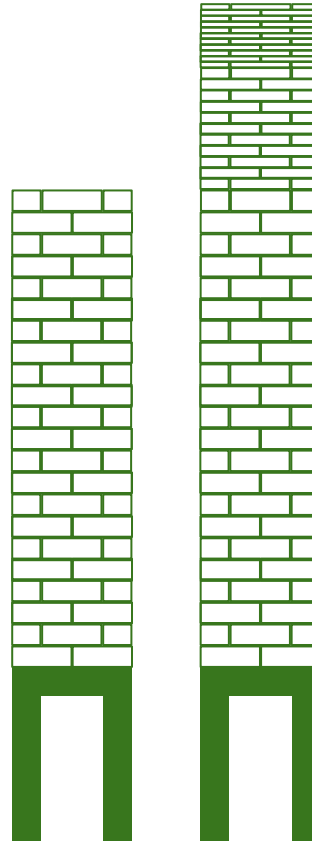


Piers

Issue:

1. Flat roof does not allow for easy PV mounting
2. Sloped roof is needed.
 - a. Resolution - use 3 over 16 roof for PV.

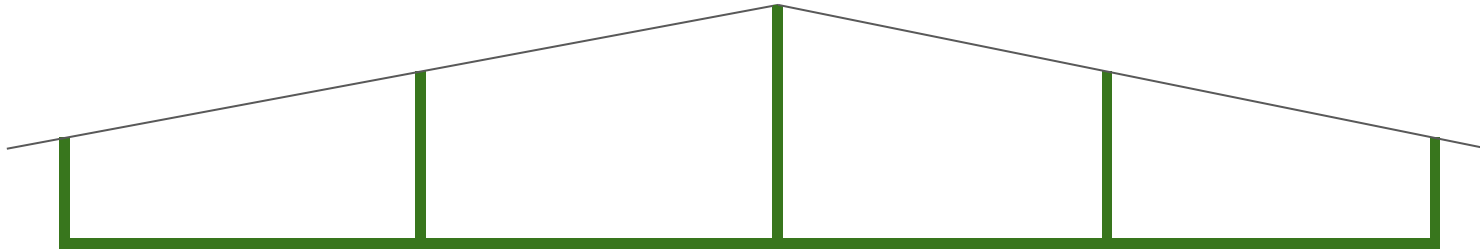
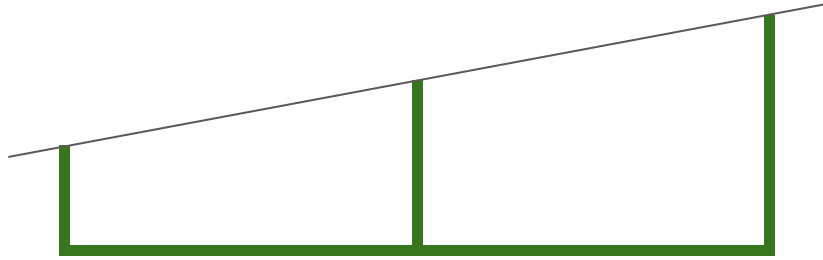
Solution



Shape

Solution:

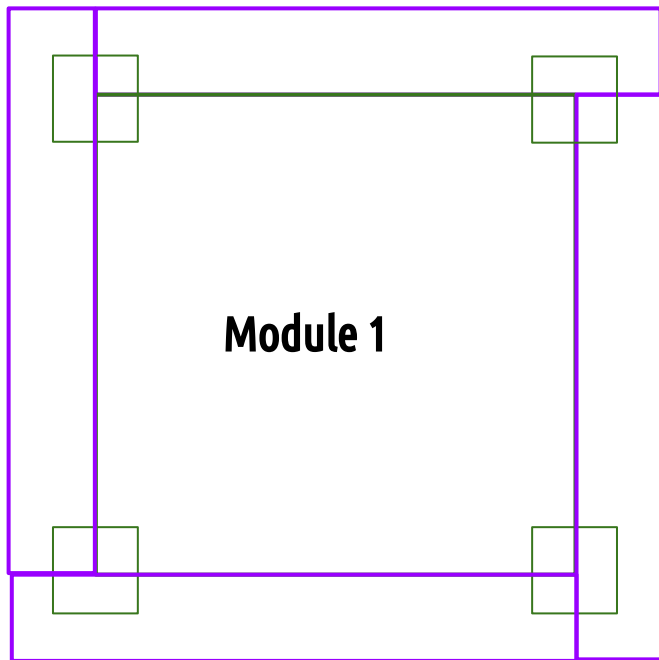
- 5-8-11 roof
 - 5 is functional with storage on the short side
- Or 6-9-12 roof - but that requires more skill in brick laying or triangulation of brick column
- North side is living roof



Modularity

Issue:

1. Need to build one section at a time for easy workshops
 - a. Module 1 is straightforward - including rototilled floor cement + limestone crusher fines
 - b. **Roof** is a 16' section
 - c. Roof section has 2' **overhangs modules**
2. Column modularity - easy with pile foundation
3. Roof Section Modularity



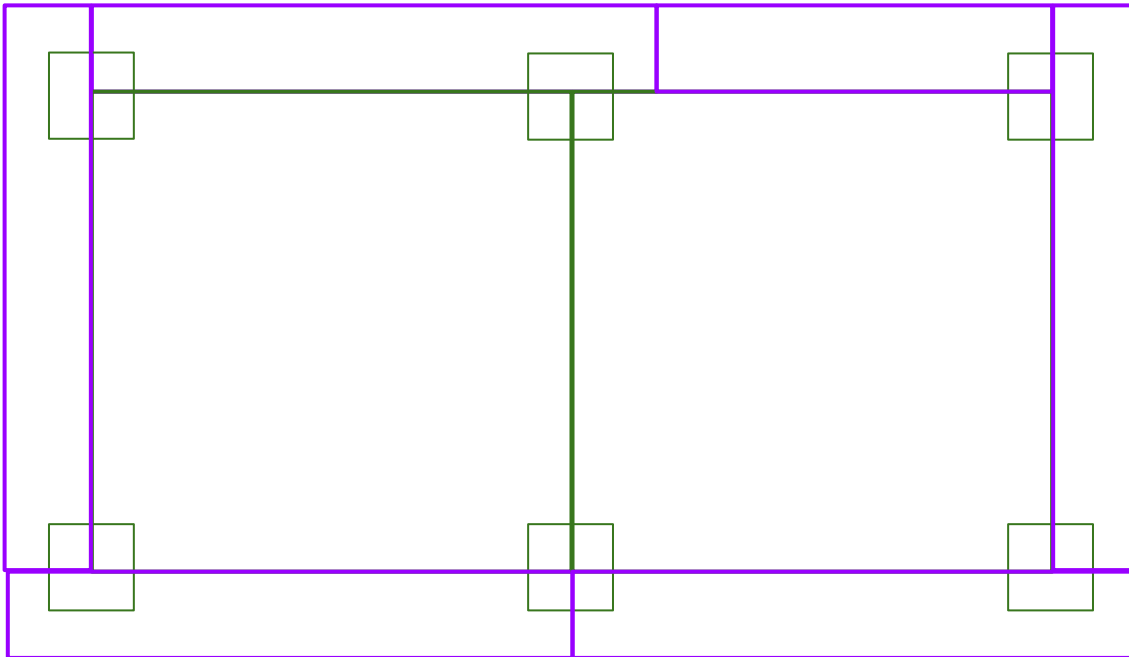
Module 2

North



Issue:

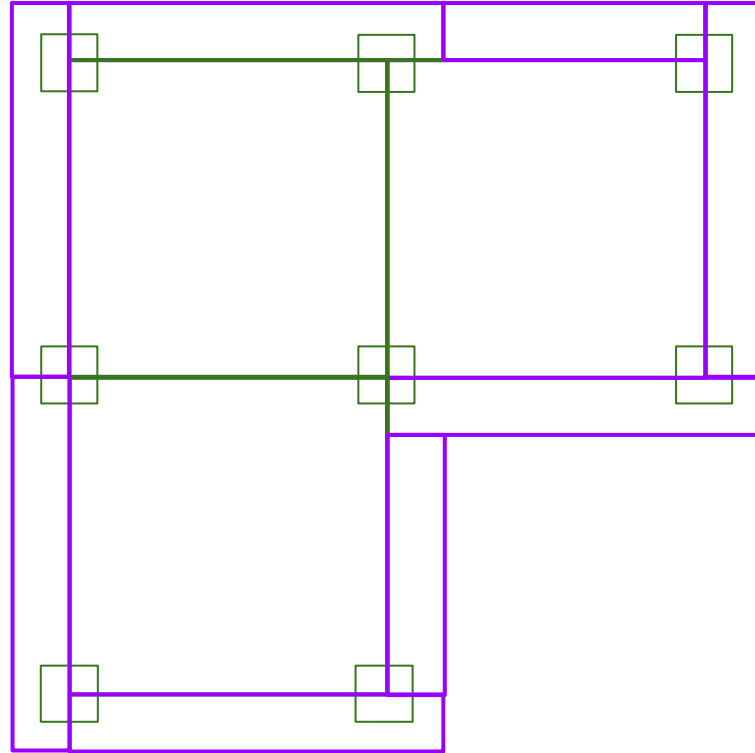
1. Getting to 2nd module -
 - a. Make 2 columns
 - b. Take off right overhang
 - c. Add removed overhang to South side. Zero material waste to this point.
 - d. Make another overhang for East side
 - e. Make shorter overhang for North side



Module 3



1. Getting to 3rd module -
 - a. Make 2 columns
 - b. Take off bottom overhang
 - c. Add removed overhang to South side
 - d. Make another overhang for West side
 - e. Make shorter overhang for East side



Module 4



1. Getting to rth module -
 - a. Make **1 column only**
 - b. Take off 2 interfering overhangs
 - c. Add one removed overhang to East side
 - d. Add one removed overhang to South side
 - e. **Retains 0 overhang waste!**

