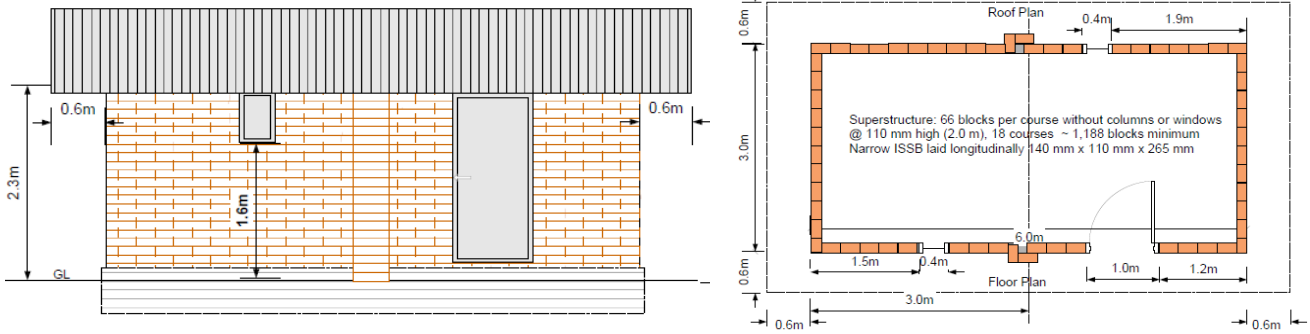
Example of ISSB Transitional Shelter



This Plan is recommended but not mandatory. Beneficiaries are not obliged to use this plan. However the floor area should not be less than 18 m^2 and if the modification results in an increase in use of materials this will be born by the beneficiary.

Technical Specifications and Guidance Notes

Foundations	Foundations may be built with Cement Solid Blocks (CSB) and should be built with care, this normally requires a skilled mason especially for determining the depth to excavate and setting out the dimensions. The width of the superstructure walls built on foundations should be approximately 2/3 of the width of the foundation. The foundation blockwork above ground level must be at least hree courses of blocks (approx 45cm) and that below ground at least two courses (approx 30 cm) depending on the propensity of the area to flooding. The foundation must be positioned such that the roof does not drain on the foundation or the foundation is not in the way of a natural drainage feature on the plot
Drainage	**As part of beneficiary contribution** it is important to ensure that drainage channels are dug around the shelter and latrine to evacuate rainwater from the foundations. The drains must be positioned so that they receive water from the roof when it rains and must be of sufficient slope so that water is evacuated away from the shelter. The drainage channels may be 20 - 40cm wide and 20 - 30cm deep and water must be evacuated away from the house into natural or man made drainage chanels so that it does not drain into someone elses' plot or shelter.
Walls	The soil for ISSB blocks must be carefully selected and tested in order to produce durable blocks. Block fabrication should be carried out with selected soil, sieved, cleaned and mixed with sand or other soil as necessary. In areas prone to rain, blocks should be sun-dried under a shed or plastic sheet and in areas with high sun shine levels blocks must be covered with hessian sacks or plastic sheet to avoid rapid drying and hence shrinkage. Sun-dried bricks should be laid with sufficient mud or clay mortar. ISSB may be laid with clay or cement mortar between blocks.The height of the wall from the foundation to the bottom of the ring beam at any corner should be a minimum of 2.0 m but 2.3 m is recommended. The gable end can be constructed with walling material or with GI Sheets and should be between 0.8 - 1.0 m high, 0.9 m is recommended. ISSB must be cured for 28 days to reach full strength with at least 7 days covered with a polythene sheet to maximise moisture retention. Wall construction is beneficiary.
Plaster	ISSB can be plastered with clay/mud slurry on the inside if desired but as beneficiary contribution. The external face of the walls can also be pointed if required. The composition of the plaster should be 2/3 clay soil and 1/3 fine sand and cow dung added until a thickish consistency is attained. The plastering and pointing is beneficiary contribution.
Doors and Windows	Wooden door and window frames must be of high quality red hardwood, free from blemishes and kinks, well dried and pre-treated with wood preservative or burnt engine oil prior to installation. Wooden door and window frames should be properly anchored in the walls using timber built into the wall during brick laying and properly nailed. The size of the window (wooden frame and plain GI sheet face) should be 60 cm high x 40 cm wide and the door (wooden frame and plain GI sheet face) should be 210 cm high by 100 cm wide. The size of the windows can be reduced if requested by the beneficiary for personal/security reasons. The metal works for the doors and windows (hinges, locks, bolts) may be locally fabricated but must be of sufficient quality and robustness. The hinges for the doors must be at least 10/15? cm long and for the windows 6 cm. The locks for the doors must also be at least 10/15? cm long.
Lintels	Wooden beams for lintels must be of high quality red hardwood, free from blemishes and kinks, well dried and pre-treated with wood preservative or burnt engine oil prior to installation. Wooden lintels should be installed above window and door reservations, minimum dimension of wooden beam (5cm x 5cm). Lintels for doors and windows must be built into wall and laid with sufficient bearing length on both sides of the opening (at least 30 cm).
Roofing (cover and beams)	All wooden roofing members must be pre-treated with wood preservative or burnt engine oil prior to installation. The timber for use in the roof structure must be of minimum dimensions (5cm x 5cm). The anchorage between timber pieces must be firmly fixed with wire nails (minimum 12 cm length) passing through both sections of the wood and bent inwards underneath the lower piece. It is also necessary to attach the roof structure to the walls with hoop iron or 4 mm reinforcement high tensile rods. The hoop iron (or 4 mm reinforcement rods) must be properly tied/nailed to the timber roof structure with at least three brick lengths within the wall. Roofing sheets must be of at least BG 30 gage quality with dimensions 0.9m x 2.5m. The overhang of the roof should be a minimum of 60 cm over the front of the house and 60 cm over the side to protect the walls from rain erosion.
Flooring	It is essential to protect the shelter from the capilary action of ground water or insects coming up through the unsealed floor. To prevent any moisture from rising up the floor, it is recommended to compact the floor area with earth from the foundation. Cow dung and soil can be mixed to produce a hard smooth surface. **This is beneficiary contribution.**
Signboard	A signboard with dimensions (30cm x 25cm) in blue background with white writing should be attached to the front wall of the house for all UNHCR funded projects. The signboard should contain the following information. House No out of total, Funded By UNHCR, Implementing Partner, location and year of implementation. It can be either wooden ot metal plate.
Notes	The Implementing Partner (IP) is responsibile for ensuring the shelter is constructed to the required quality respecting the above specifications. Although certain aspects of the construction are beneficiary contribution the IP must ensure that it is done according to the specifications before completion and handover of structure. Shelter Implementing Partners must ensure the quality of materials supplied to the beneficiaries for shelter construction (eg doors windows, beams, locks, bolts etc). The IP must ensure that there is a signed record of all materials supplied to each beneficiary family for monitoring purposes