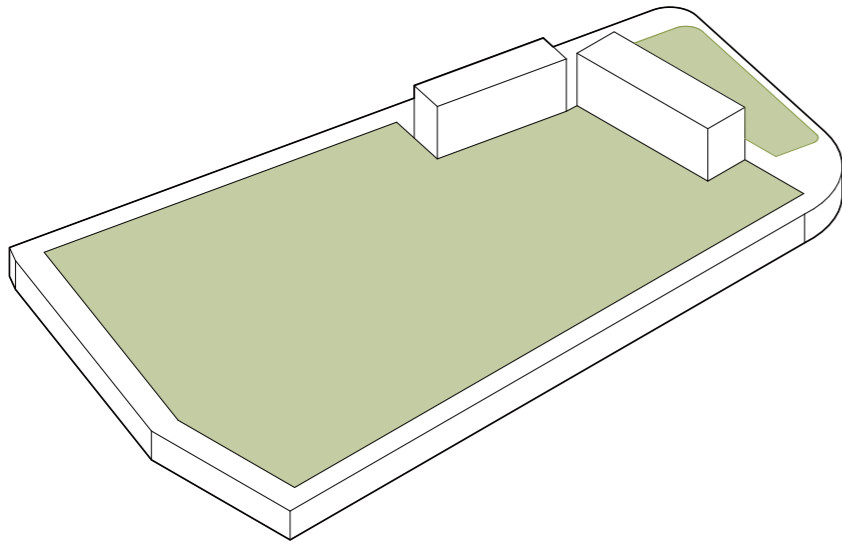
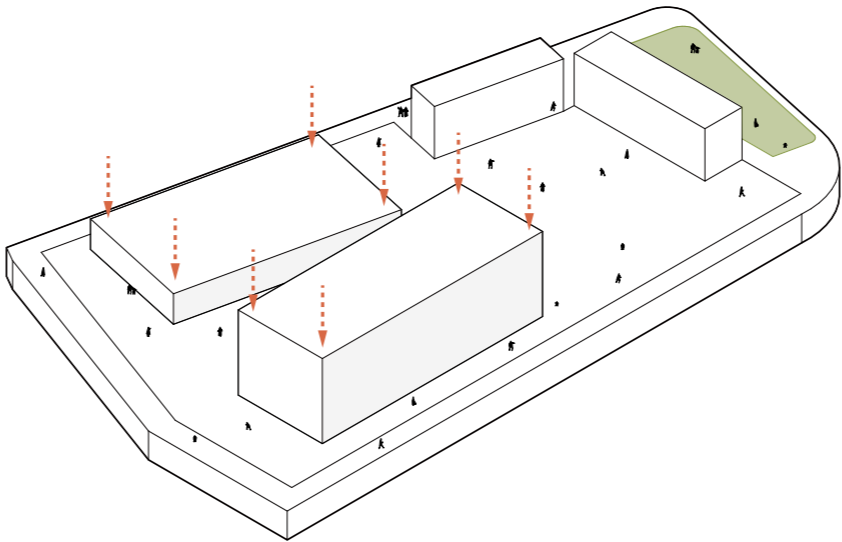


# MASS GENERATION



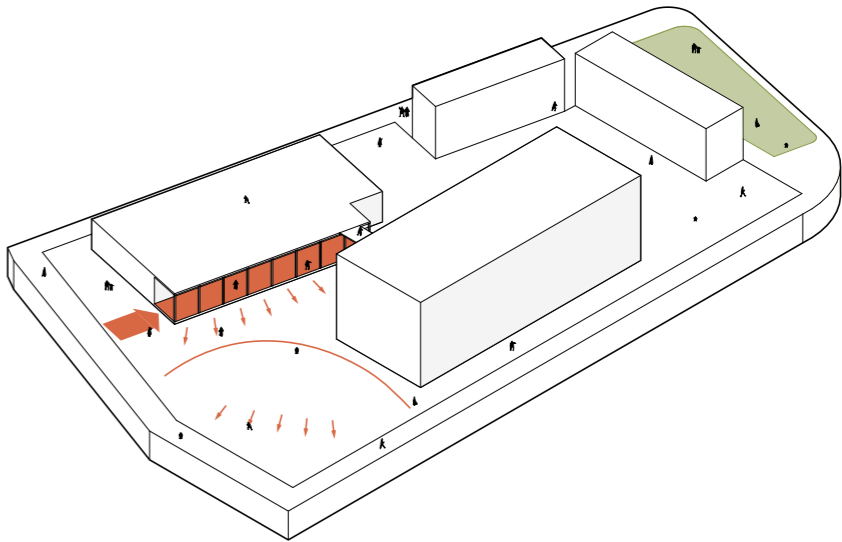
### CHOOSE SITE

Choose a suitable site in the community, which is close to the citizens and also close to the garbage station in the area.



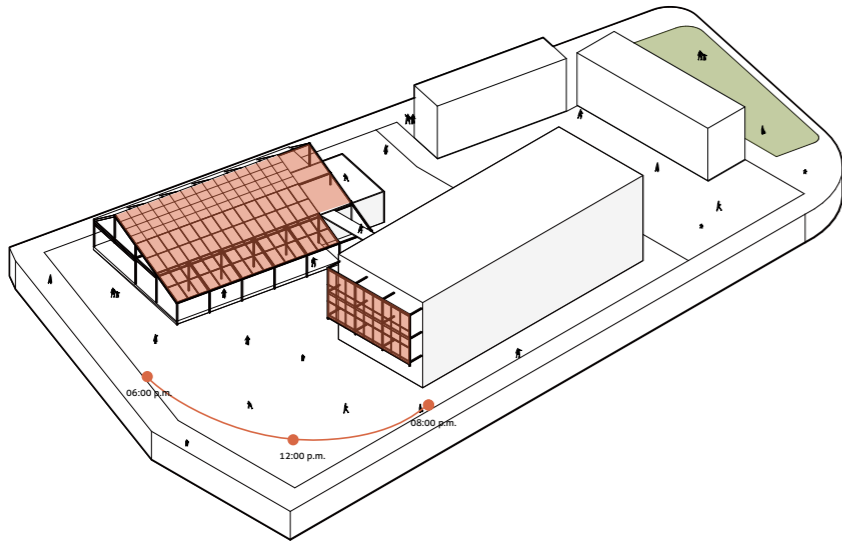
### SEPARATE MASS

Since the renovation of the post-war residence will end at any time, the material recycling center and the activity center are divided into two volumes.



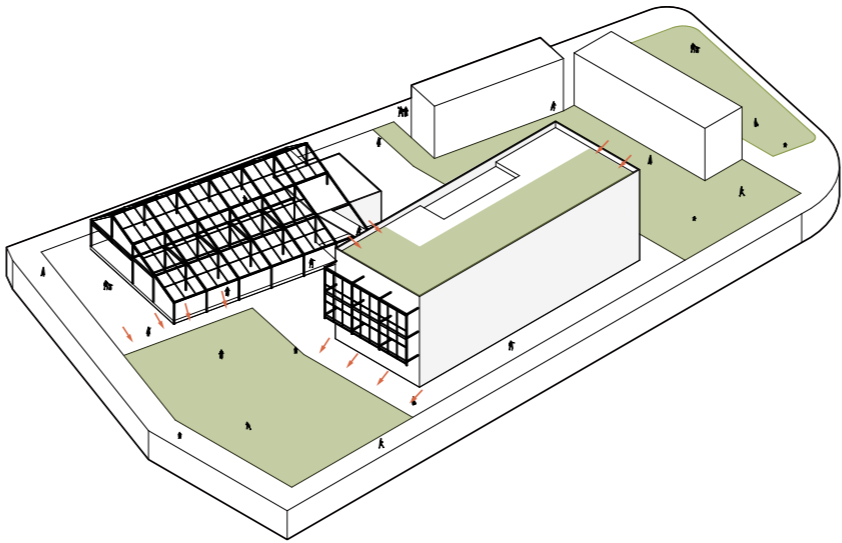
### OUTSIDE SPACE

What is offered to the public should not only be a good indoor space, but also a good outdoor space. So a block is set back to form an outdoor activity space.



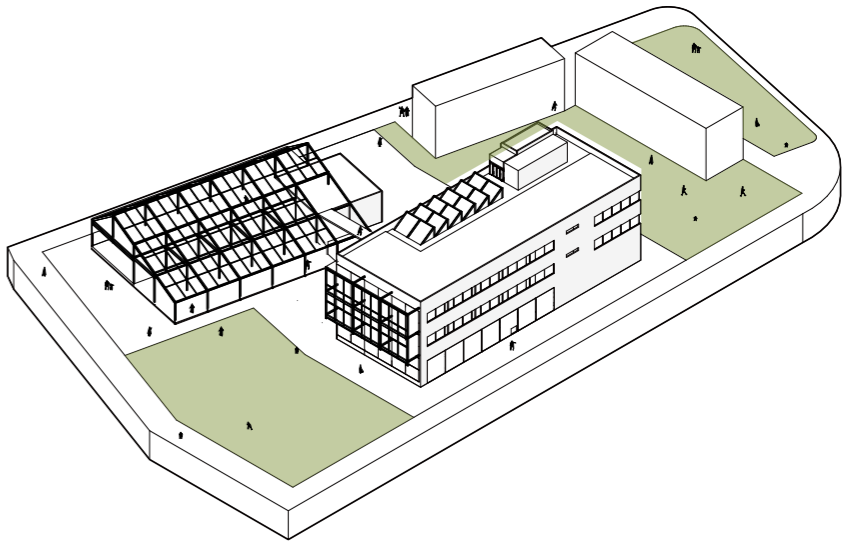
### SECONDARY FACADE

A second façade is placed on the south side of the building for shading. Materials collected from the post-war buildings will be placed here for shading.



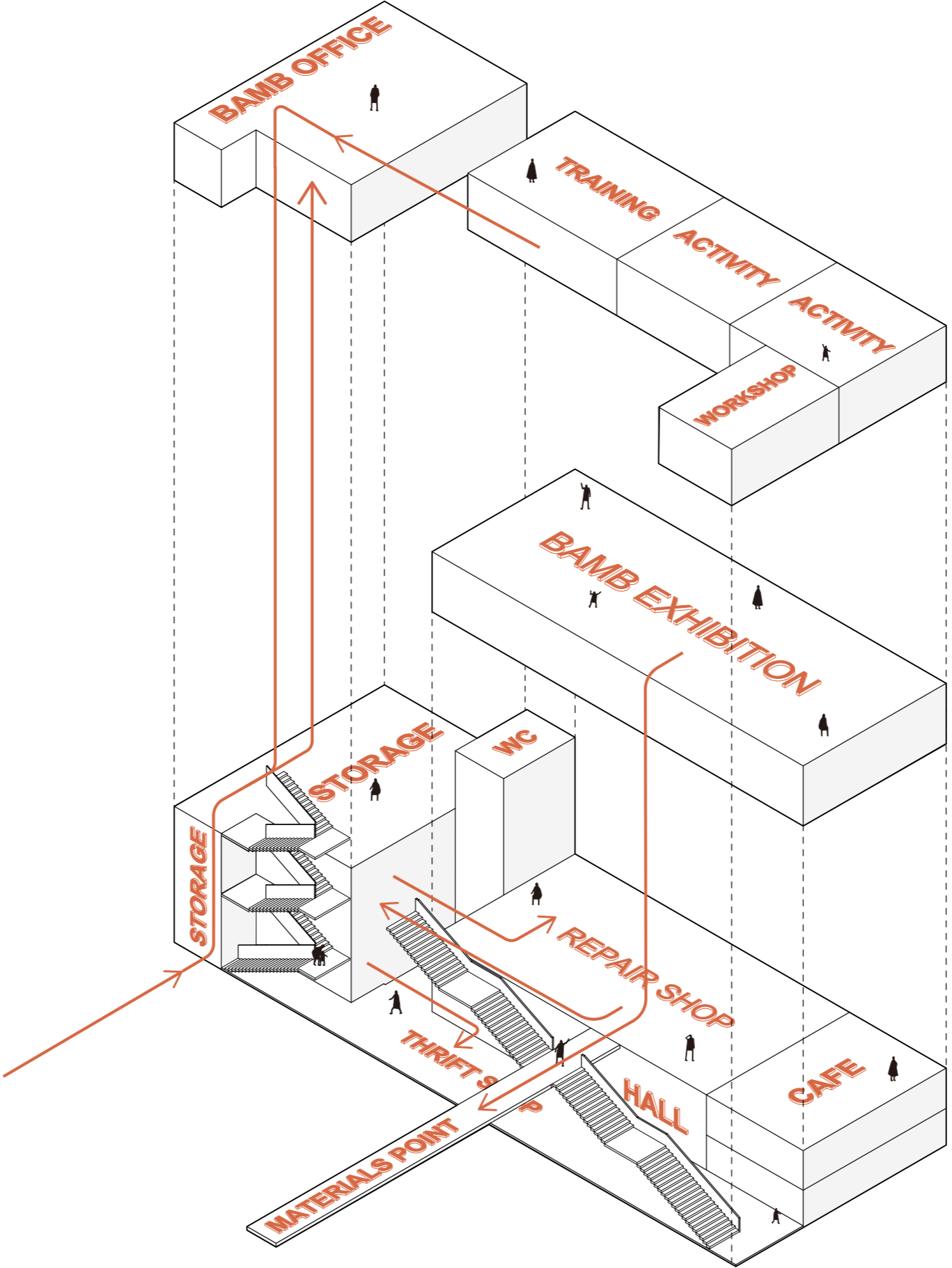
### MORE GREENLAND

Green space is placed in the front plaza of the building and on the roof to maximize the greenery of the site.

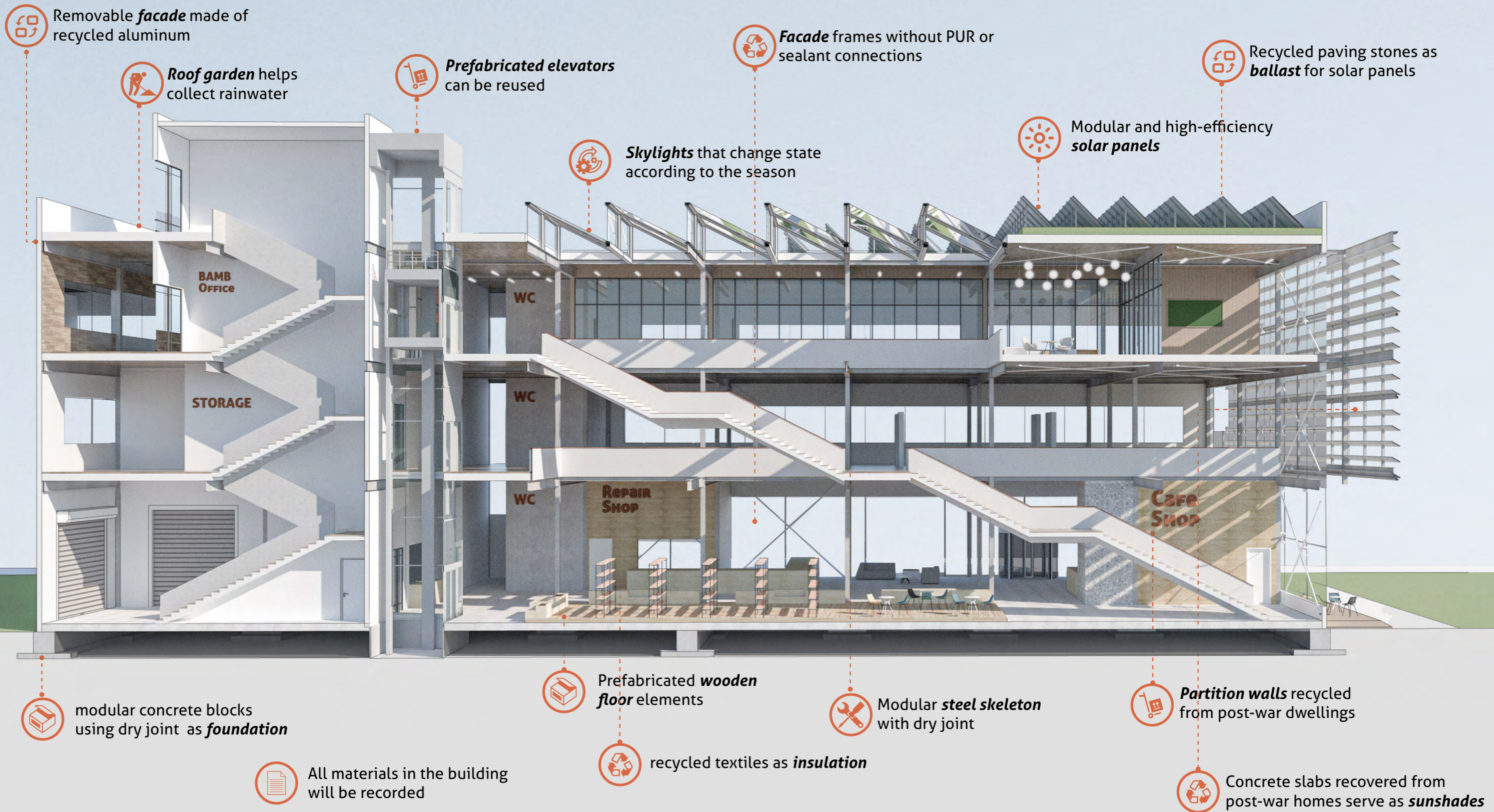


### FINISHED

# PROGRAM

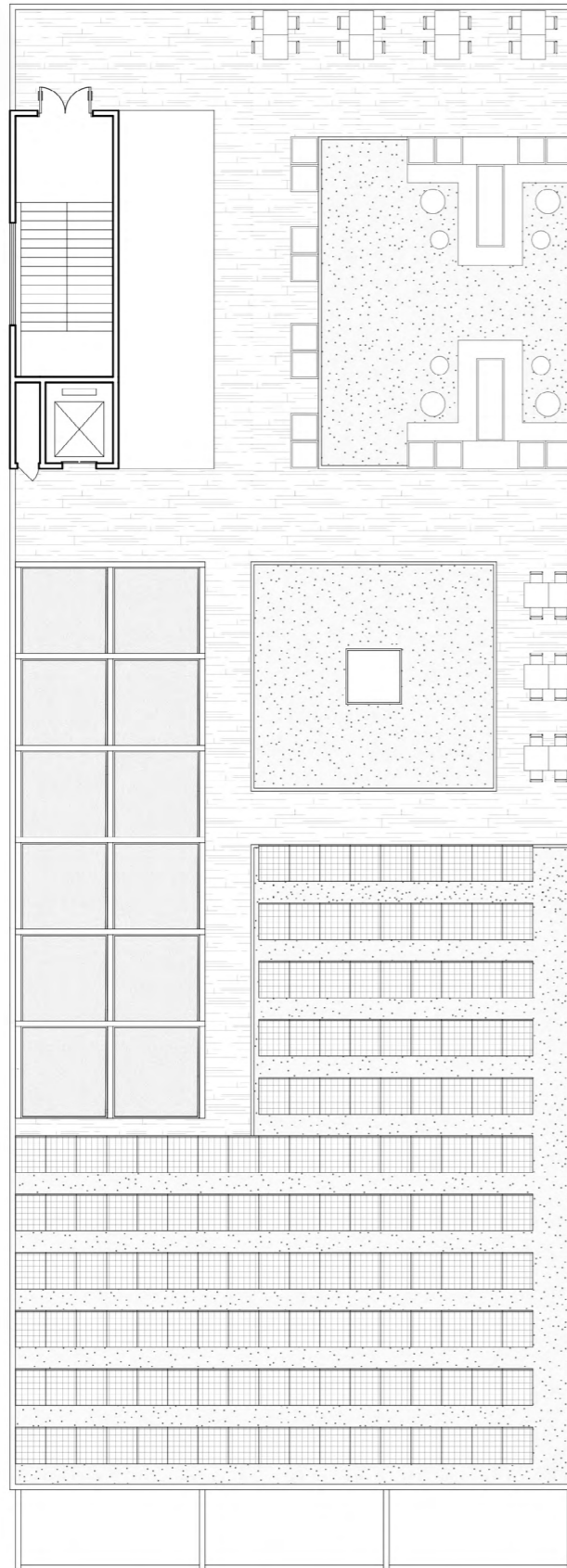


# CIRCULARITY STRATEGY



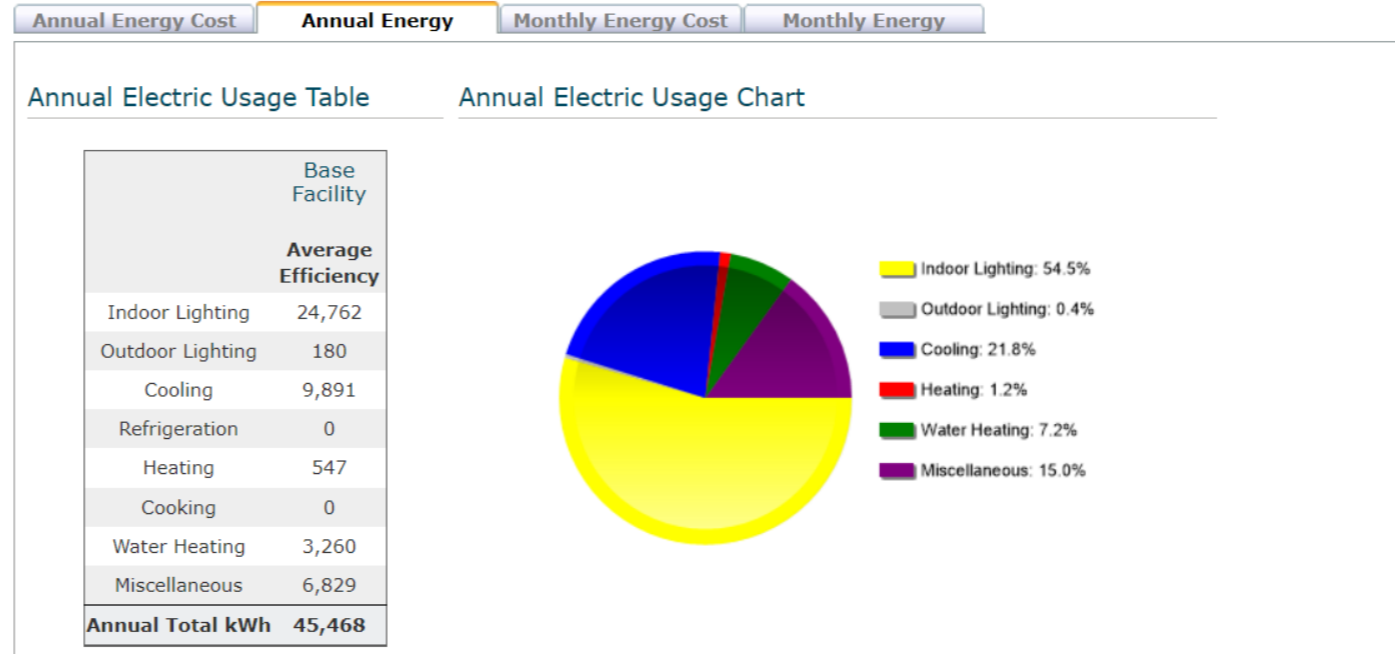
In order to achieve recycling and sustainability, the building has adopted a recycling strategy in all aspects

# ENERGY CAUCULATION



**ROOF GARDEN**

## Rough calculation of the annual energy requirement of the building



## Calculate the number of solar panels needed based on the annual energy requirement

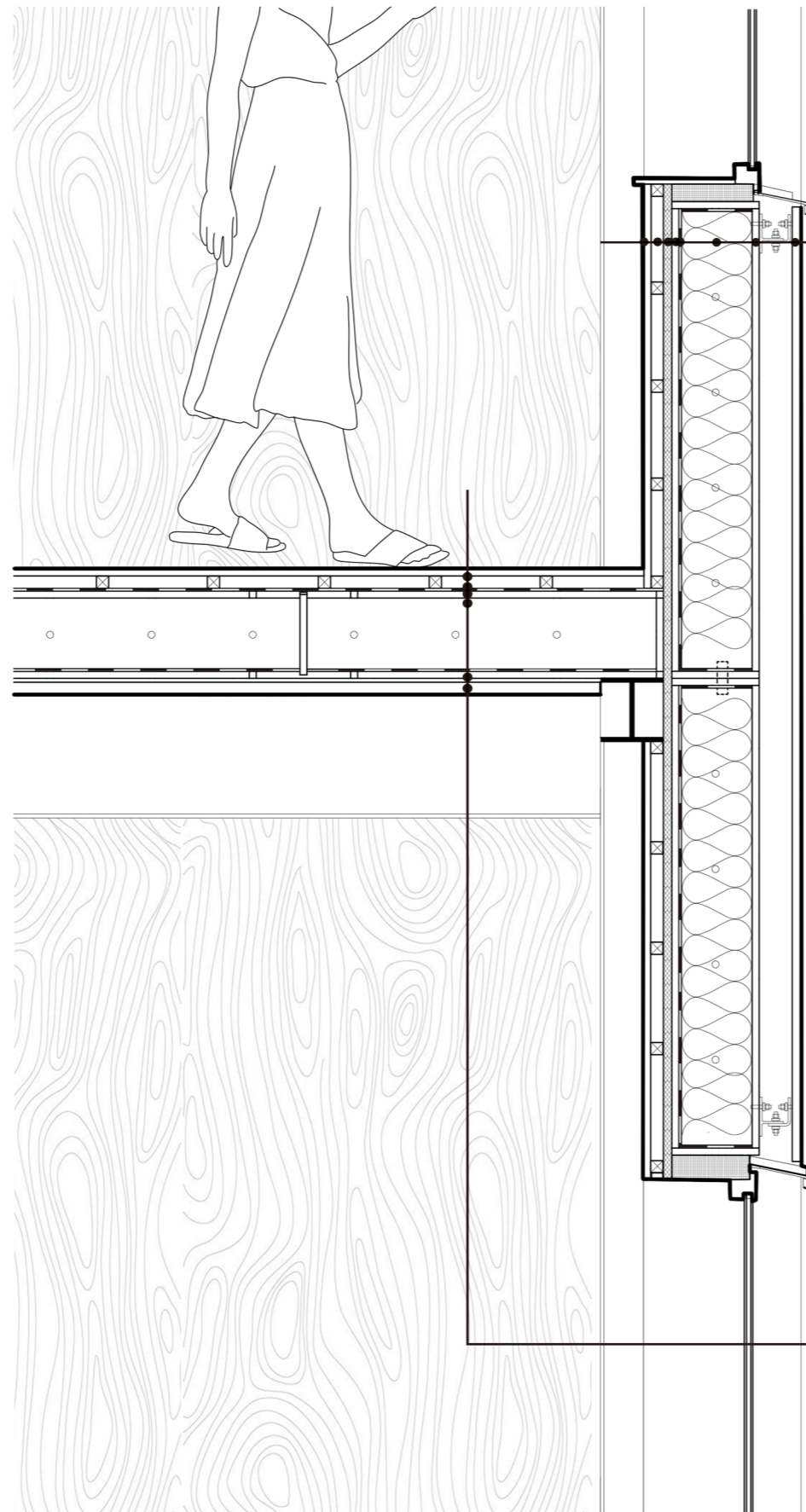
You need 152 modules to provide your electricity demand! ?

Your PV system contains **152 solar panels**. This number was estimated based on your yearly electricity demand of **45468 kWh**. It is calculated that **there fit 187 solar panels** at your location.



Installed capacity	45.5 kW <sub>p</sub>		
Yearly electricity use	Not specified		
Available area	340m <sup>2</sup>	17m x 20m	187 modules
Desired area	-	-	-
Required area (based on your electricity use)	271.52m <sup>2</sup>	16.86m x 16.1m	152 modules

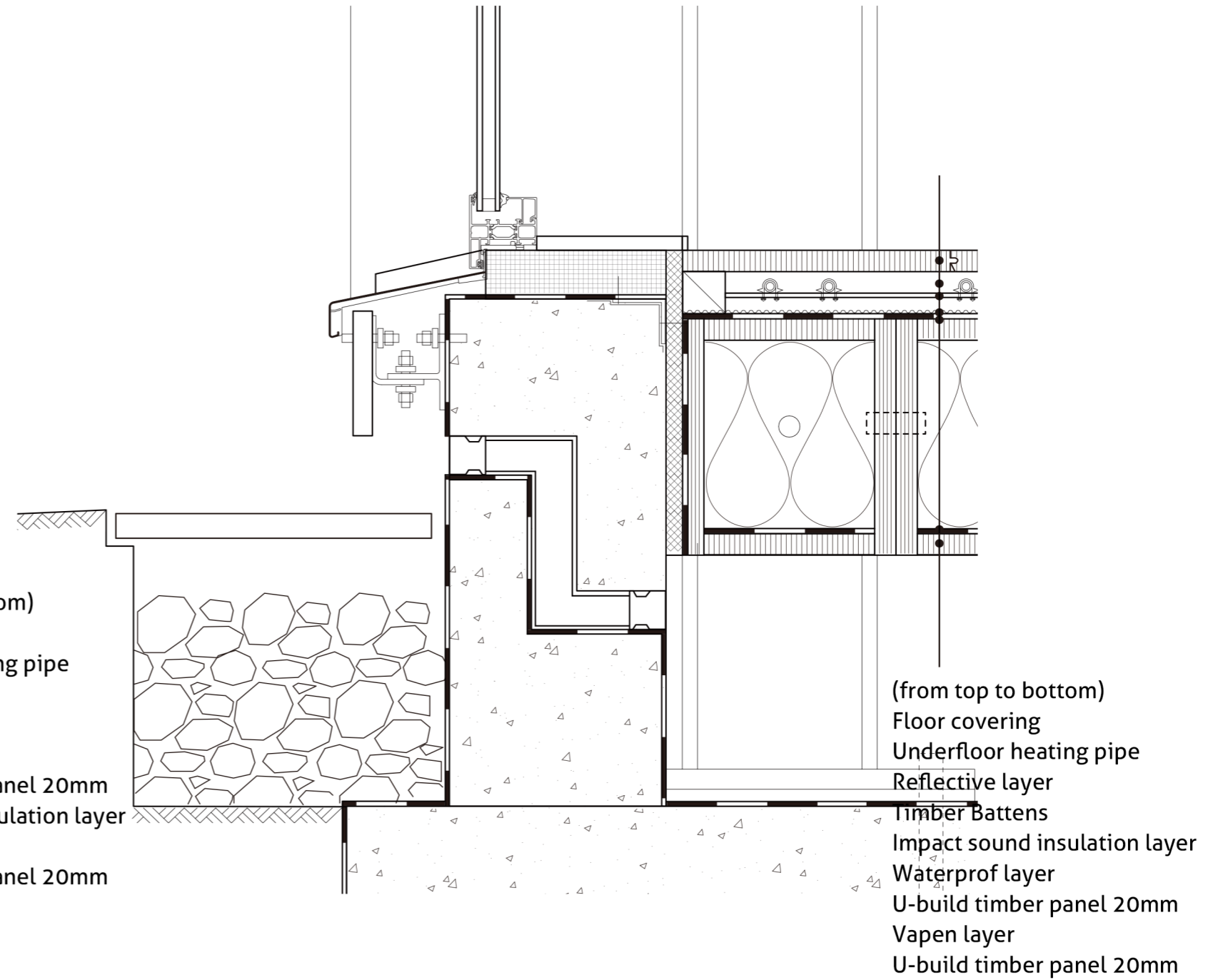
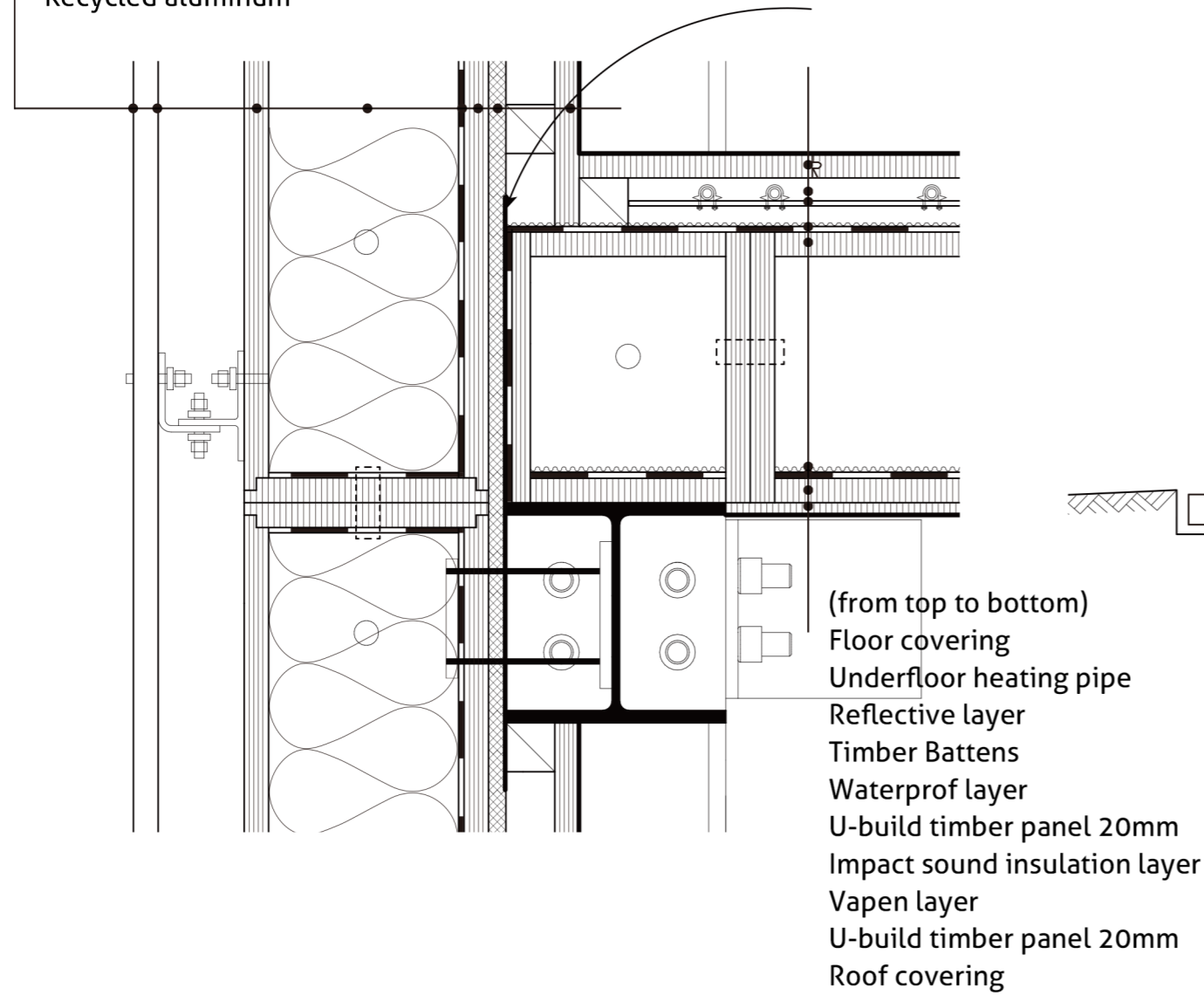
Required field area	272 m <sup>2</sup>
Required ground area	176 m <sup>2</sup>
Required active area	249 m <sup>2</sup>
GCR	0.65



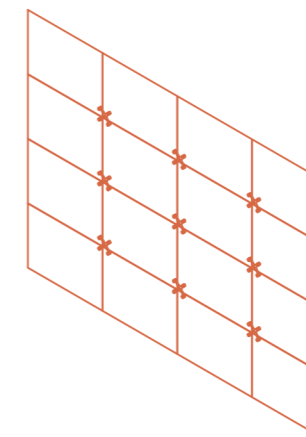
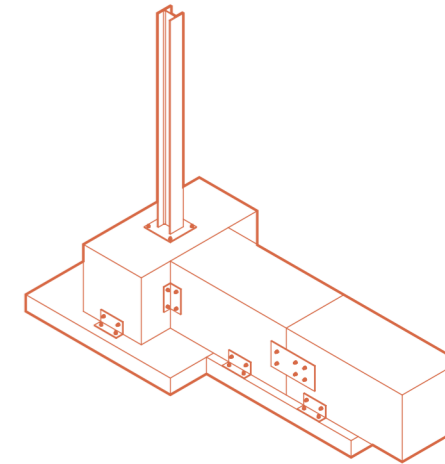
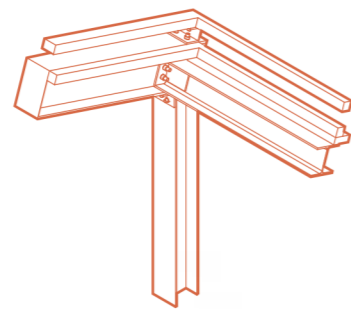
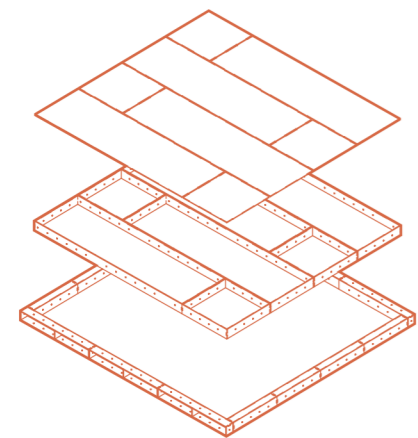
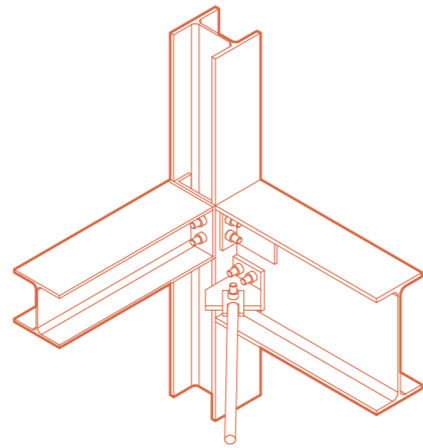
( From left to lright)  
Interiors covering  
Timber battens  
Fermacell panel  
U-build timber panel 20mm  
Waterprof layer  
Insulation  
U-build timber panel 20mm  
Recycled aluminum

(from top to bottom)  
Floor covering  
Underfloor heating pipe  
Timber Battens  
Waterprof layer  
U-build timber panel 20mm  
Vapen layer  
U-build timber panel 20mm

( From right to left)  
 Interiors covering  
 Timber battens  
 Fermacell panel  
 U-build timber panel 20mm  
 Waterprof layer  
 Insulation  
 U-build timber panel 20mm  
 Recycled aluminum

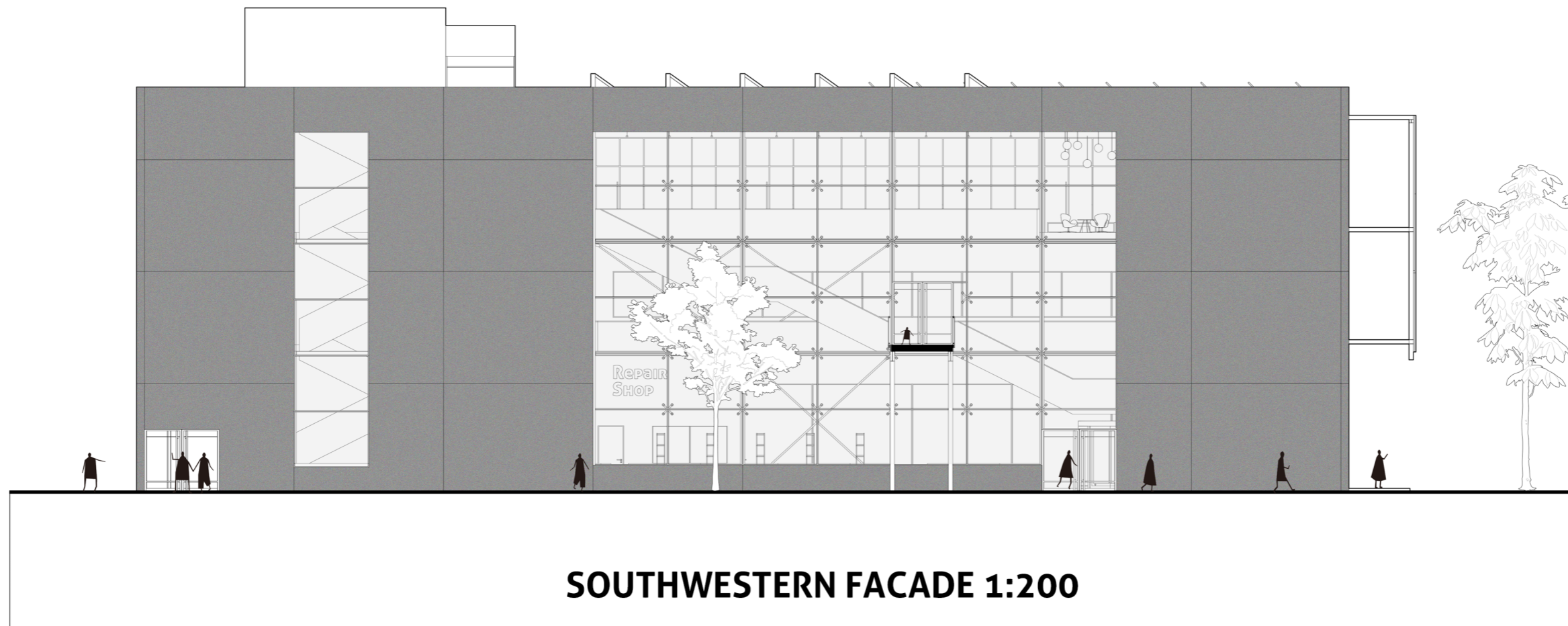
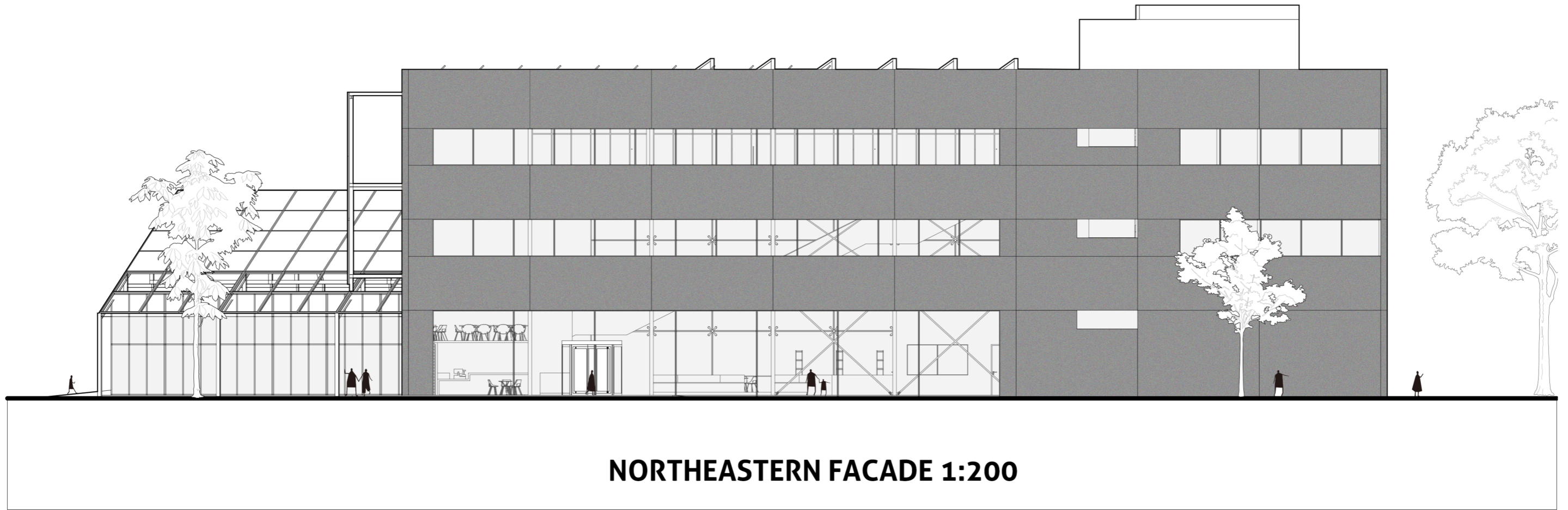


**Detail 1:5**



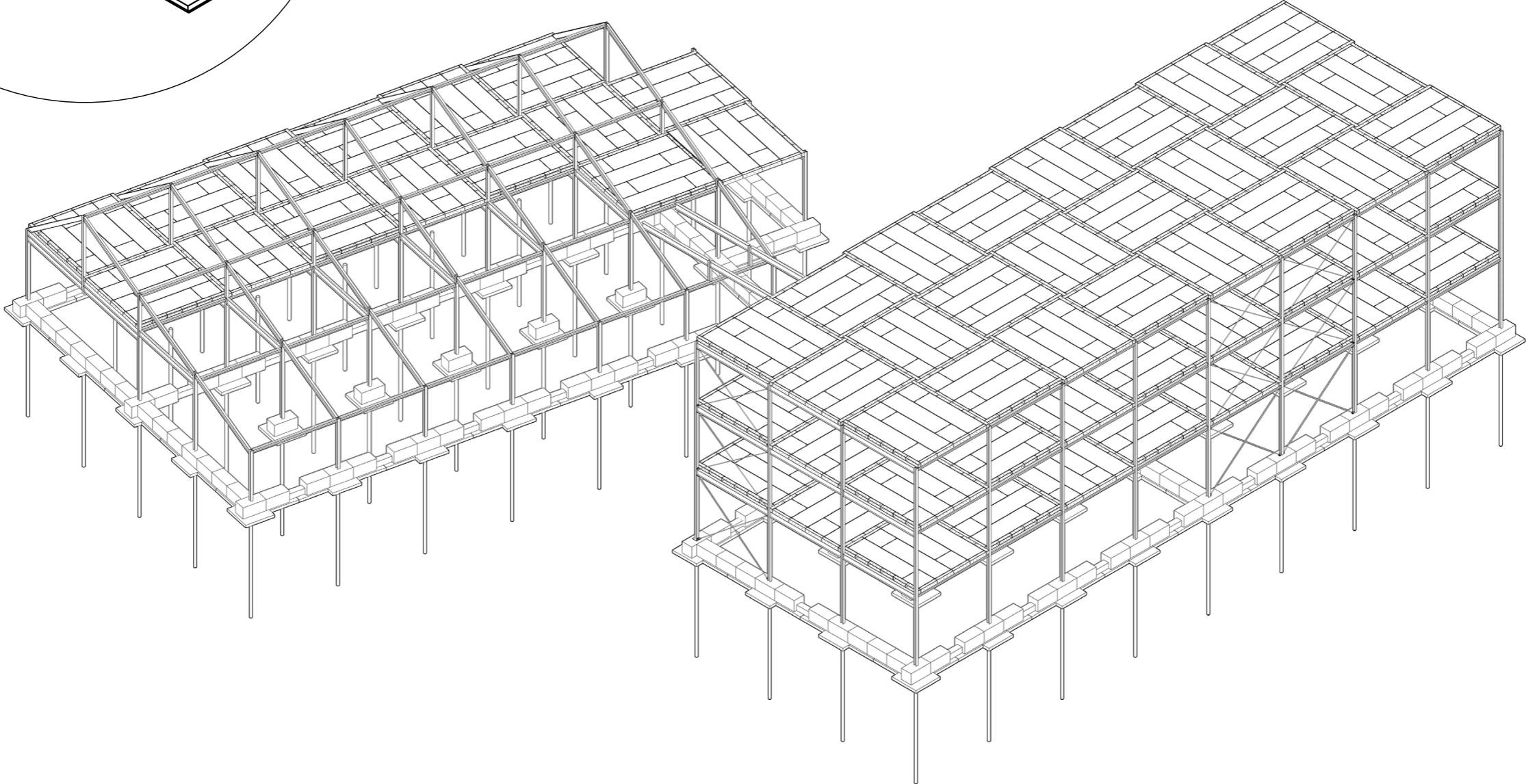
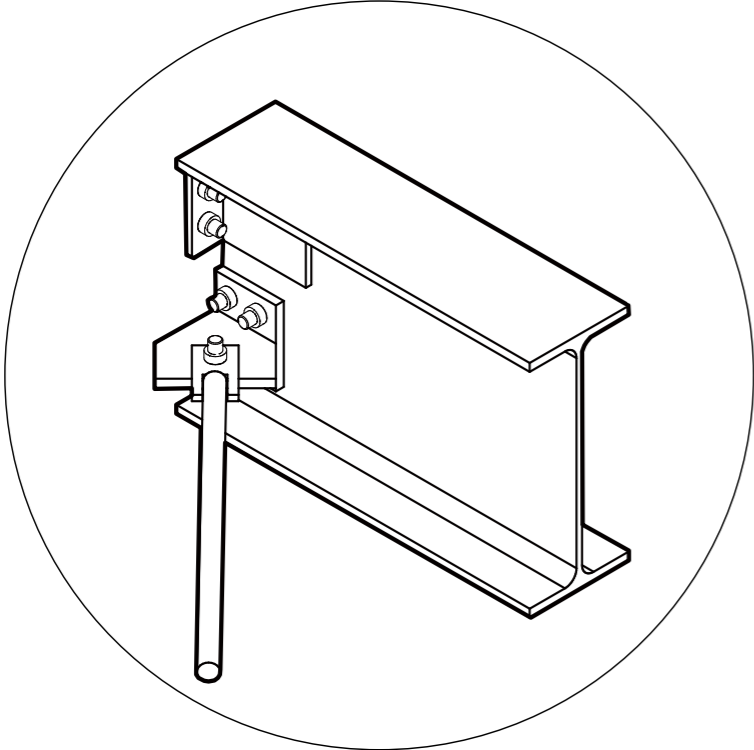
X36  HEB180	X96  HEA180	X81  IPE400	X144  IPE400	X192  Component A	X192  Component B			
X92  Foundation A	X36  Foundation B	X50  Foundation C	X59  Component C	X104  Component D	X36  Component E			
X360  Panel A	X  Panel B	X480  Panel C	X240  Panel D	X1200  Panel E	X540  Panel F	X240  Panel G	X240  Panel H	
X78  Component F	X28  IPE300	X38  HEB180	X33  HEA180	X16  FRAME	X55  Component G	X78  Window A	X54  Window B	X7  Window C

**Materials passport**





# STRUCTURE GENERATION



## PUT BRACING ON STEEL STRUCTURE

Add diagonal bracing reinforcement on three sides of the building.