



ADOBE SKYTHERM® HOME	
Reference:	03
Name:	Adobe Skytherm® Home
Climates:	Dry Climates Humid Middle Latitude Climates
Occupants:	
Living area:	726.09 ft ² 67.46 m ²



Description:

Should more than 600 million houses required for the homeless world's population were to be built in a single row, they would go around the circumference of the Earth nearly a hundred times. It is unlikely that even half these houses will ever be built with modern building materials such as bricks, cement and plastics. Traditional building materials such as bamboo, wood, grasses, lime, pozzolanas, stone, cloth, animal skins and of course, **soils** continue to be used.

The majority of urban and rural households around the world cannot afford to purchase even the cheapest modern house. If the world economy continues to worsen in the 21st Century, and cement and brick prices fuelled by rising energy prices continue to rise, the small proportion of households who can afford modern housing will become even smaller.

Making use of traditional building materials and patented passive solar systems gave rise to this organic house design. **Adobe** is a word commonly used to describe the use of earth as a building material in places like Mexico, the southwest USA, and Spain, so stabilized earth - as one of the cheapest, most abundant building materials, has been used to design the walls of this house. Earth provides excellent heat insulation, so inside, an adobe building is cooler in summer and hotter in winter, than a building made of steel and concrete. Structurally speaking, earth is difficult to squash, and thus makes good walls.

The alternative material for the house's walls is Pumice-crete, a low density concrete made from pumice aggregate, portland cement, and water. The walls are very durable, fireproof, have good noise resistance, and are very aesthetically pleasing because they can be formed to fit many architectural appearances and styles.

The **Skytherm®** Roof Pond, patented by architect Harold Hay, has been incorporated in the design. The roof is made of water bags and movable covering of insulating panels. In your winter season, the panels are left open during the day to allow sun's heat to be absorbed and transferred into the house; at night, the panels are closed to conserve the heat. In your summer season, the process is reversed, with closed panels during the day to insulate the water bags from the sun's heat and allow heat to be drawn from inside, while at night they are left open to allow the water to radiate heat to the night sky. The panels are rolled either manually, or using a 1/4HP reversible motor.

The extraordinary building form is derived from the plasticity of earth as a material, as well as the principles of **Organic Architecture**, which suggests that there are no straight lines, symmetry, or angles in nature, and that buildings should be shaped likewise. The aerodynamic walls also provide minimum resistance to strong winds and sandstorms, often found across **Hot Dry climates** for which this building is ideally suited. The parapet walls above roof can be shaped and carved to meet your aesthetic taste, giving your house an original look.

ADOBE SKYTHERM®s, above all, a modest, low-budget design, convenient for smaller households and people who prefer to live by laws of Nature.

Areas:

Floor Plan		ft ²	m ²
Living & Dining		191.1994	17.763
Kitchen		71.00955	6.597
Master Bedroom		170.0914	15.802
Bedroom		110.3301	10.25
Store		24.24034	2.252
Bathroom		81.20298	7.544
Laundry		6.738211	0.626
Entry		39.14836	3.637
Foyer		32.13029	2.985
Total:		726.0907	67.456

FURNITURE AND EQUIPMENT

GROUND FLOOR			
ID	ITEM	DESCRIPTION	QTY.
C1	UDR2484	util cab	6
C2	UDR2484	util cab	1
C3	UDR2484	util cab	1
C4	BDR2436x21	base cab	1
C5	CBS3636	crnr base cab	1
C6	BDR2436	base cab	1
C7	BDR1836	base cab	1
C8	CW2430	crnr wall cab	1
C9	WR2430	wall cab	4
C10	WR2430	wall cab	1
C11	WR2430	wall cab	1
C12	WR2430	wall cab	1
C13	UDR2484	util cab	1
C14	UDR2484	util cab	1
C15	UDR2484	util cab	1
C16	PUDR2484	util cab	1
FX1	30W30D	Handicap Toilet	1
FX2	20W16D	Rectangular	1
FX3	64W64D	Corner 64x64" Spa	1
FX4	33W33D	Corner Kit. Sink	1
A1	25W26D	24" Elec. Range	1

A2	11W24D	Trash Compactor	1
A3	30W29D	30"L Ref/ Freezer	1
A4	27W28D	Washer	1
FU1	80W84D	King Bed Contemp.	1
FU2	20W18D	2 Drawer	1
FU3	20W18D	2 Drawer	1
FU4	29W17D	Ent. Center 18" TV	1
FU5	34W34D	Left End	1
FU6	58W58D	42 Diam. Seat 4-5	1
FU7	24W12D	Clothes Hamper	1
FU8	34W34D	Center Section	1
FU9	48W24D	48x24 Contemporary	1
FU10	26W26D	Swivel Chair	1
FU11	42W80D	Contemp. Twin Bed	1
FU12	60W21D	Ent. Center Offset	1
FU13	34W34D	Center Section	1
FU14	34W34D	Center Section	1
FU15	48W24D	48x24 Contemporary	1
FU16	26W26D	Swivel Chair	1
FU17	34W34D	Corner	1
FU18	72W24D	Ent. Center 27" TV	1
FU19	36W36D	Yucca	1

Working Drawings Contents:

Type of Drawing:				Number of Sheets per Drawing:	
Foundation Plan					1
Floor Plans					1
Roof Plan					1
Section					1
Exterior Elevations					2
Joinery details					4
Structural calculation					2
Specifications of Eco-building materials and products					Complete set
Materials List					Complete set
Roofing details					1
Wall details					1
Internal finishes details					1
Skytherm details					1
				Price (USD): \$	384.00
				Complete set of printed plans + CAD files on business-card CD (USD):\$	413.83



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