I BOUGHT A SHELTER

in aid of the Sichuan earthquake 2008

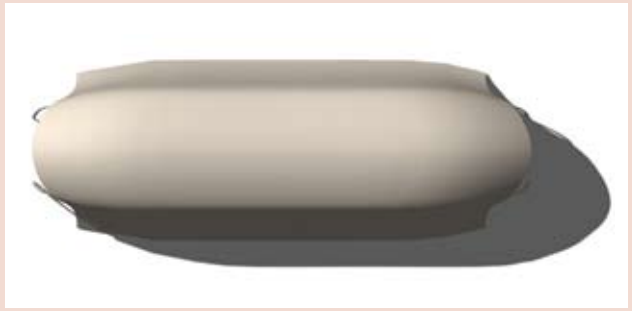
Introduction

We have designed a customized emergency relief shelter that can be used for a range of shelter needs. The shelter is freely available for use by any organisation seeking spacious and adaptable shelter for the Sichuan earthquake relief effort. More information is available at:

WWW.IBOUGHTASHELTER.COM

Shelter overview & structure

Top view



Internal structure

Part covered structure

Cutting list

Material	Use	Units	Size	Cost
Bamboo (split)	Main tunnel structure	40	5m x 50mm	200
Bamboo Poles	Lateral Brace	2	3.2m x 50mm	10
Tarpaulin	Weatherproofing/ Floor Surface/doors	1	16m x 11m	400
Cord	Entrance and venting covers	1	50m	20
Eyelets	Reinforcing cord attachment points	90	10mm	20

Design Benefits

Shelter is made from locally sourced split bamboo poles and durable woven and laminated polyethylene sheeting. This reduces costs and delivery times substantially since the shelter is quickly assembled from these raw materials on site.
Waste is reduced since the materials have many other uses once the shelter is dismantled. Initial costings indicate that the materials for a 21m2 shelter cost approximately 700 RMB – since there is no manufacturing process, the only other costs will be transport costs.

The overlapping hoop tunnel structure provides a very rigid and lightweight shelter. Inside space is maximised with good overhead clearance. The design can be sized on site to fit the occupants' needs by adding/removing bamboo hoops and cutting the sheeting to fit. Shelters will range from 21m2 to 42m2 providing much more space per family than conventional tents.

The shelter is surrounded by gutters dug into the ground that channel rainfall and runoff around and away from the occupants. A groundsheet is included in the final design where needed.

Ventilation is provided at both entrances and via sealable openings in the roof to allow hot air that tends to pool in tents to escape. The shelter is white to help reflect the sun and reduce inside temperatures.

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