



SHIPPING CONTAINER HOMES



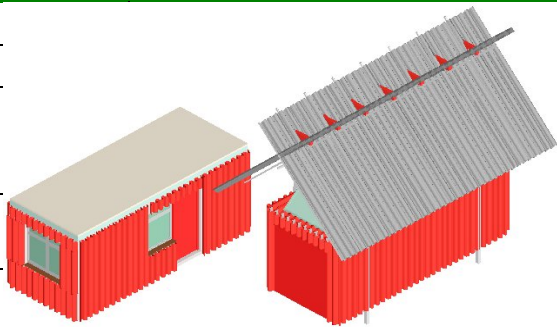
**Reference:** 04

**Name:** Shipping Container Homes

**Climates:** [Dry Climates](#)  
[Moist Tropical Climates](#)  
[Rainforest Climates](#)

**Occupants:** 

**Living area:** 149.32 ft<sup>2</sup>  
13.87 m<sup>2</sup>



**Description:**

In response to the recent Tsunami disaster in Asia, this is architecture that addresses needs rather than desires, but like most our projects we believe it does both. Shipping container homes are intended to provide a temporary housing solution to young couples. Yet, they can also serve as the prototype for mass-produced, relocatable emergency and relief housing. These EcoHouses have applications for a variety of needs – post flood, fire, earthquake, typhoon, or similar natural disasters; couples' flatlets, remote housing. The main volume of the building is a recycled 20-foot shipping container, a universal module that is mass-produced, inexpensive, robust and durable. As a basic unit the container can also be used as required by aid-coordination agencies, or in locations prone to disaster. It is designed to be shipped, and is easily transported by road and rail. All infrastructure for handling the module is available throughout the world. Most importantly, shipping containers are ubiquitous and can be found all over the world. At times they are extremely cheap to obtain; at others, discarded containers can be found free of charge.

The containers as such have had minimal exterior changes: minor additional slots to accept the structure, a top-hinged front opening for the entrance, and a series of operable panels in the roof for ventilation.

A Shipping Container Home can be fully erected within 24h. A pair of steel brackets with telescoping legs is fixed to the outside of the container, which is located on the site by truck or rail-mounted lifting gear. Site levels are established and the legs are pinned into position. Pivoting broad steel plates at the base of the legs eliminate the need for footings, so little site preparation is necessary. Uneven terrain and slopes up to 45° can be accommodated. All fixings are simple mechanisms, requiring basic tools and skills, and little maintenance for remote locales. The EcoHouses produce thermal insulation of R4.0, shading by openable external shutters to co-efficient exceeding 0.49, and natural ventilation, the Moist Tropical/Rainforest Climate type also being supplied with roof lights/vents.

Both eco-homes are provided with optional solar batch water heaters and solar cooking ovens, to fully utilise the energy potential of the blazing tropical sun. The Dry Climate type, on the other hand, makes use of the SKYTHERM® roof pond, with bifold, retractable insulating panels.

The pitched roof intended for the Moist Tropical/Rainforest Climate is easily adapted to local versions of "home" with its galvanised steel frame designed to accept thatch, mud and stick, palm fronds, etc. The containers, however small, are packed full of architecture, both in design and ideals.

As the people of the tropical climates enjoy spending a lot of time outdoors, both designs were envisaged to be accessed via ramped patios (or porches), serving as an extension of the indoor space. Also you may feel free to select either of the two plan types, as both can be roofed using either of the two roofing systems accordingly.

We have focused on the possibilities of using containers in the least modified form, perhaps reducing the work required to adapt them to a level where you alone might be able to perform the necessary conversion work. As a housing alternative to renting or buying, it is one that offers a high degree of portability, customisation, and security. Shipping Container Homes provide good, cheap housing that can be erected or moved close to schools, hospitals and existing communities, instead of ripping up the countryside and forcing people to the edge of existing cities, creating urban sprawl, or where the quality of life may not be very high, public services are stretched, and the car is a must. They are cheap, adaptable, durable, transportable, stackable, light and reusable.

**Areas:**

		Plan Type A		Plan Type B	
		ft <sup>2</sup>	m <sup>2</sup>	ft <sup>2</sup>	m <sup>2</sup>
Living, Dining & Kitchen		62.41669	5.79869808	43.16669	4.010315
Bedroom		49.58335	4.6064424	47.25002	4.389669
Bathroom		18.66667	1.73419008	25.87501	2.403866
	<b>Total:</b>	<b>149.32</b>	<b>13.87</b>	<b>149.32</b>	<b>13.87</b>

**FURNITURE AND EQUIPMENT**

Plan Type A				PLAN TYPE B				ISO MARINE SHIPPING CONTAINER			
ID	ITEM	DESCRIPTION	QTY.	ID	ITEM	DESCRIPTION	QTY.	Length	Width	Height	Weight
								mm	mm	mm	kg
EX1	18x36 in	shutter	2	EX2	18x36 in	shutter	2	<b>EXTERNAL</b>			
EX4	1x6-32"	door threshold	1	EX4	1x6-76"	door threshold	1	6058	2438	2591	2300
C1	BSR2436	kit. base cab	1	C1	WR2430	kit. wall cab	3	<b>INTERNAL</b>			
C2	BDR2136x14	bath base cab	1	C2	BSR2436	kit. base cab	1	5898	2352	2395	
C3	CW2530	crnr wall cab	1	C3	BDR1836x16	bath base cab	1	<b>Door opening:</b>			
C4	CW2430	crnr wall cab	2	C4	CW2430	kit. crnr wall cab	2	2300		2270	
C5	WR2430	wall cab	2	C5	UDR2484	util cab	1				
C6	WR1230	wall cab	2	C6	CW2430	kit. crnr wall cab	1				
C7	CW2430	crnr wall cab	1	C7	WR2430	wall cab	3				
C8	WR2430	wall cab	1	C8	W2630	kit. wall cab	1				
C9	UDR2484	util cab	1	C9	CW2430	crnr wall cab	2				
C10	WR1230	wall cab	1	C10	CW2430	crnr wall cab	1				
C11	CW2430	kit. crnr wall cab	1	C11	WR2430	wall cab	1				
C12	WR2430	kit. wall cab	4	C12	24x12 in	shelf & rod	3				
C13	WR2430	kit. wall cab	1	C13	24x12 in	shelf & rod	1				
C14	WR2430	kit. wall cab	1	C14	24x12 in	shelf & rod	1				
C15	WR0930	kit. wall cab	1	C15	WR1230	wall cab	1				
C16	24x12 in	shelf & rod	2	C16	WR0930	wall cab	2				
C17	24x12 in	shelf & rod	1	C17	WR2430	kit. wall cab	1				
C18	WR2430	kit. wall cab	1	C18	WR2430	kit. wall cab	1				
FX1	23W21D	24" Single Kit. Sink	1	C19	WR2430	wall cab	1				
FX2	24W24D	Corner Toilet	1	C20	WR0930	wall cab	1				

FX3	32W32D	Small 32x32" Shower	1	FX1	36W36D	Corner 36x36" Shower	1
FX4	20W16D	Oval	1	FX2	23W21D	24" Single Kit. Sink	1
A1	24W23D	24"L Under Cntr Ref	1	FX3	24W24D	Corner Toilet	1
A2	25W26D	24" Elec. Range	1	FX4	14W14D	Round Bar Sink	1
FU1	58W80D	Double Bed Contemp.	1	A1	24W23D	24"L Under Cntr Ref	1
FU2	42W20D	Sitting Chair	1	A2	25W26D	24" Elec. Range	1
FU3	36W14D	Half Round Console	1	FU1	58W80D	Double Bed Contemp.	1
FU4	48W17D	Ent. Center 15" TV	1	FU2	42W20D	Sitting Chair	1
				FU3	36W14D	Half Round Console	1
				FU4	24W10D	Wall Shelf	1
				FU5	20W18D	19" TV	1

ISO marine containers are constructed from a steel profile frame with walls of beaded sheet steel and a wooden floor on steel cross members. They are equipped with exterior double doors at one end which open completely (270°).

**Working Drawings Contents:**

Type of Drawing:		Number of Sheets per Drawing:
Site Plan		1
Floor Plans		1
Roof Plan		1
Section		2
Exterior Elevations		4
Joinery details		3
Structural calculation		1
Specifications of Eco-building materials and products		Complete set
Materials List		Complete set
Skytherm details		1
<b>Price (USD): \$</b>		<b>130.00</b>
<b>Complete set of printed plans + CAD files on business-card CD (USD):\$</b>		<b>154.15</b>



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