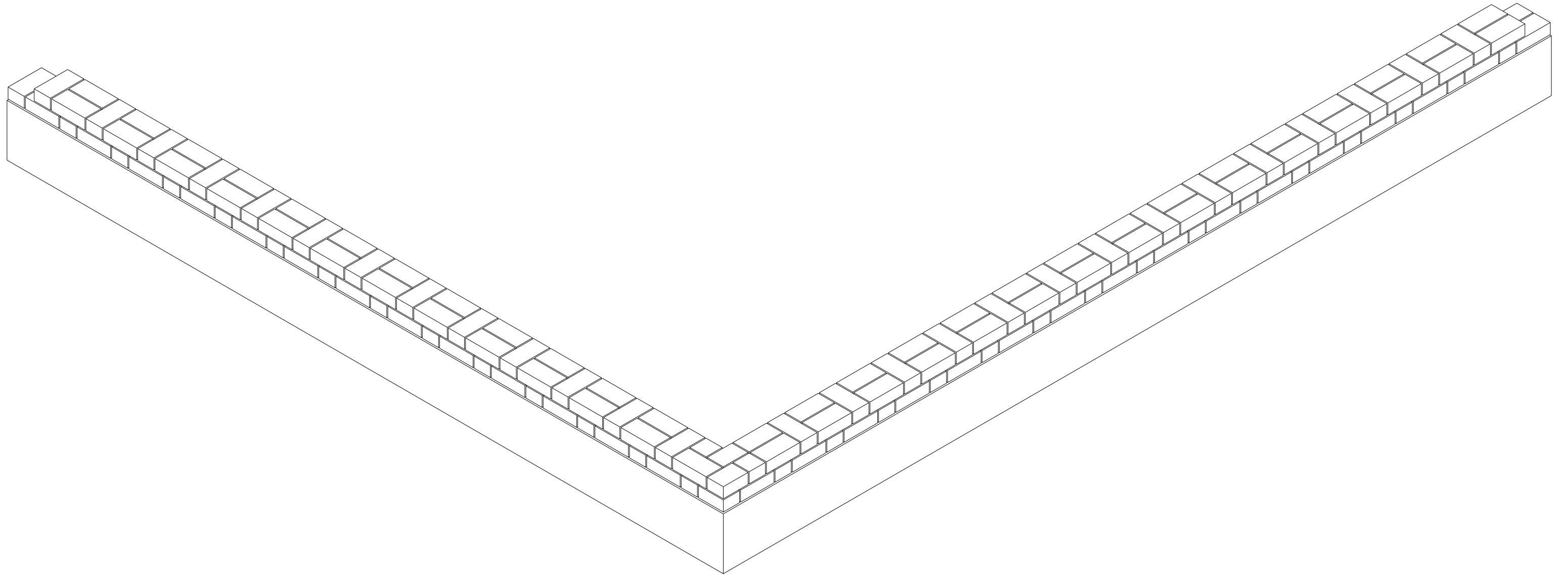
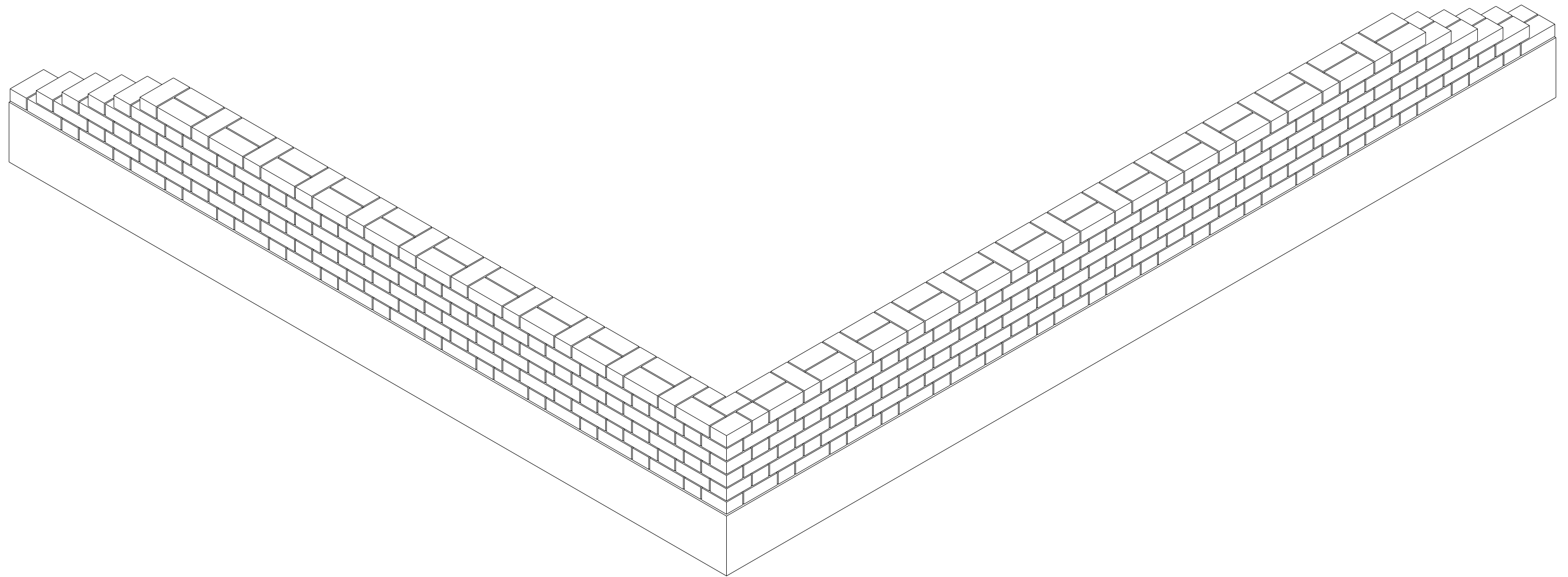


**Design Assignment 2.1: BONDING EXERCISE**  
**Standard Bonding Pattern**



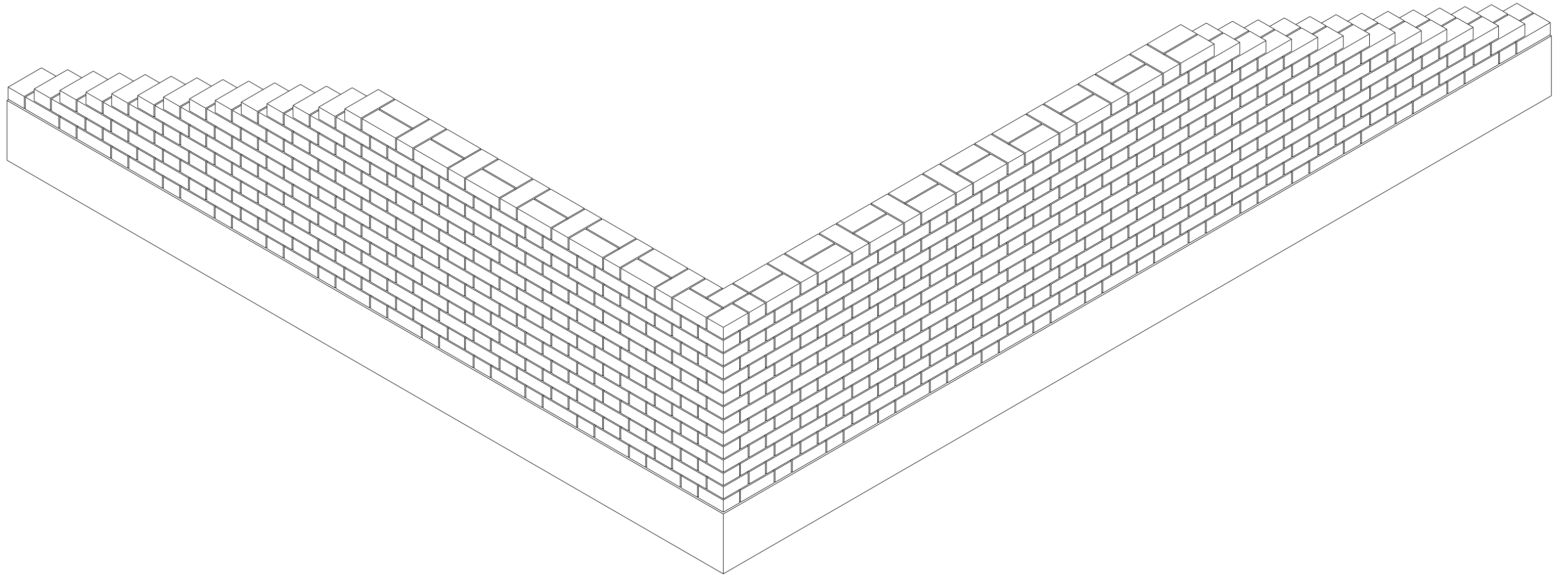
**Flemish Bond**

**Design Assignment 2.1: BONDING EXERCISE**  
**Standard Bonding Pattern**



Flmeish Bond

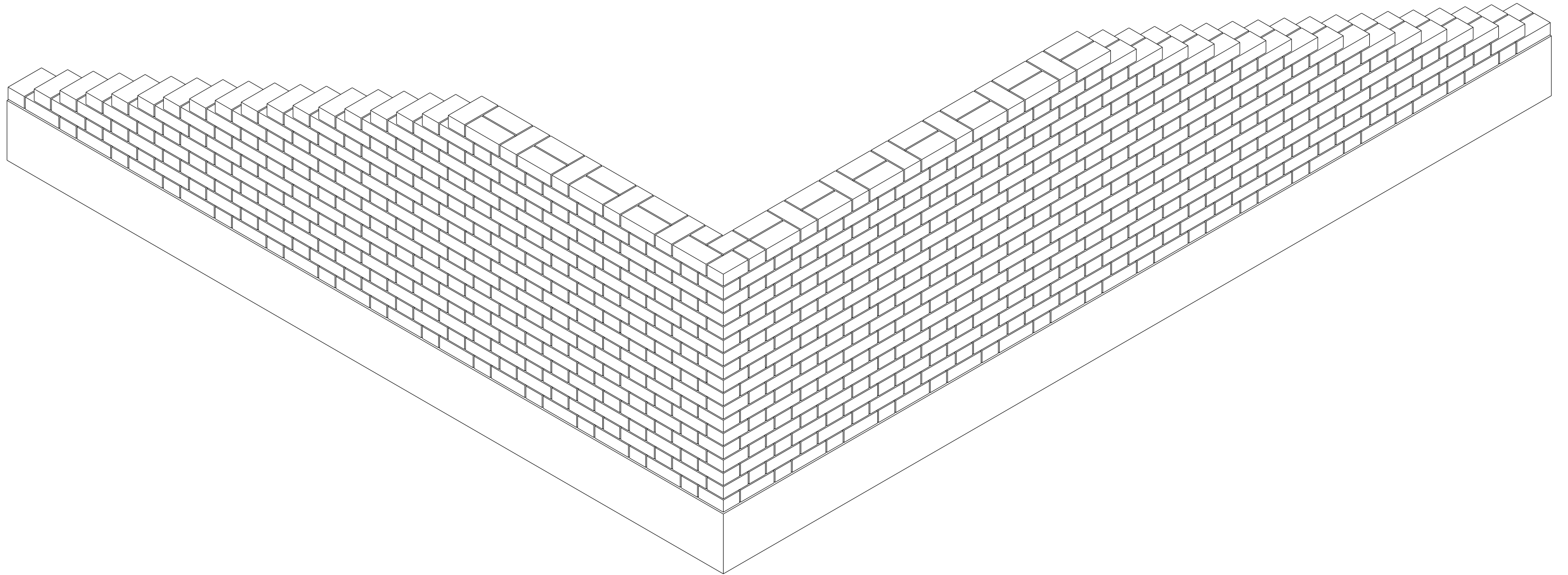
**Design Assignment 2.1: BONDING EXERCISE**  
**Standard Bonding Pattern**



**Flemish Bond**

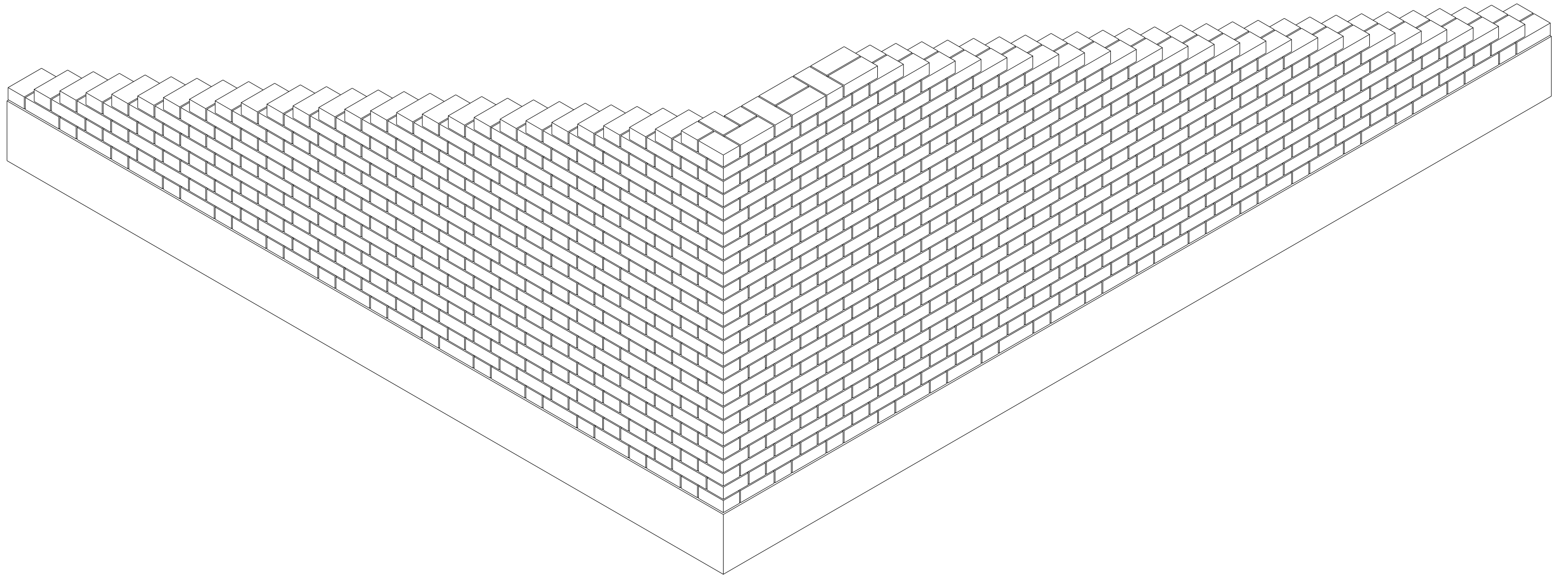
## Design Assignment 2.1: BONDING EXERCISE

### Standard Bonding Pattern



Flemish Bond

**Design Assignment 2.1: BONDING EXERCISE**  
**Standard Bonding Pattern**



**Flemish Bond**

**Design Assignment 2.1: BONDING EXERCISE**  
**Inspirations: Villa Moerkensheide / Dieter De Vos Architecten**



**Design Assignment 2.1: BONDING EXERCISE**

**Inspirations: Villa Moerkensheide / Dieter De Vos Architecten**



## Design Assignment 2.1: BONDING EXERCISE

### Process

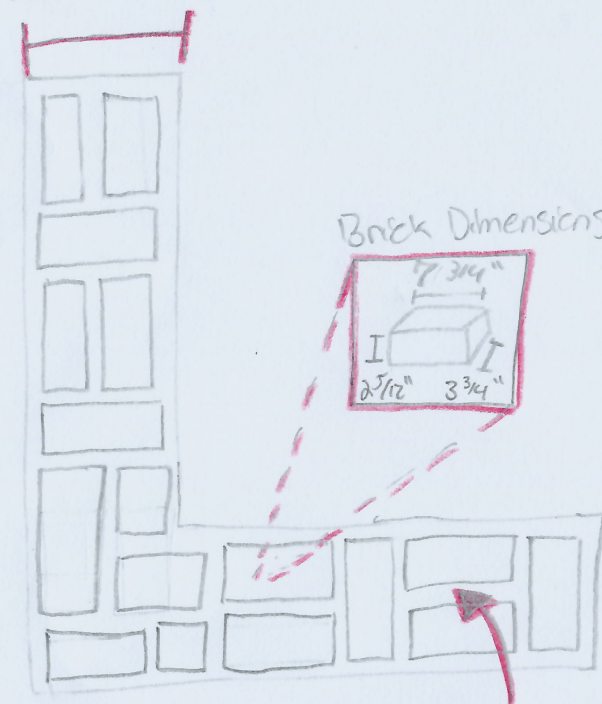
# Flemish Bond Alteration Diagram

## Original Flemish Bond

- Plan View (Not to Scale)

↳ Simple Sketch

Wall = 8" thick

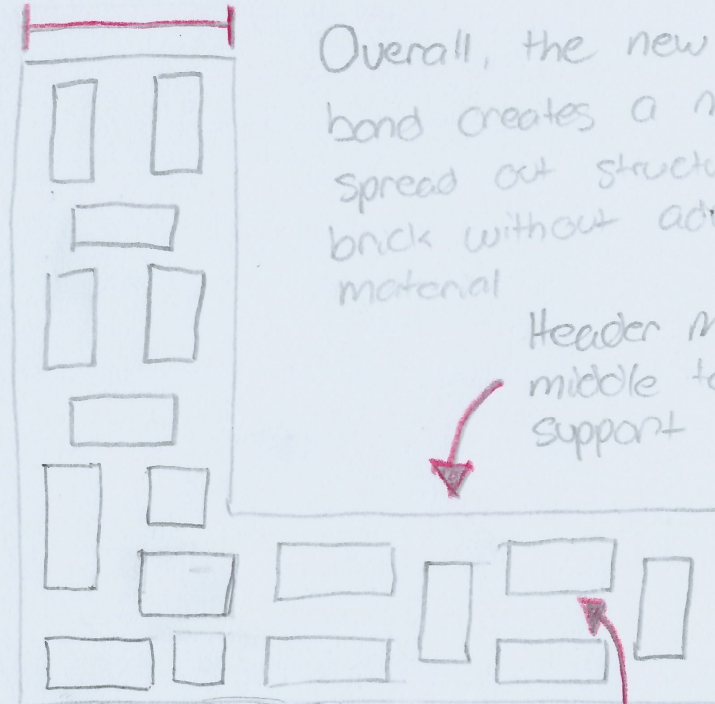


Gap between  
Stretcher:  $1/4$ "

## New Flemish Bond

- Extra 2" cavity added between exterior  
and interior stretchers

Wall = 10" thick



Overall, the new Flemish  
bond creates a more  
spread out structure of  
brick without adding more  
material

Header moved to  
middle to stabilize  
support

Gap between  
Stretcher and header  
Still remains  $1/4$ "

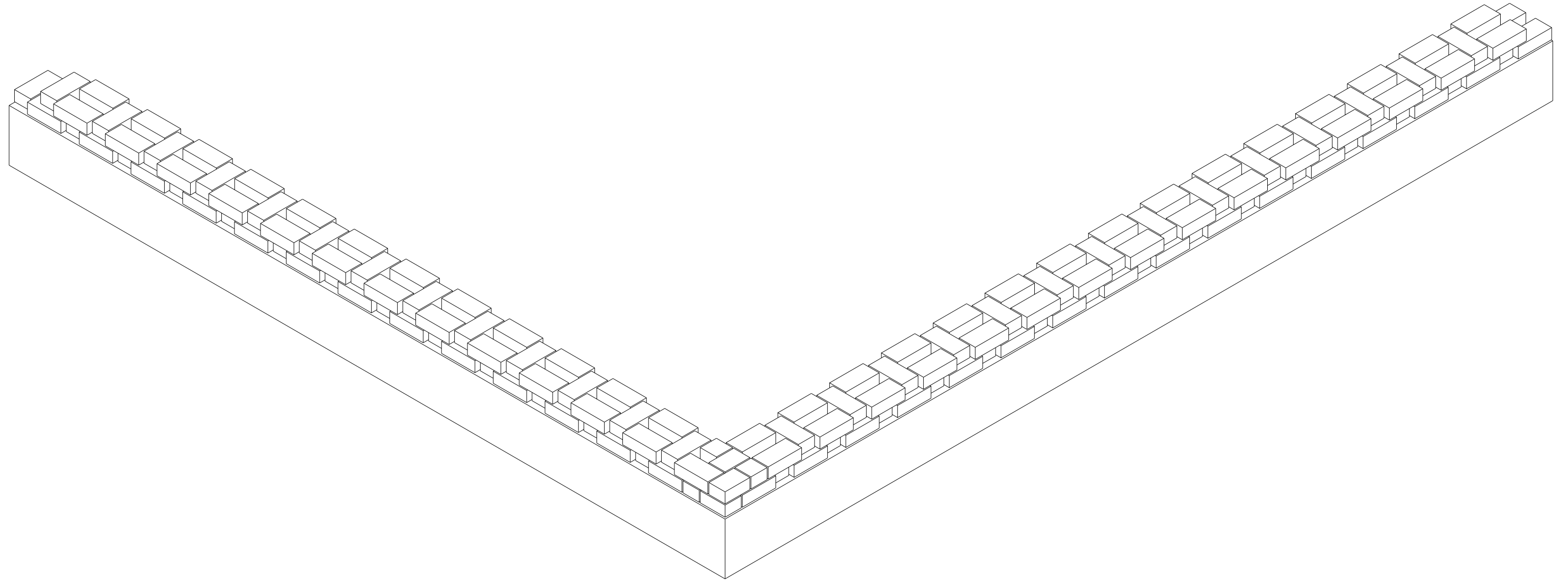
Gap between  
Stretcher:  $2 1/4$ "

Upon Analyzing the original Flemish bond, our group decided to make an alteration in which the cap between stretchers was increased to  $2 1/4$ " instead of the standard  $1/4$ ". By adding an additional two inches of separation, the foundation was expanded to 10" (previously 8"). Separating the stretchers resulted in the headers also needing to be centered. One thing to point out is that the corner of the new structure basically remains the same while the rest of the brick is more spread out. Overall, we found that the new Flemish bond creates a more spread out structure without adding any new material. In addition, it is revealed how the texture of the wall is altered with a simple change with the headers being pushed in resulting in an indent. In the following slides, you will find a new 3D model that replicates this design change.



## Design Assignment 2.1: BONDING EXERCISE

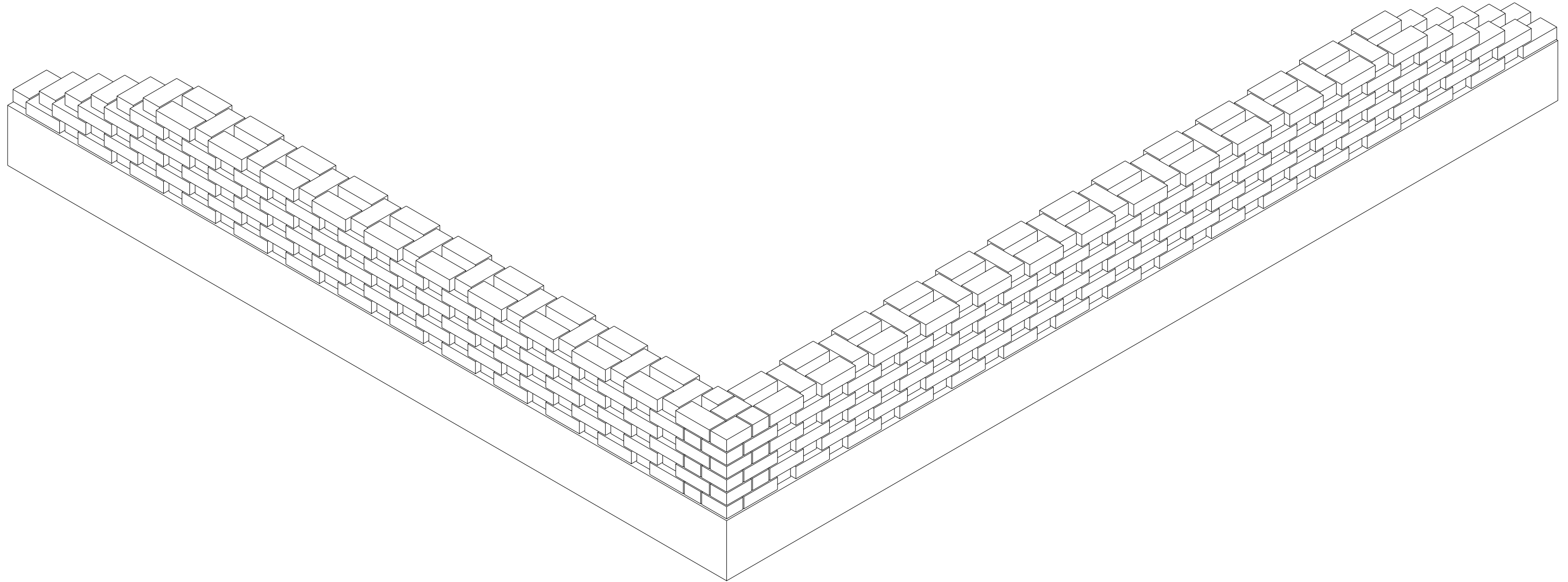
### Experimental Bonding Pattern



Flemish Bond Alteration

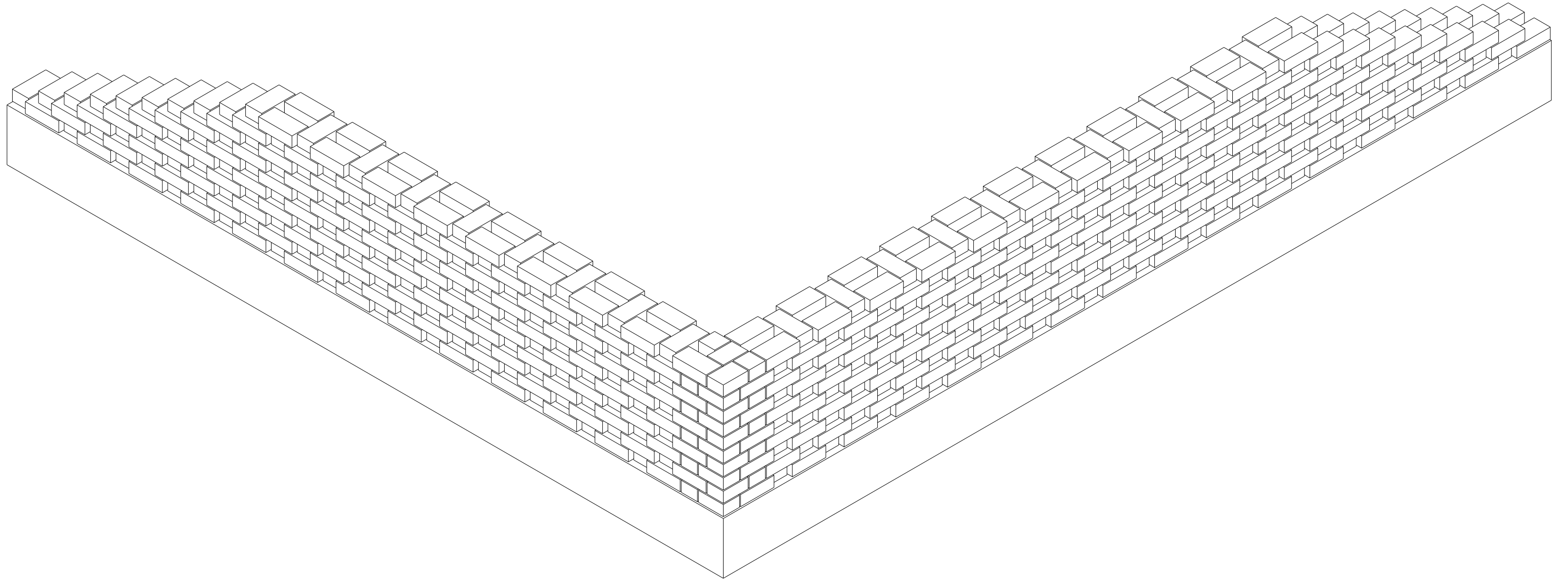
## Design Assignment 2.1: BONDING EXERCISE

### Experimental Bonding Pattern



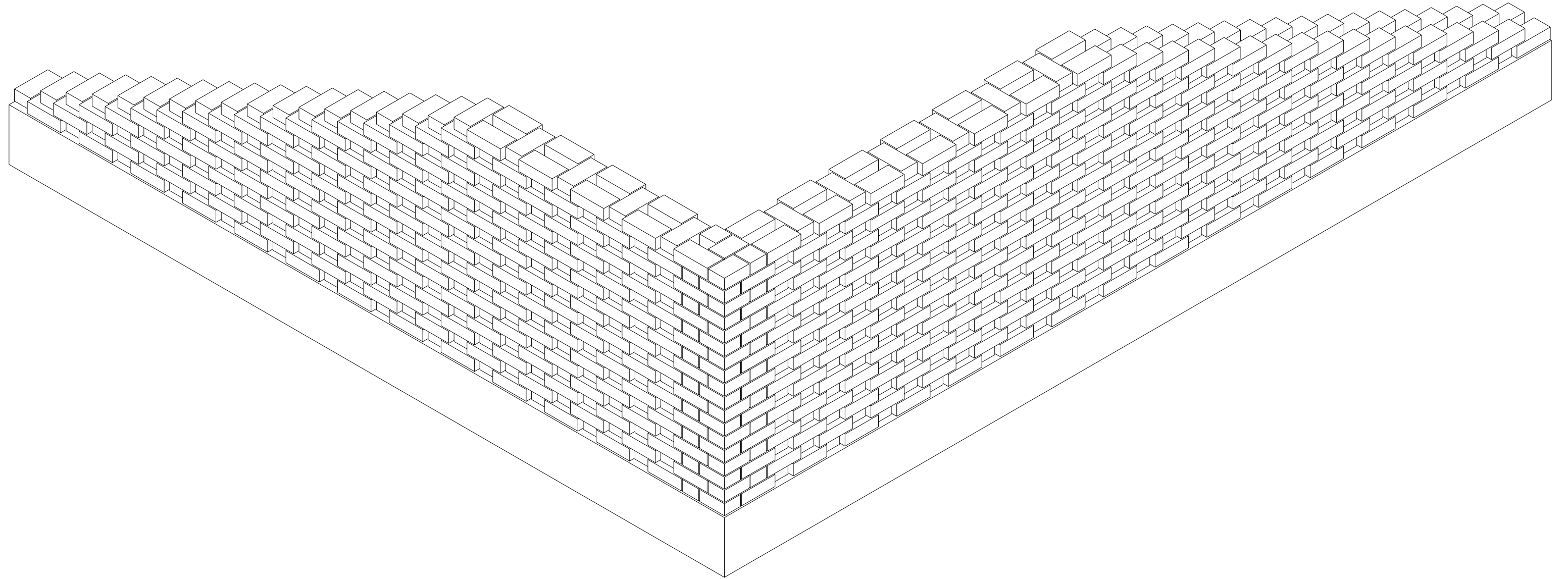
Flemish Bond Alteration

**Design Assignment 2.1: BONDING EXERCISE**  
**Experimental Bonding Pattern**



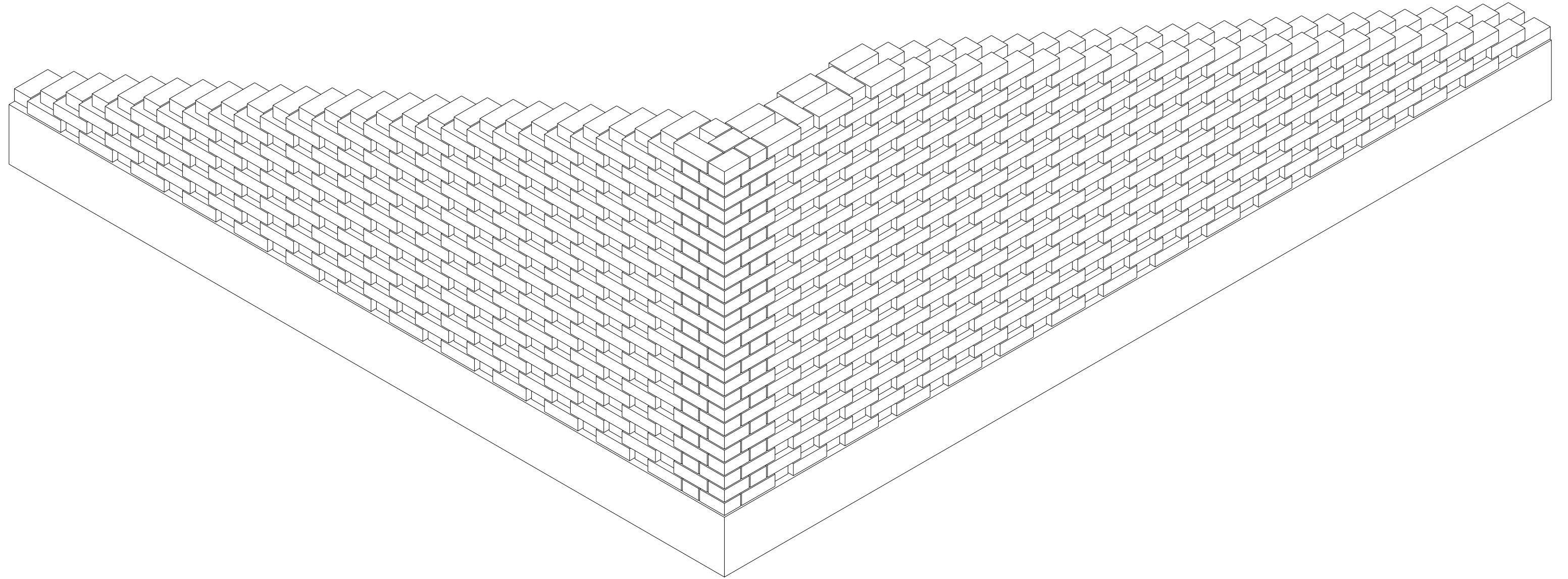
**Flemish Bond Alteration**

**Design Assignment 2.1: BONDING EXERCISE**  
**Experimental Bonding Pattern**



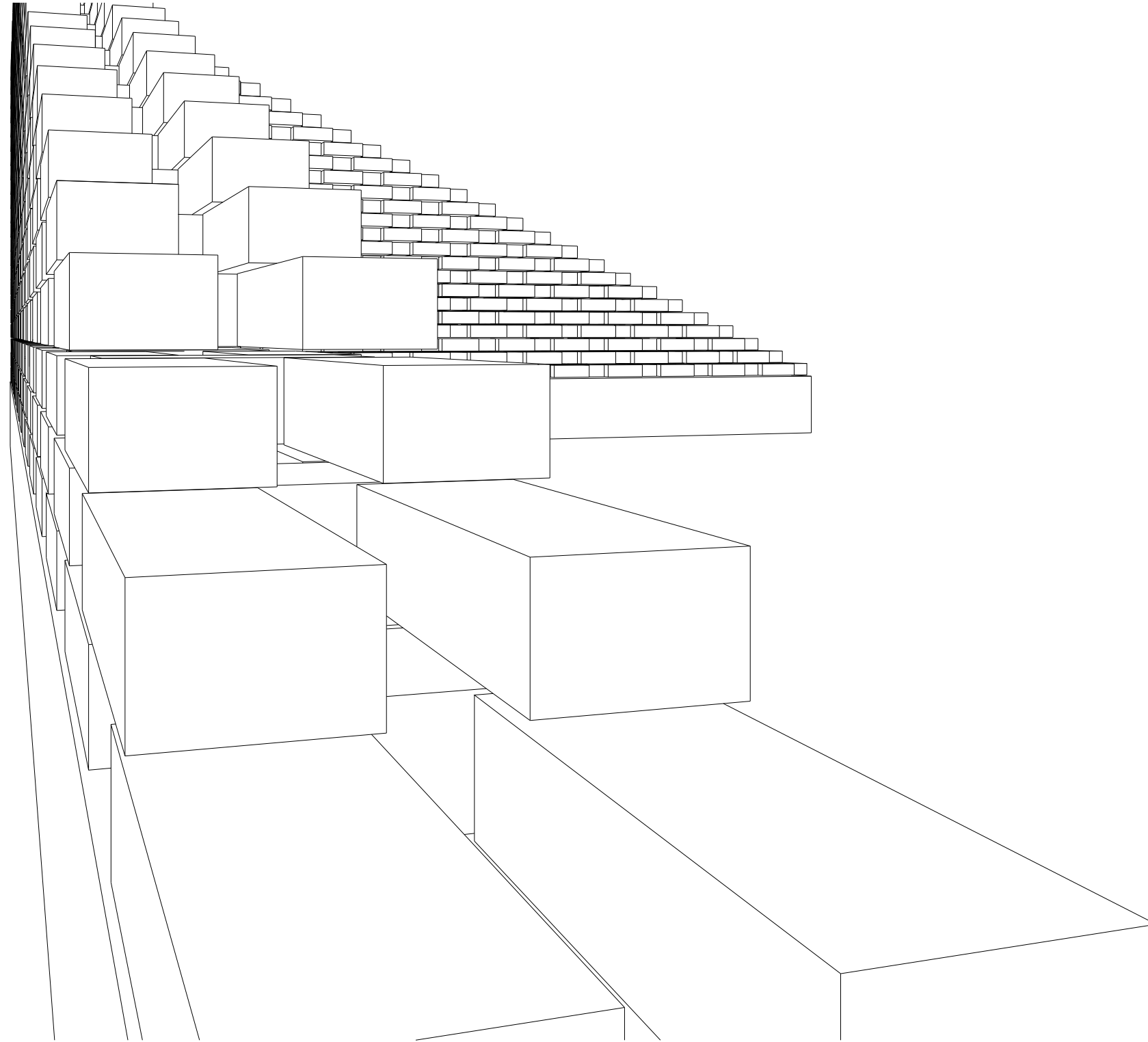
**Flemish Bond Alteration**

**Design Assignment 2.1: BONDING EXERCISE**  
**Experimental Bonding Pattern**



**Flemish Bond Alteration**

**Design Assignment 2.1: BONDING EXERCISE**  
**Experimental Bonding Pattern**



**Flemish Bond Alteration: Zoomed Perspective**