

Shelter 1.
ANNEX C_column 1
ANNEX D_page 1

Shelter 2.
ANNEX C_column 2
ANNEX D_page 2

Shelter 3.
ANNEX C_column 3
ANNEX D_page 3

Shelter 4.
ANNEX C_column 4
ANNEX D_page 4

Shelter 5.
ANNEX C_column 5
ANNEX D_page 5

Shelter 6.
ANNEX C_column 6
ANNEX D_page 6

Shelter 7.
ANNEX C_column 7
ANNEX D_page 7



Protecting people forced to flee

Sustainable
Shelter
Solutions

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Stand 1
ANNEX C_row H
column 1

Stand 2
ANNEX C_row H
column 2

Stand 3
ANNEX C_row H
column 3

Stand 4.
ANNEX C_row H
column 4

Shelter 5.
ANNEX C_row H
column 5

Shelter 6.
ANNEX C_row H
column 6

Shelter 7.
ANNEX C_row H
column 7

CRI Stand
ANNEX C_row 8

ANNEX D

7 Shelter mood boards / material and technical specs



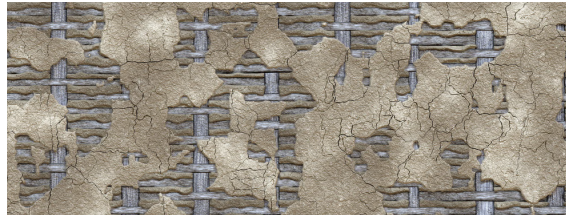
wooden door + textile
hole window + textile



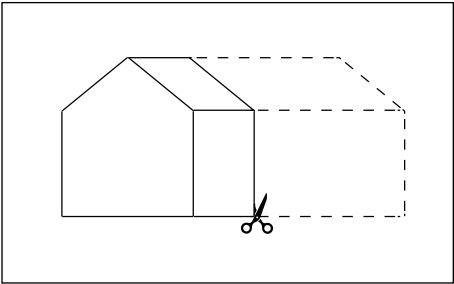
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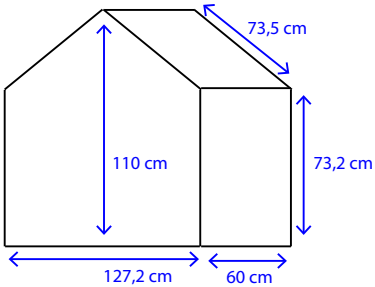
Roof:
corrugated iron sheet
+
straw
+
Partially covered
with tarpaulin



SECTION



DIMENSIONS



MATERIALS

STRUCTURE:
gable timber frame

WALLS:
wattle & daub with straw reinforced
earth

ROOF:
UNHCR plastic tarpaulins

Climate: **Tropical savannah**



Emergency Shelter is here composed by a rectangular wooden structure. The floor is covered by UNHCR tarpaulin; and walls composed of wattle & daub with straw reinforced earth cladding. The gable roof of the unit is covered by corrugated iron sheets and thatch/straw. Cladding is partially covered with UNHCR tarpaulin.



iron sheet door

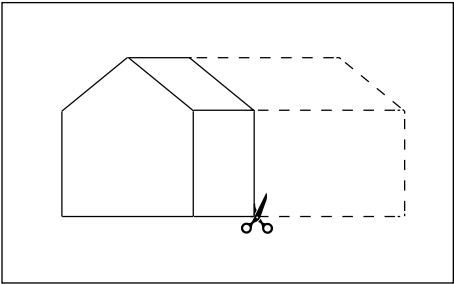
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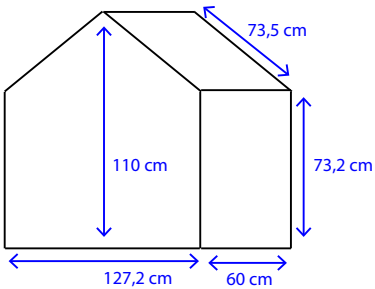
Roof:
corrugated iron
sheet
+
palm thatch



SECTION



DIMENSIONS



MATERIALS

- STRUCTURE:**
load bearing walls-non rein-
forced masonry
- WALLS:**
mud plastered sun dried mud-
brick
- ROOF:**
UNHCR plastic tarpaulins

Climate: **Tropical savannah**



Load bearing walls-non reinforced masonry. Wall are made of mud plastered sun-dried mud-brick. The gable roof of the unit is covered by corrugated iron sheets and thatch/palm leaves.

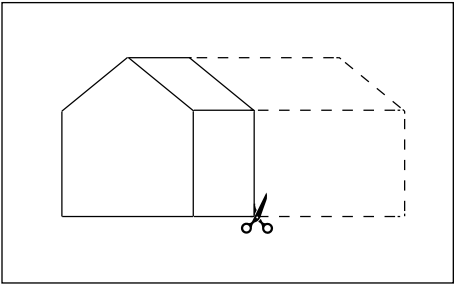


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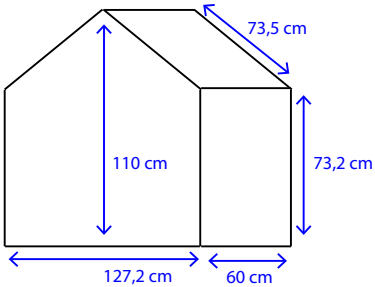


Roof:
corrugated iron sheet
+
palm leaves

SECTION



DIMENSIONS



MATERIALS

- STRUCTURE:**
wood
- WALLS:**
UNHCR plastic tarpaulin
- ROOF:**
UNHCR plastic tarpaulins

Climate: **ANY**

This Emergency Shelter is composed by a rectangular wooden structure, using local available materials. Structure can be created out of any material (wood poles/metal structure) but UNHCR tarpaulin, either five 4x5m sheets or equivalent length of roll*, will cover the floor, walls and roof.

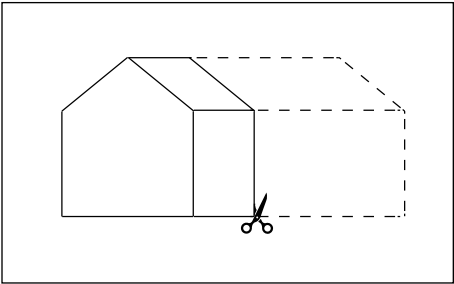


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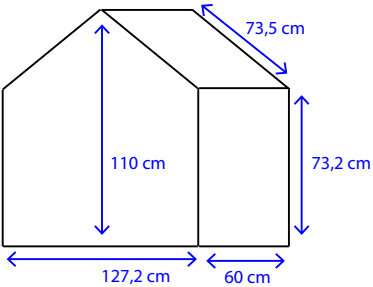


door and window as the above references

SECTION



DIMENSIONS



MATERIALS

STRUCTURE:
wood/bamboo

WALLS:
bush/wood sticks

ROOF:
straw

Climate: **Desert / Sub tropical**

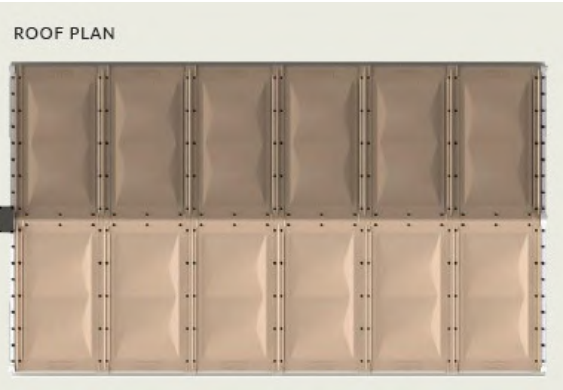


The fourth model of the Emergency Shelter consists here of a rectangular wooden structure. The gable roof of the unit is covered by corrugated iron and a metallic ridge cap. The walls of this unit are based on the adobe plastering technology with bush sticks as plaster support. There is the option to mud plaster both interior and external walls, or only the external.



wooden door + textile
hole window + textile

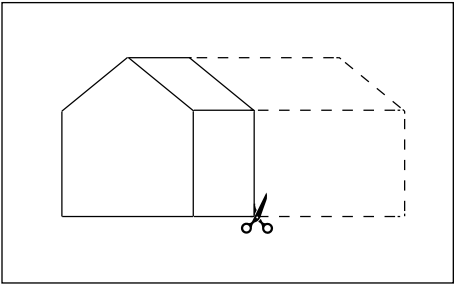
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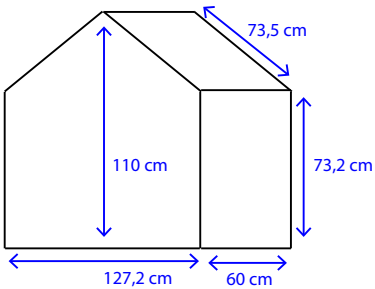
Roof:
corrugated iron sheet
+
straw
+
Partially covered
with tarpaulin



SECTION



DIMENSIONS



MATERIALS

STRUCTURE:
steel frame

WALLS:
light-weight polymer panel

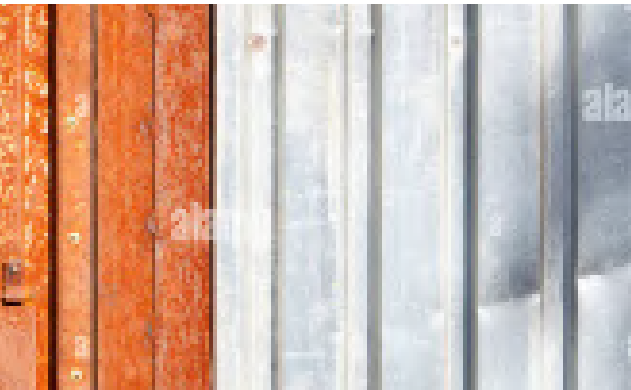
sROOF:
light-weight polymer panels

Climate: **Any**

The Refugee Housing Unit (RHU) is composed of several basic elements, including a lightweight steel frame, roof and wall panels, door and windows, floor covering, solar energy system (lamp and telephone charger) and an innovative anchoring system.

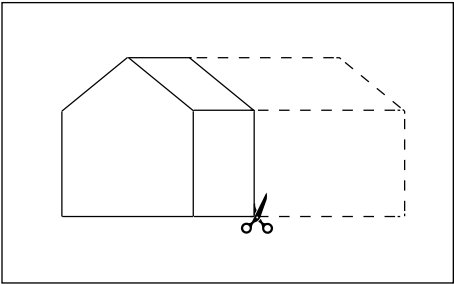


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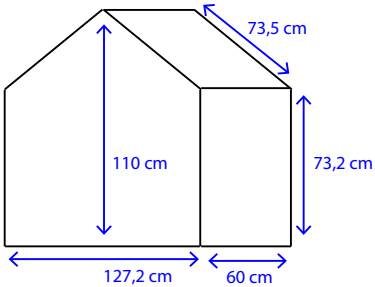


window covered with metal sheet as
on reference.
Partially covered with plaster.
gery colour iron sheet

SECTION



DIMENSIONS



MATERIALS

- STRUCTURE:**
load bearing walls - non reinforced masonry
- WALLS:**
cement plastered (concrete) blocks
- ROOF:**
corrugated iron sheets

Climate: **Semi Arid**



The external and internal walls are built with concrete hollow blocks of 20x40x40 cm and 10x20x40 cm respectively. Bricks can also be a material option for the walls. The roof is composed of sandwich panels.

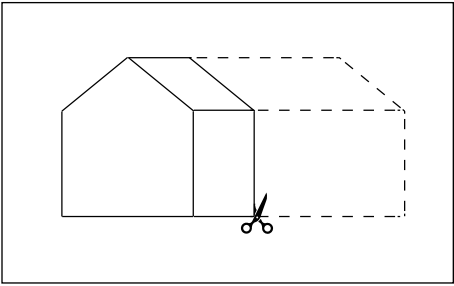


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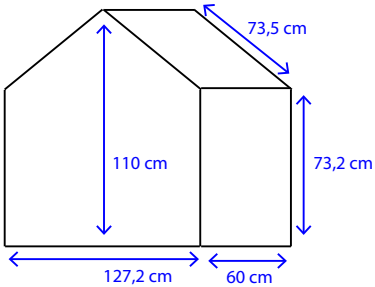


window covered with metal sheet as on reference.
Partially covered with plaster.
gery colour iron sheet

SECTION



DIMENSIONS



MATERIALS

- STRUCTURE:**
load bearing walls - non reinforced masonry
- WALLS:**
woven bamboo mats
- ROOF:**
corrugated iron sheets

Climate: **Tropical monsoon**



The transitional shelter model consists of a timber frame structure with a gable roof. The walls are covered by bamboo mats. The floor is also covered by bamboo mats with timber support. The roof is covered by corrugated iron sheeting. The shelter is reinforced with concrete footing and raised 45cm from natural ground level.

STRUCTURE:
gable timber frame

WALLS:
wattle & daub with straw reinforced earth

ROOF:
UNHCR plastic tarpaulins



Shelter 1.

STRUCTURE:
load bearing walls-non reinforced masonry

WALLS:
mud plastered sun dried mud-brick

ROOF:
UNHCR plastic tarpaulins



Shelter 2.

STRUCTURE:
wood

WALLS:
UNHCR plastic tarpaulin

ROOF:
UNHCR plastic tarpaulins



Shelter 3.

STRUCTURE:
wood/bamboo

WALLS:
bush/wood sticks

ROOF:
straw



Shelter 4.

Shelter 5.



STRUCTURE:
steel frame

WALLS:
light-weight polymer panel

ROOF:
light-weight polymer panels

Shelter 6.



STRUCTURE:
load bearing walls - non reinforced masonry

WALLS:
cement plastered (concrete) blocks

ROOF:
corrugated iron sheets

Shelter 7.



STRUCTURE:
load bearing walls - non reinforced masonry

WALLS:
woven bamboo mats

ROOF:
corrugated iron sheets