

# Catalogue

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**Part 1 : Overall Structure Selection advantage**

**Part 2 : The main advantages of EPS foam concrete**

**Part 3 : Building structure details**

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# Part 1



**Overall Structure  
Selection advantage**

# Overall Structure Selection advantage

This quote is based on customer sketches. As the estimated price, only for customers to do budget reference. The final price should be based on the company a detailed plan.

## Overall Structure Selection

The light steel frame (**Q345 hot dip galvanized, galvanized 275g / m<sup>2</sup>**) + Light steel keel steel frame (**G550 galvalume**)

## Selection advantage:

- The main frame selection of double C combination of components, **high precision machining, millimeter error**. Material Q345 hot dip galvanized (and Galvalume AZ150g / m<sup>2</sup>) light weight, low amount of steel. **Connected by bolts** on site, frame beams, columns, connecting plates, bolts **all galvanized, good corrosion resistance**. Staircase using steel stairs, material H beam Q235, surface treatment for shot blasting rust (Sa2.5), then **paint epoxy zinc-rich primer**, coating thickness 100um.

# Overall Structure Selection advantage

- Light steel wall frame with G550, **aluminum-zinc, AZ150, high strength, stiffness, anti-corrosion** effect. Light steel keel production machines are imported from New Zealand , **continuous production, fast, high precision, small error.**
- assembly-type building body frame, rod factory prefabricated, **high installation speed** on-site, and save a lot of land, **quality controlled, greatly reduce costs, long service life.**  
Strong **economic advantages. Reduce materials, installation costs.**



# Part 2



**The main advantages  
of EPS foam concrete**

# Main advantages of EPS foam concrete

The main advantages of EPS foam concrete:

◆ **1, thermal insulation:**

A large number of closed EPS foam polystyrene foam bubbles and EPS particles of very low thermal conductivity, making EPS foam concrete has excellent thermal insulation properties, to meet the various regions, for various purposes, thermal insulation requirements, is a kind of excellent New insulation materials.

◆ **2, noise damping:**

Soundproofing capacity is **5-8 times of normal concrete**, with a certain degree of toughness, flexibility, can greatly enhance the roof, floor noise insulation function.

◆ **3, fire durability:**

The main material of EPS foam concrete is cement-based material, EPS particles are wrapped in cement, the overall structure does not burn, no aging, no deformation, and the same life with the building, can effectively prevent the fire.

# Main advantages of EPS foam concrete

## ◆ 4, light high strength:

Polystyrene foam concrete dry density is only ordinary concrete **1 / 8-1 / 10**, compressive strength of 0.5Mpa-1.5Mpa, bearing capacity.

## ◆ 5, a good degree of integration:

EPS particle concrete generally adopts on-site pouring construction and closely integrates with the grass-roots seamless gap. Its **low shrinkage, high compressive strength and adhesive strength** can keep all kinds of filling structures and the main body of the building to achieve good integrity . It **fundamentally solves the quality problems of surface hollowing, collapse and cracking caused** by the separation of traditional thermal insulation materials from the grass-roots, poor compaction, poor adhesiveness and other factors.

**EPS particle concrete performance index:(see bellow test report for the EPS foam concrete)**

# Main advantages of EPS foam concrete

**EPS particle concrete performance index:  
(see bellow test report for the EPS foam concrete)**

S/N	Item	index
1	Density, KG / M3	300
2	Compressive strength, Mpa	0.5
3	Thermal conductivity, W / (m.k)	0.055
4	Softening coefficient, /% W	15.2
5	Frost resistance (-30 ° C to 20 ° C, 30 cycles),%	Strength loss ≤ 17
		Quality loss ≤ 2
6	Drying shrinkage / [mm / m]	≤0.3

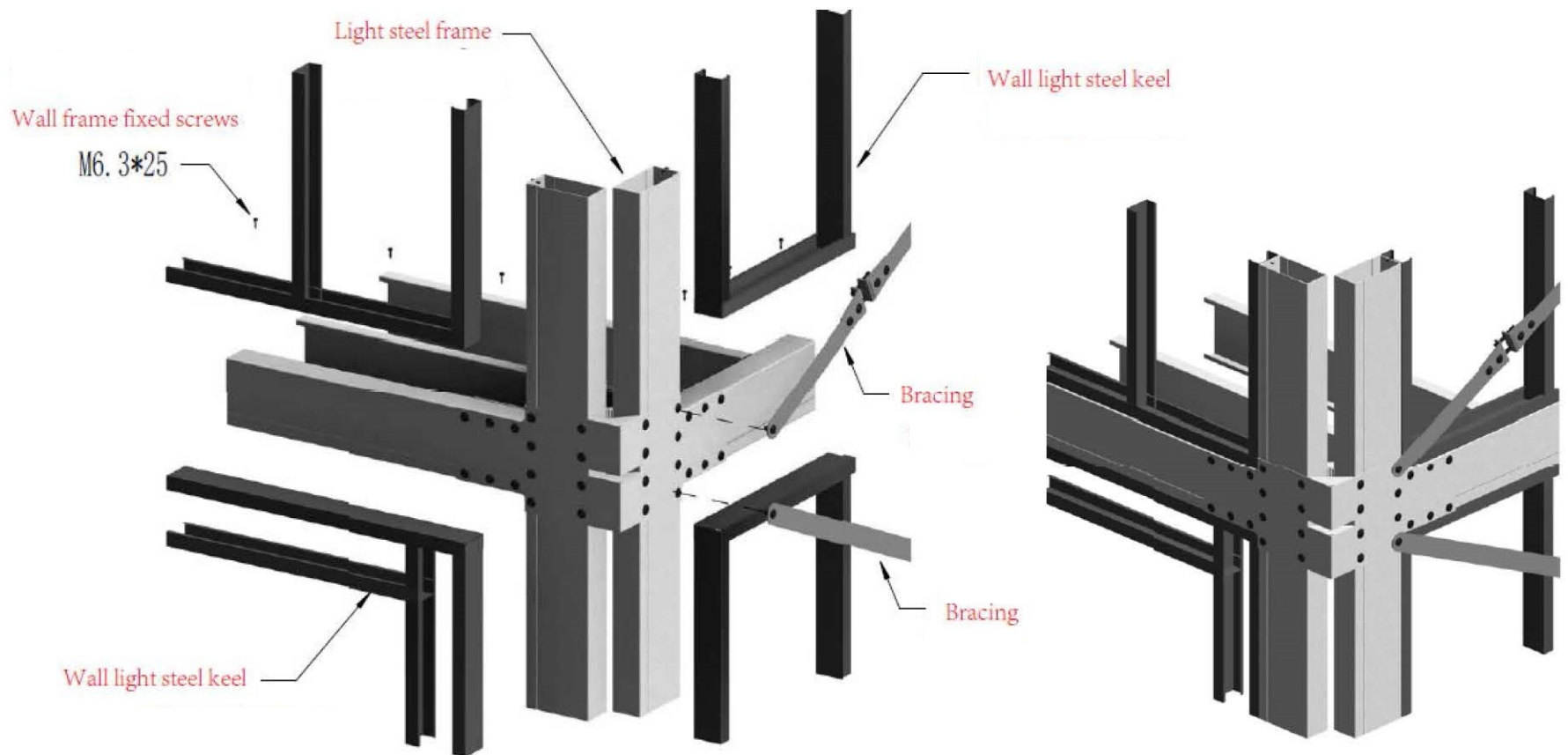
# Part 3



**Building structure  
details**

# Building structure details

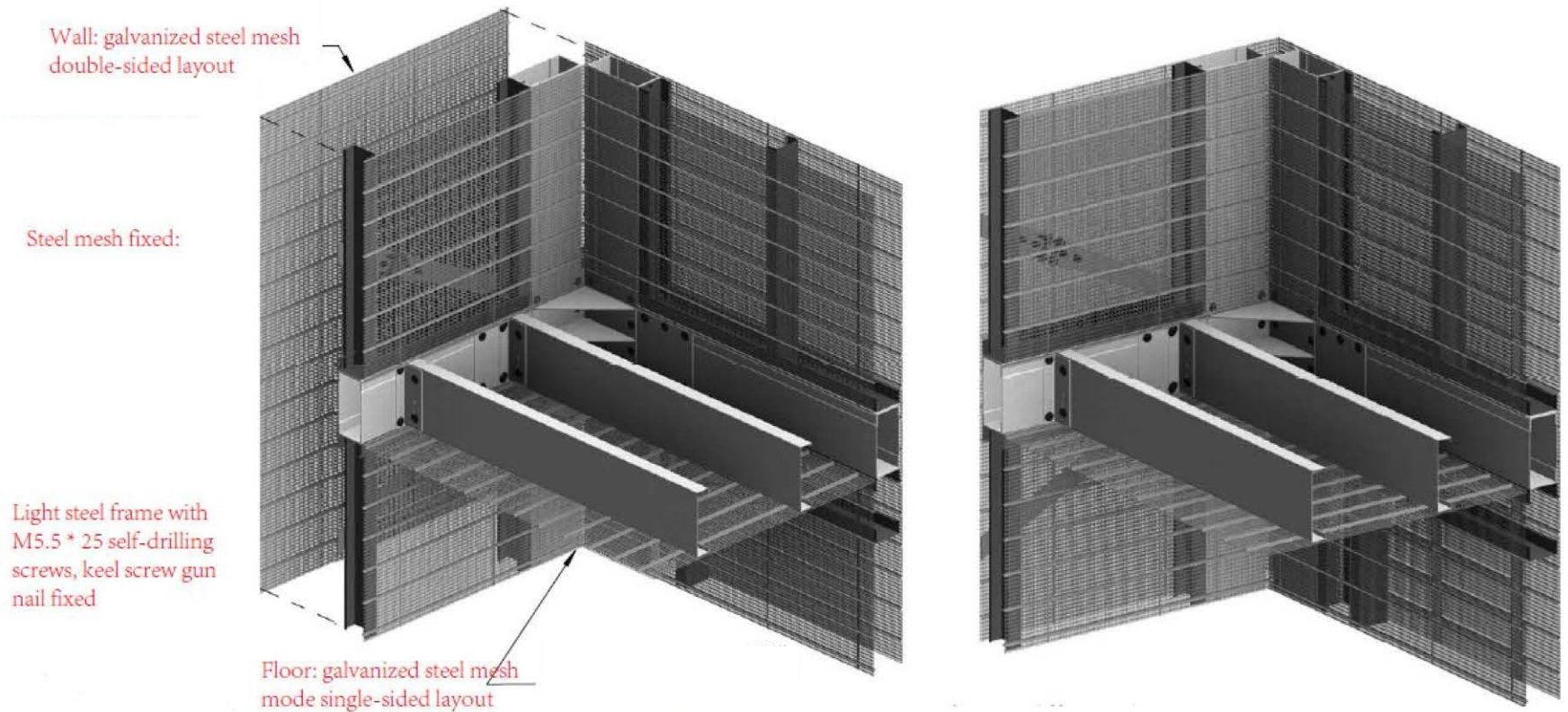
Over structure Frame and wall structure exploded view:





# Building structure details

## Galvanized steel mesh exploded view:



# Building structure details

## EPS particles foam concrete view:

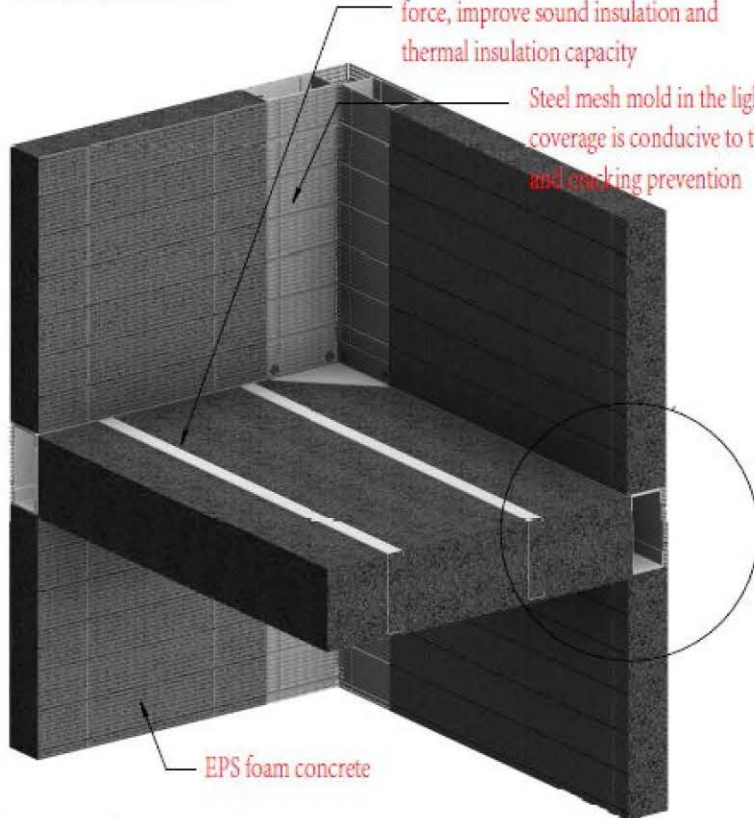
Soundproofing: > 44dB at 120mm  
Insulation: 120mm = 0.9w / (m2.k)  
burning performance: A level  
Fire time: 120mm ≥ 3h

Floor beams embedded in  
lightweight concrete to enhance the  
force, improve sound insulation and  
thermal insulation capacity

galvanized steel mesh

Steel mesh mold in the light steel/frame, full  
coverage is conducive to the mortar adhesion  
and cracking prevention

EPS foam concrete

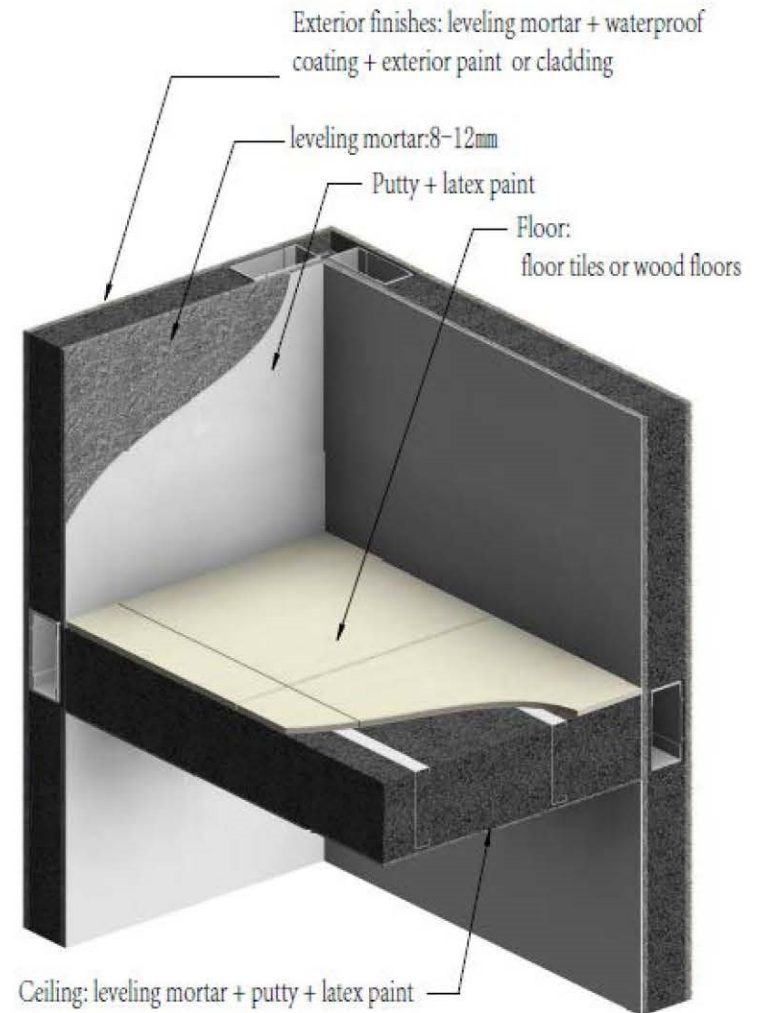


Exterior finishes: leveling mortar + waterproof  
coating + exterior paint or cladding

leveling mortar: 8-12mm

Putty + latex paint

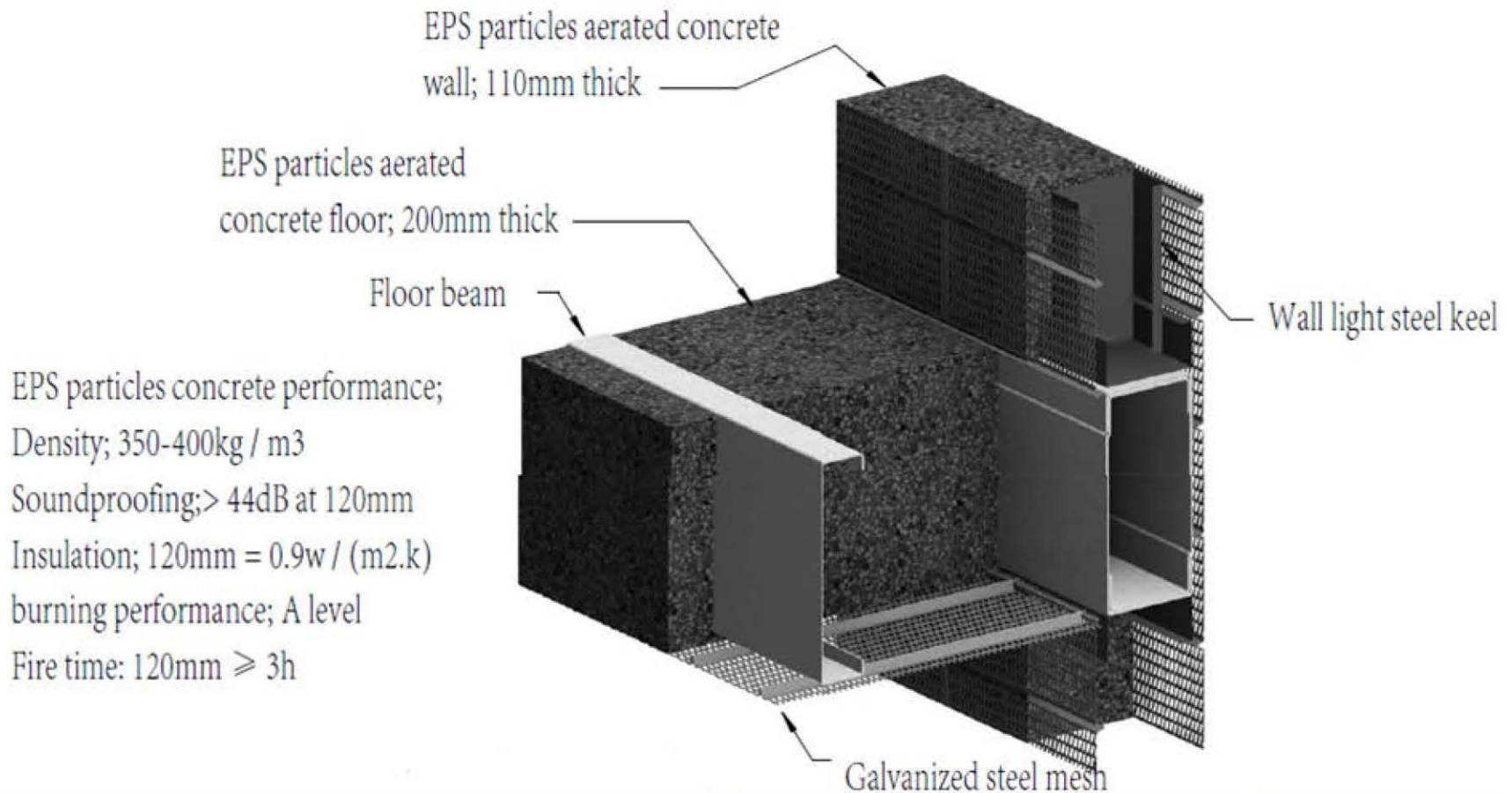
Floor:  
floor tiles or wood floors



Ceiling: leveling mortar + putty + latex paint

# Building structure details

## EPS particles foam concrete view:



# Part 4

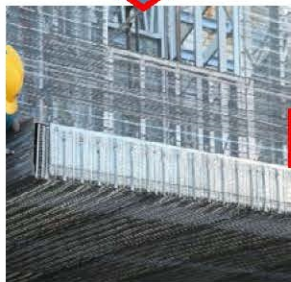


**Domestic project  
shows**



# Stilted building

**Project site :** Shaoxing China  
**Project time :** 2017.12  
**Project type :** single floor  
**Product type :** light steel frame with stainless steel  
**Building area :** 60sqm

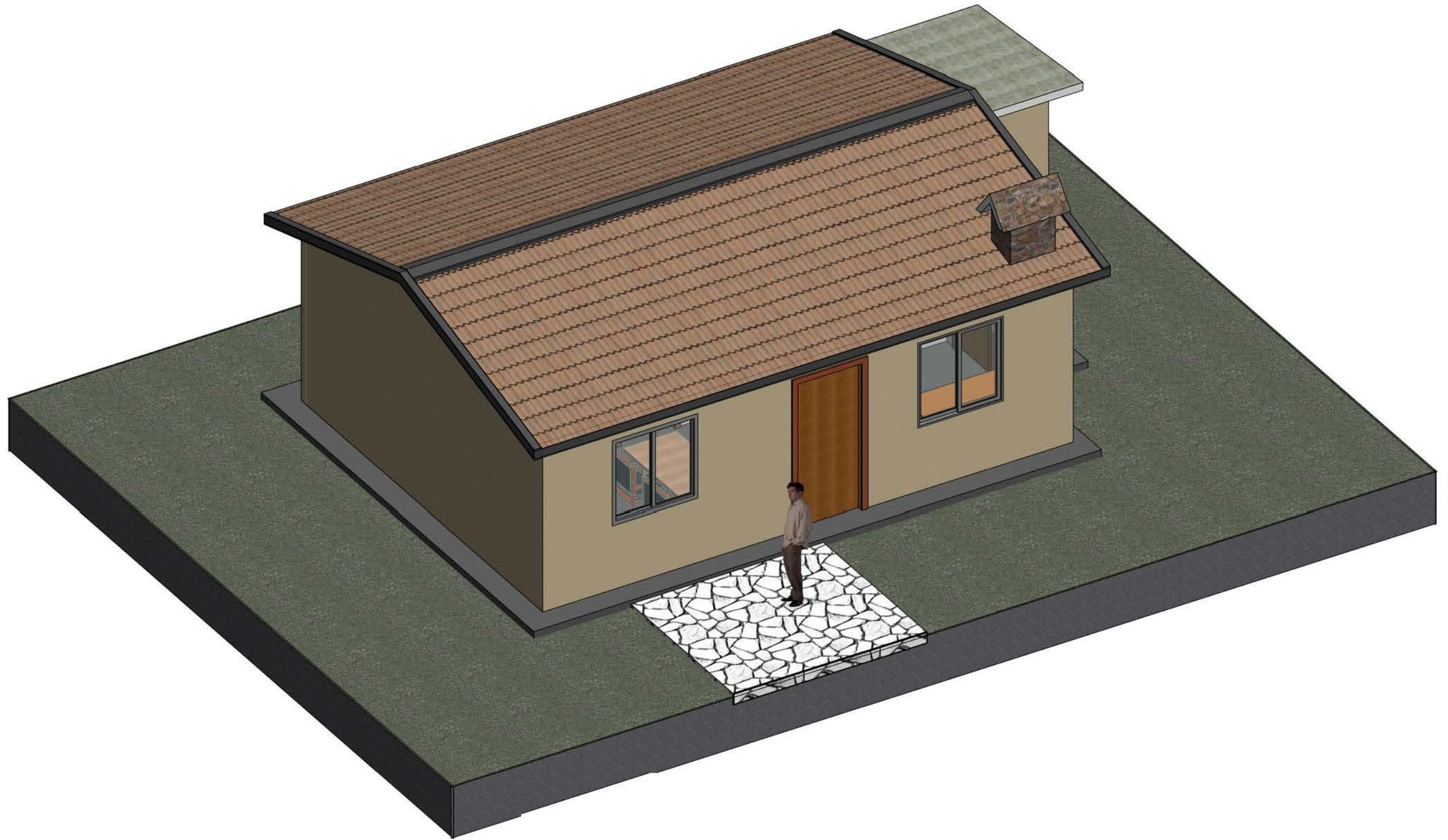


# South African Social housing

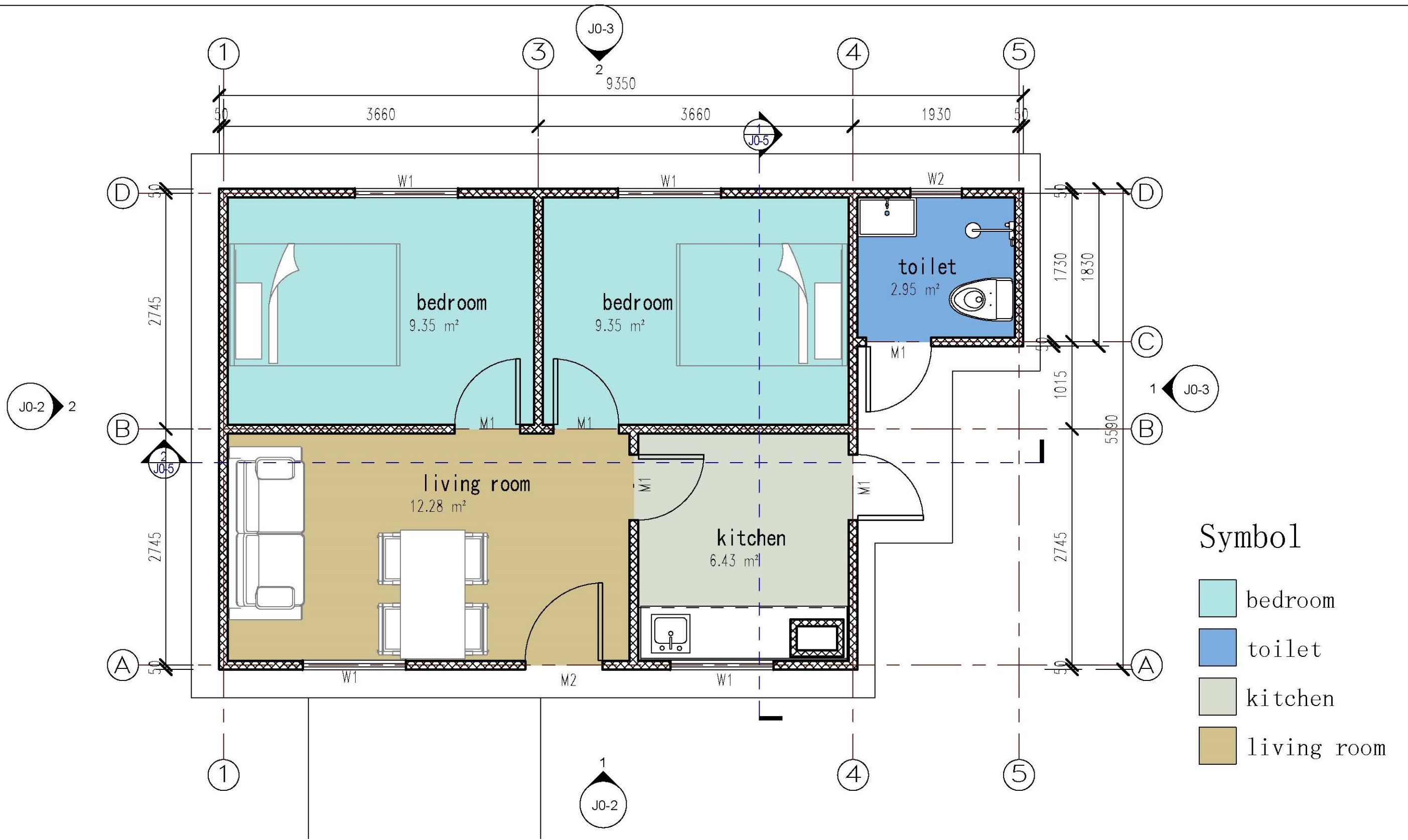
**Project site** : South African  
**Project time** : 2017.11  
**Project type** : single floor  
**Product type** : Sample house  
**Total Qty**: 5000 units  
**Building area** : 45sqm







3D View



Layout Plan

Symbol

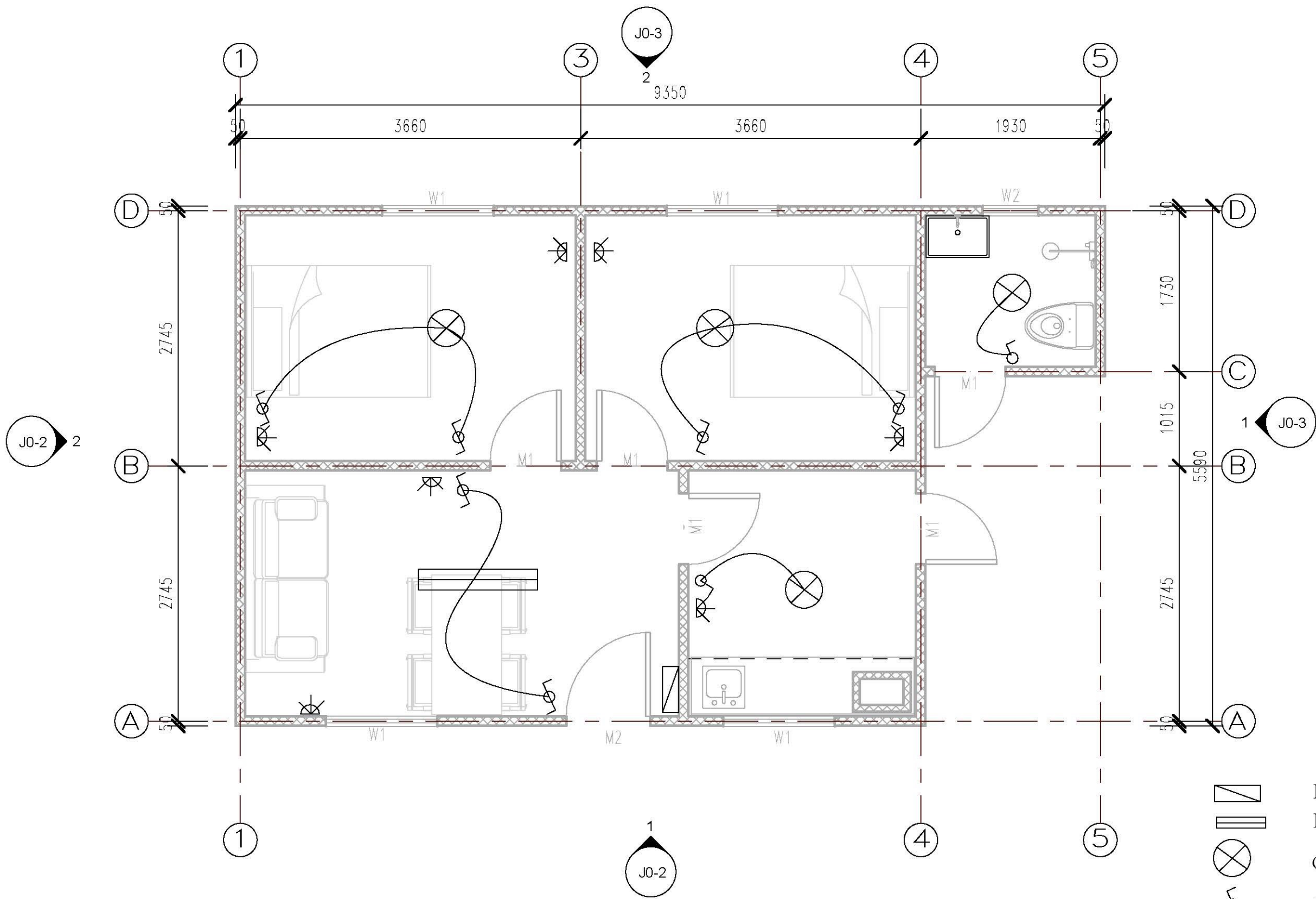
- bedroom
- toilet
- kitchen
- living room

Area sheet		
Name	total	Area
	1	45.16

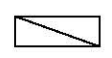




Door sheet					
No.	Name	Width	Height	Qty	Area
M1	Steel door	760	2080	5	1.5808
M2	Steel door	900	2080	1	1.872
Total				6	

Window sheet					
No.	Name	Width	Height	Qty	Area
W1	Aluminum alloy window	1200	1200	4	1.44
W2	Aluminum alloy window	600	1200	1	0.72
Total				5	





**Electrical layout**

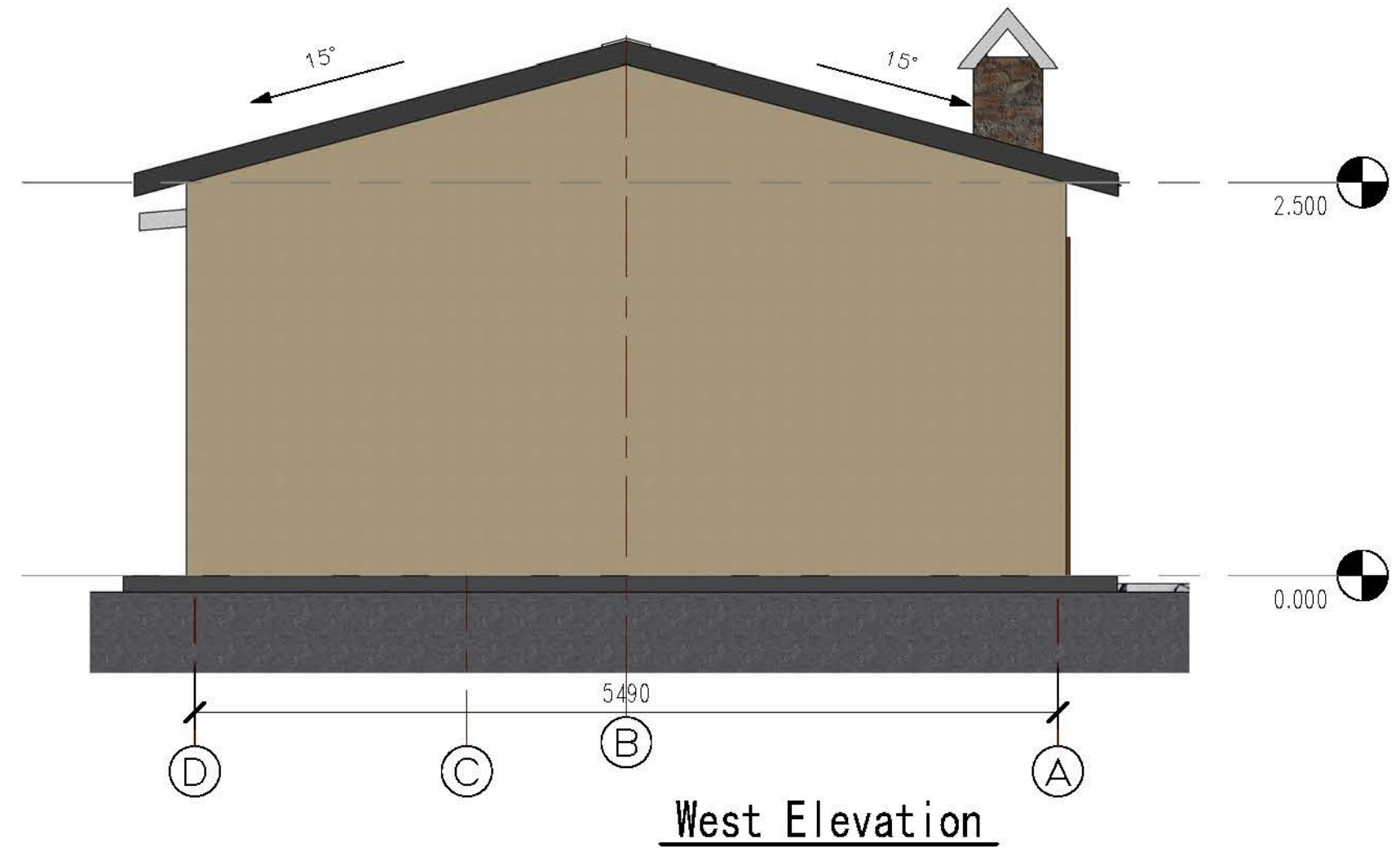
-  Distribution box
-  Double fluorescent lamp
-  Ceiling lamp
-  1 single control switch
-  1 double control switch







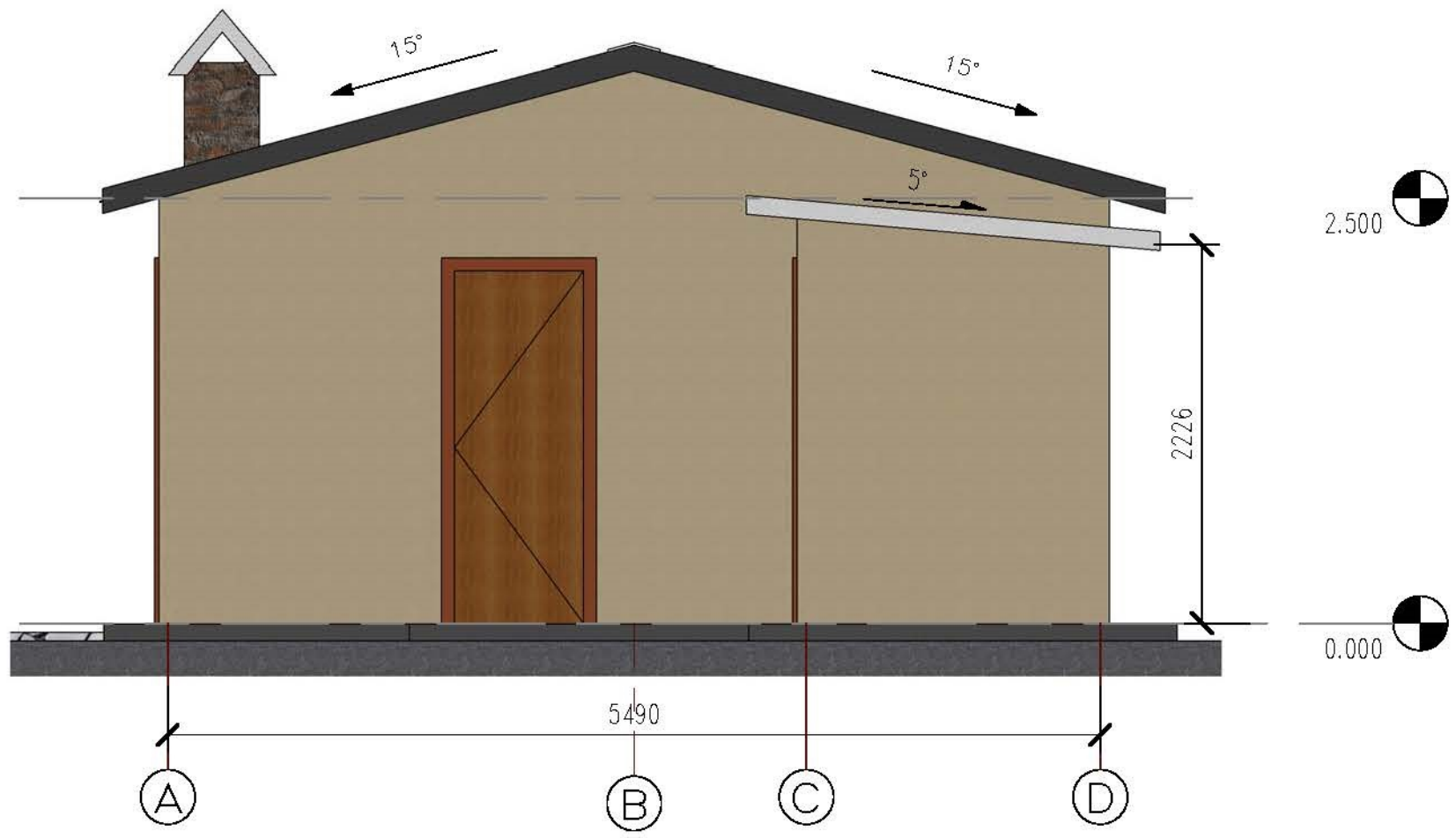
South Elevation



West Elevation

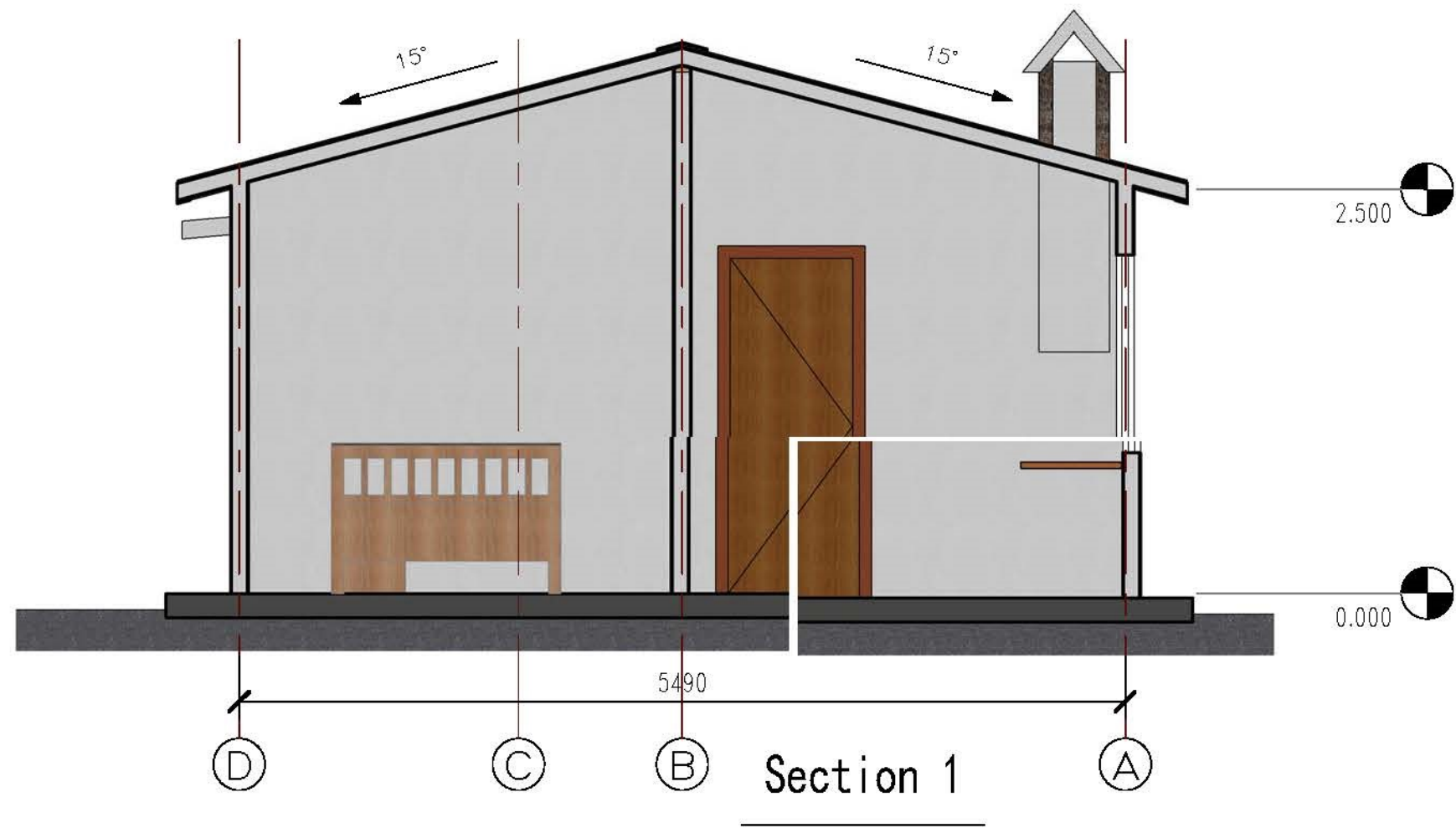


North Elevation



East Elevation







Profile Chart





Profile Chart 2

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