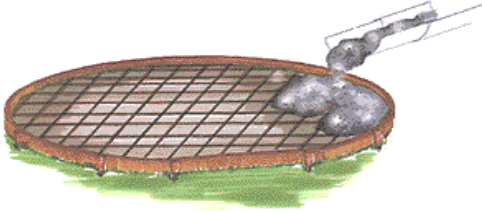


REF: 08 DESIGN FEATURES

FEATURE 1: THE ECOSHELL

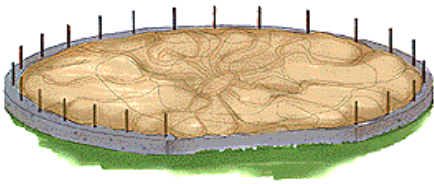
Produced by the **Monolithic Dome Institute** from Italy, Texas, the EcoShell (economical thin-shell concrete structure) is essentially a concrete shell without the insulation. Just like the Monolithic Dome, it is one of nature's strongest buildings. It is virtually impervious to fire, tornadoes, earthquakes, and it is inexpensive.

The EcoShell is an answer for sheltering and storage in much of the world. It is especially attractive for countries where wood and steel may not be readily available. Being perfect for any building that needs no insulation, the EcoShell is ideal for hurricane shelters, garages, small warehouses, sheds, storage, grain storage, or housing in disadvantaged countries.

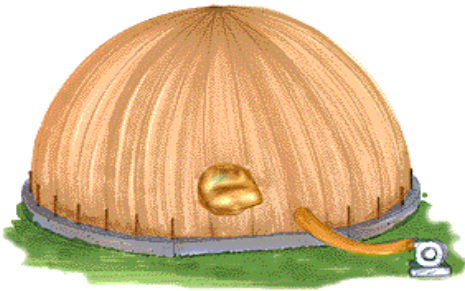


The EcoShell starts as a steel reinforced concrete ring foundation/floor.

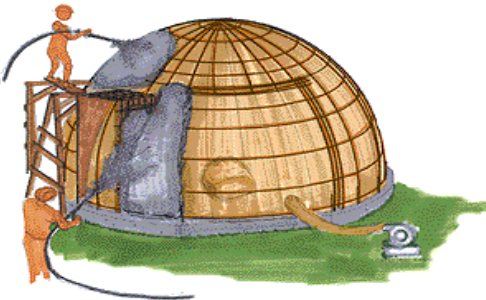
Vertical steel bars embedded in the ring are attached to the steel reinforcing of the dome itself.



After the Airform is spread and fastened to the floor it must be sealed to prevent air leakage.



Using blower fans, the Airform is inflated which creates the shape of the structure to be completed.



Next, the rebar is placed, spaced per engineering. The verticals go against the Airform and the horizontals on the outside. Additional plywood frames for doors and windows can be set against the inflated Airform. Remove from inside after the concrete is set.



Remove Airform after the concrete is set. Wire brush the rebar on the inside to remove any loose material, then spray .5 to .75 inches of concrete to the inside surface.

Now that the shell is finished hang doors, windows, and vents. The EcoShell can be used as is or it may be roof-coated - preferably white to reflect heat.

FEATURE 2: DAMAGE THAT STORMS DO

Category / Typical Damage



C1 Minimal: Damage is done primarily to shrubbery and trees, unanchored mobile homes are damaged, some signs are damaged, no real damage is done to structures.



C2 Moderate: Some trees are toppled, some roof coverings are damaged, major damage is done to mobile homes.



C3 Extensive: Large trees are toppled, some structural damage is done to roofs, mobile homes are destroyed, structural damage is done to small homes and utility buildings.



C4 Extreme: Extensive damage is done to roofs, windows, and doors; roof systems on small buildings completely fail; some curtain walls fail.



C5 Catastrophic: Roof damage is considerable and widespread, window and door damage is severe, there are extensive glass failures, some complete buildings fail.

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