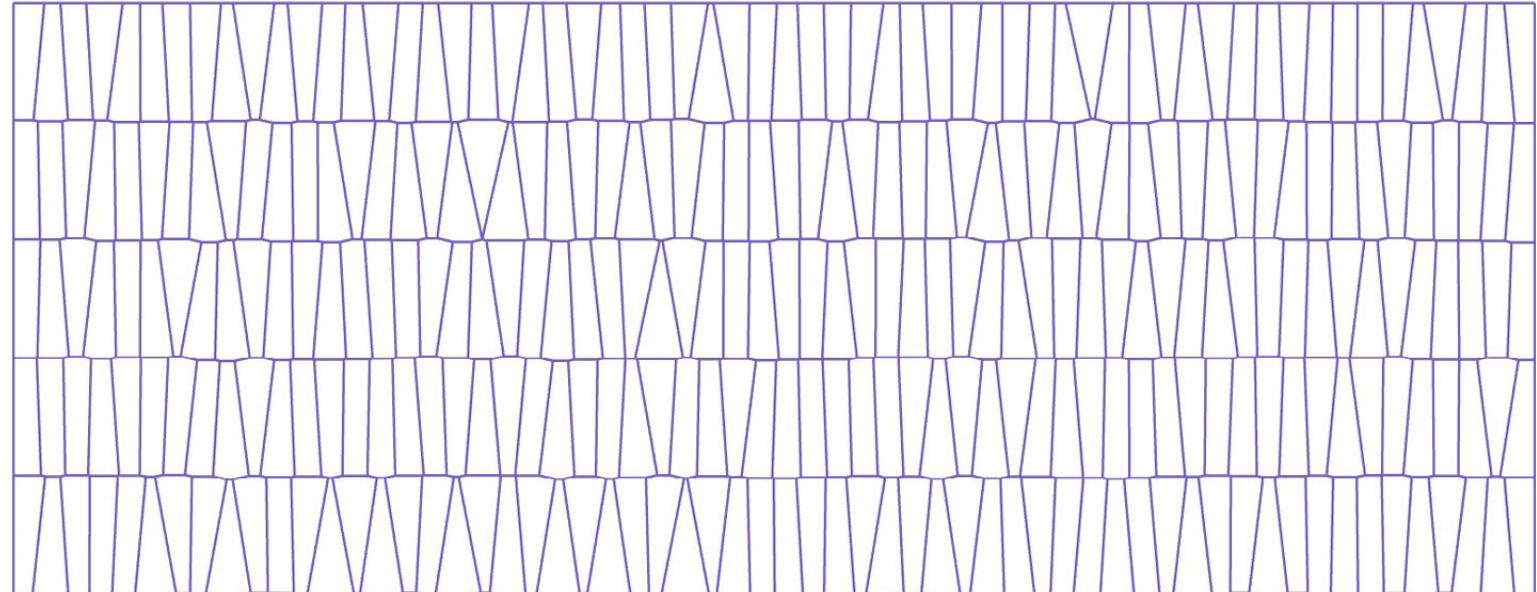
## Digital Design Model

### Selected Parameters for Facade Panels

Panel Size: 1.5' by 7'

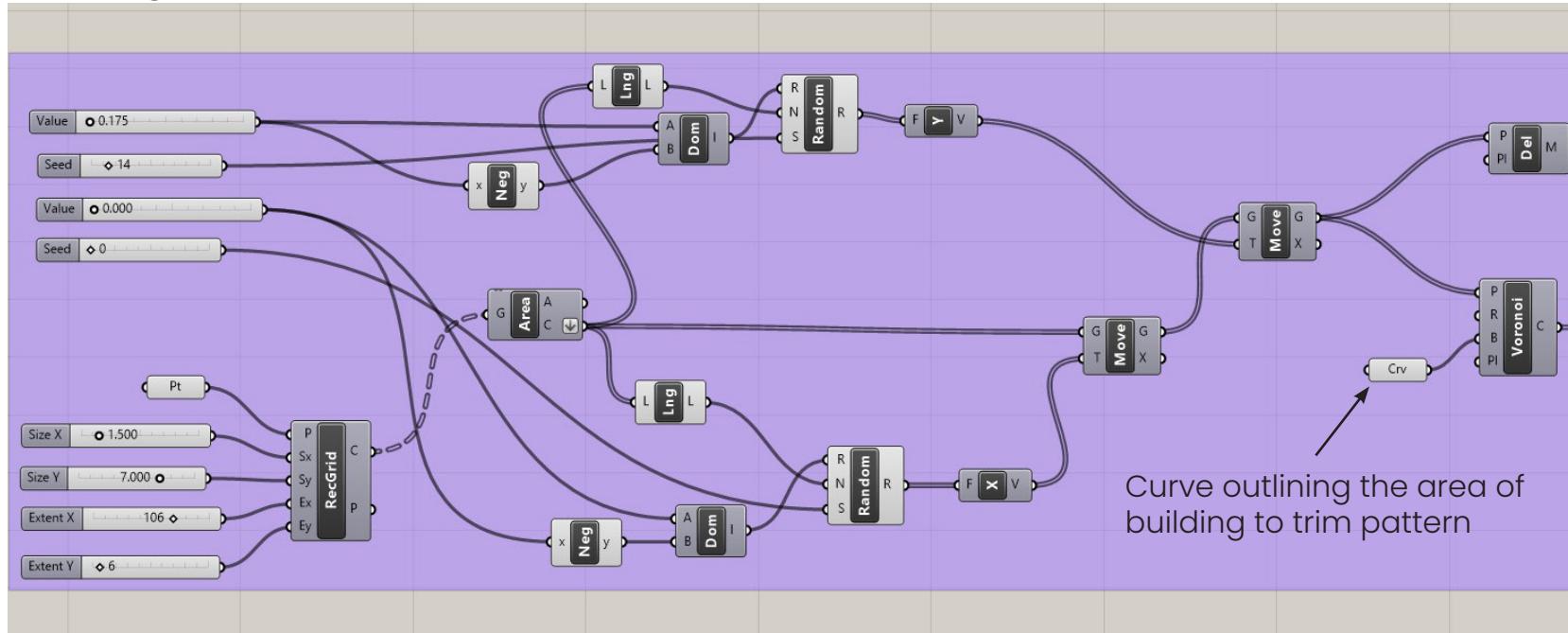


Movement of center point: Y: .175 X:0

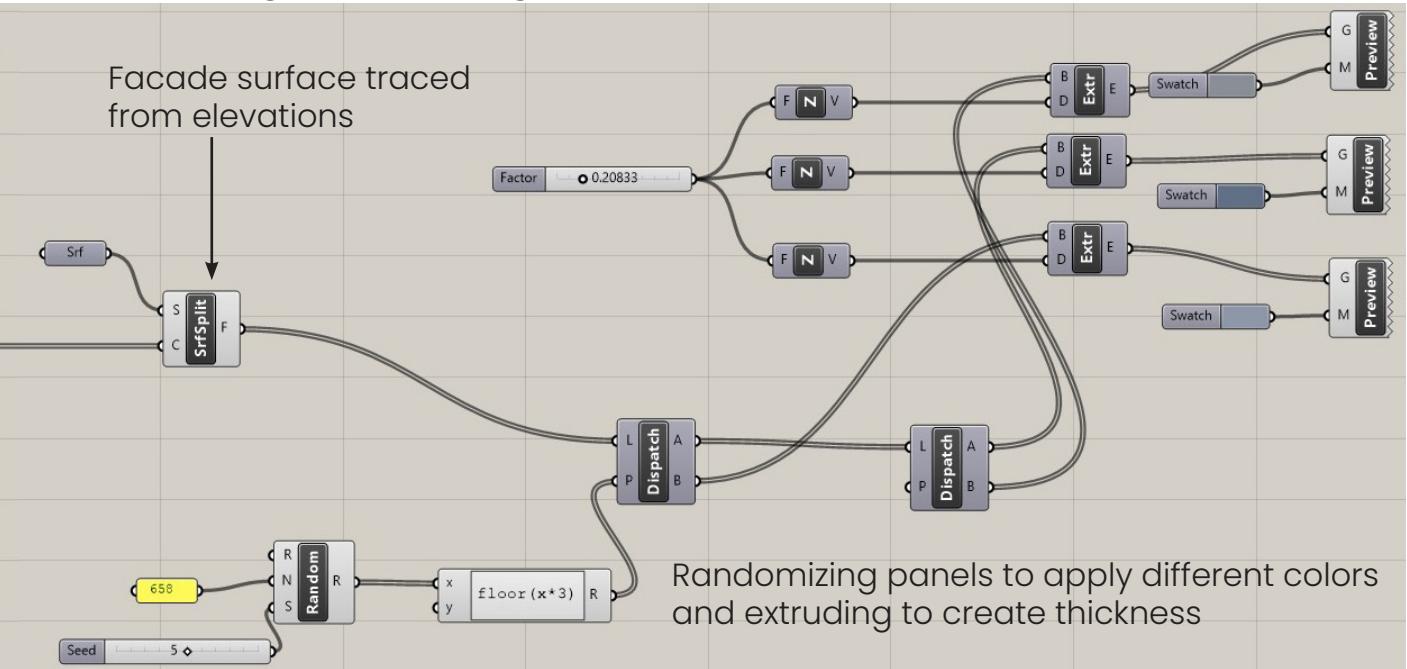


This size panel works the best with the openings in my building and I wanted to cheese a very subtle voronoi pattern so that the facade isn't too busy

### Building Voronoi Pattern



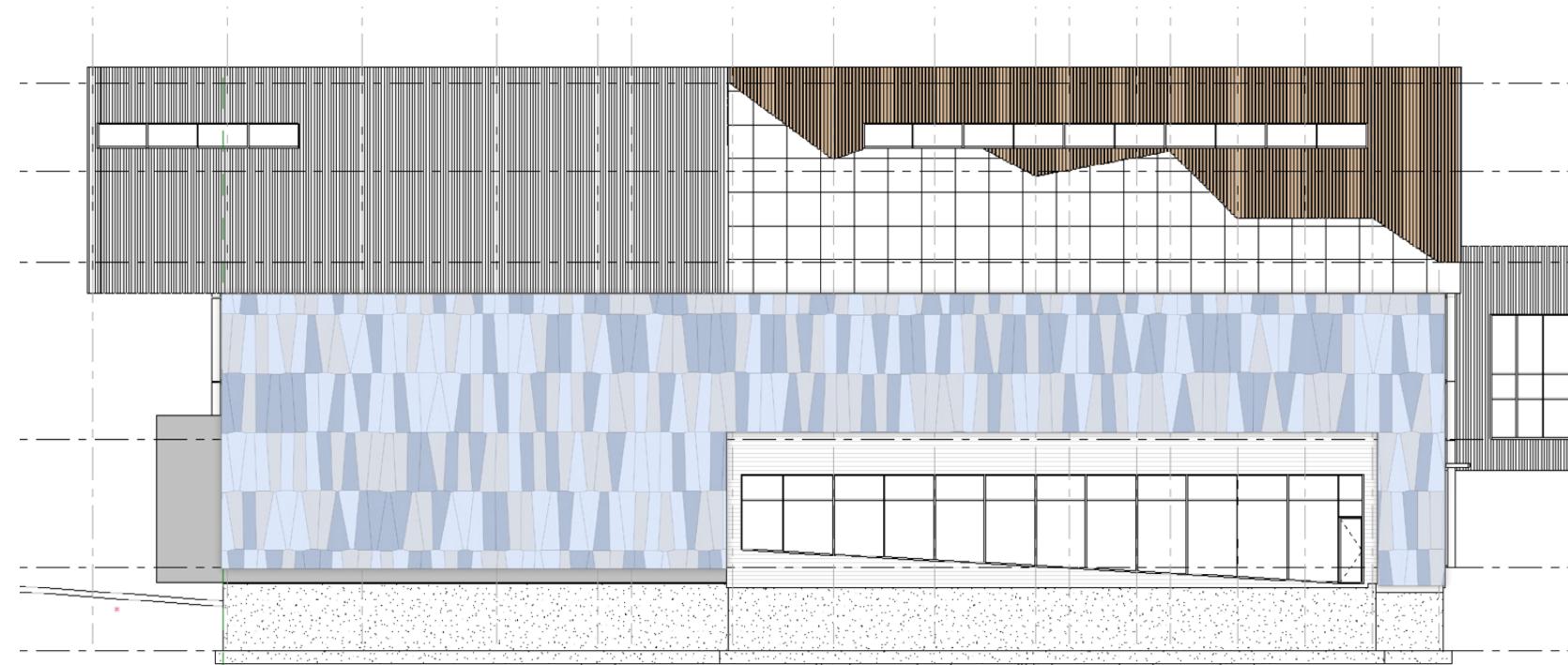
### Customizing for Building Facade



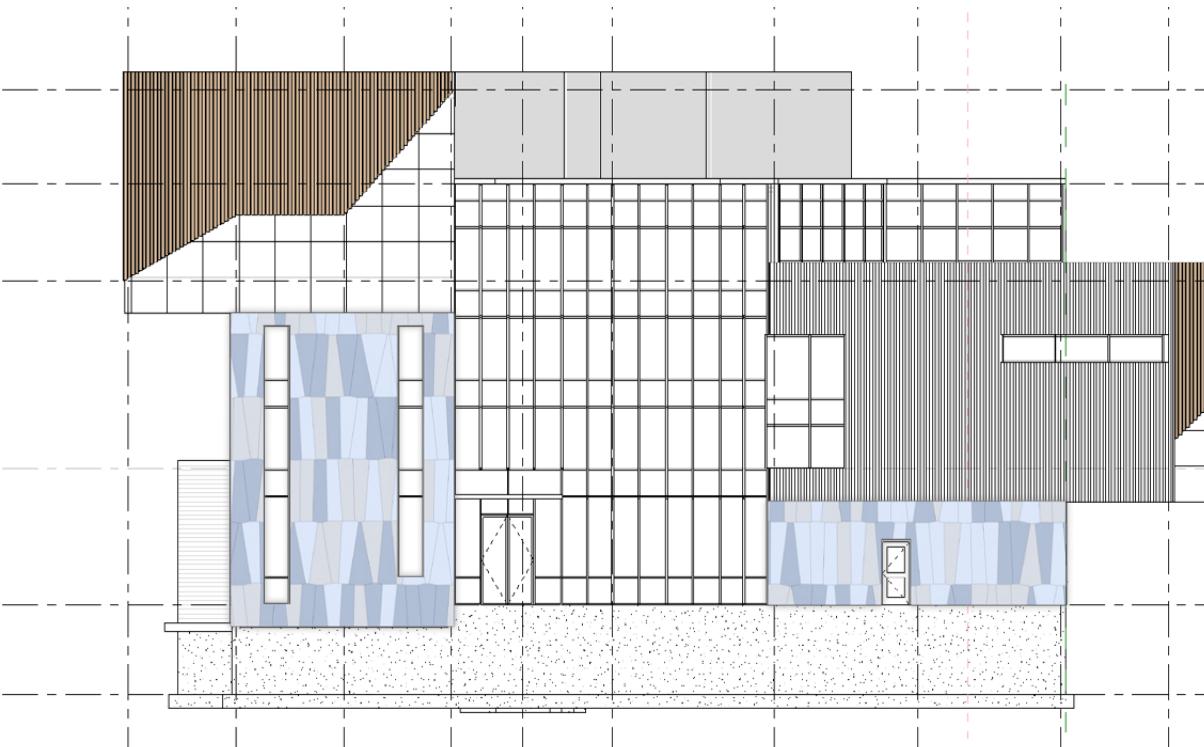
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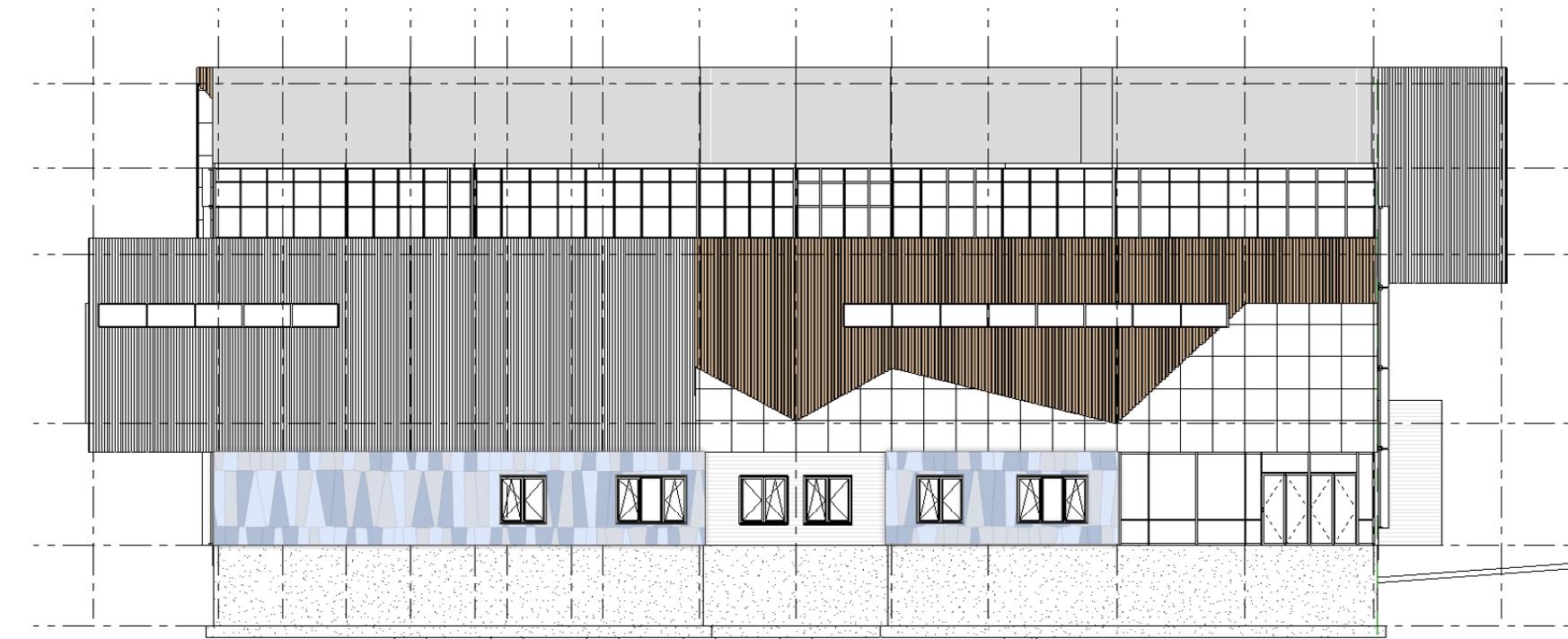
NORTH



EAST



SOUTH



WEST

