



## *Haiti: Relief, Rebuilding and Recovery*

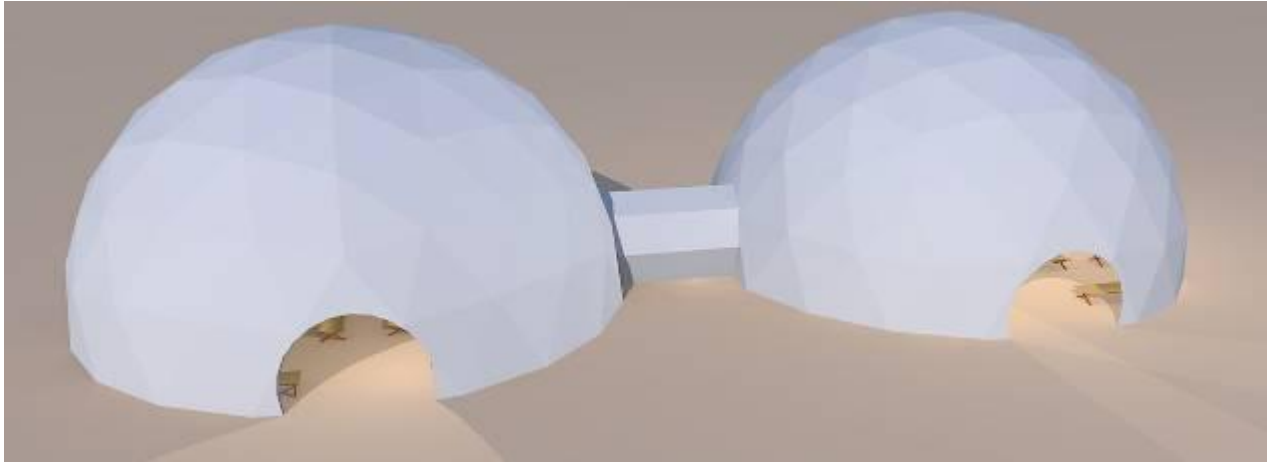
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### **Trauma Center, Surgery Suite and Patient Care for Haiti**

- For staffing, equipment and supplies by medical agency
- 3000 ft<sup>2</sup> total enclosed space
- Separate rooms for surgical procedures
- Cots/"ward beds" for 40 patients
- Adequate lighting for different purposes
- High air-exchange ventilation
- Refrigerator and freezer
- Adequate power 120% of anticipated max load: 80% solar, 40% generator

### Budget 3,000 ft<sup>2</sup> Enclosures for Trauma Center, Surgery Suite and Patient Care

- Two each 44 ft diameter domes with enclosed rooms inside the shells
  - Galvanized steel frame
  - Assemble by hand – no special equipment required
  - Fire-retardant and UV-resistant cover
    - White "Tropical Plus" vinyl
  - Windows
  - Overlap fabric doors
- Two - Five (or more, as specified), enclosed rooms
  - Hard-panel frameless enclosed rooms
    - Options include 110 ft<sup>2</sup>, or 200 ft<sup>2</sup>
    - Price includes 3 ea 110 ft<sup>2</sup>, 2 ea 200 ft<sup>2</sup>
- High-efficiency LED lighting, appropriate for the purpose of each space
- Vent fans, self-contained solar powered
- Adequate electricity for all lighting and air conditioning
  - 80% of capacity from solar electric system
    - Solar panels, gel batteries, invertors, control boxes, wiring
  - Additional 40% of capacity (i.e. 120% of load total) provided by quiet generators
    - fuel to be specified (propane, gas, diesel)
- Refrigerator 12v DC 10 ft<sup>3</sup> ultra-high efficiency for vaccines and similar items
- Freezer 12vDC 4 ft<sup>3</sup> ultra-high efficiency for whole blood and serum
- **TOTAL PRICE FOB ORIGIN: \$157,000**



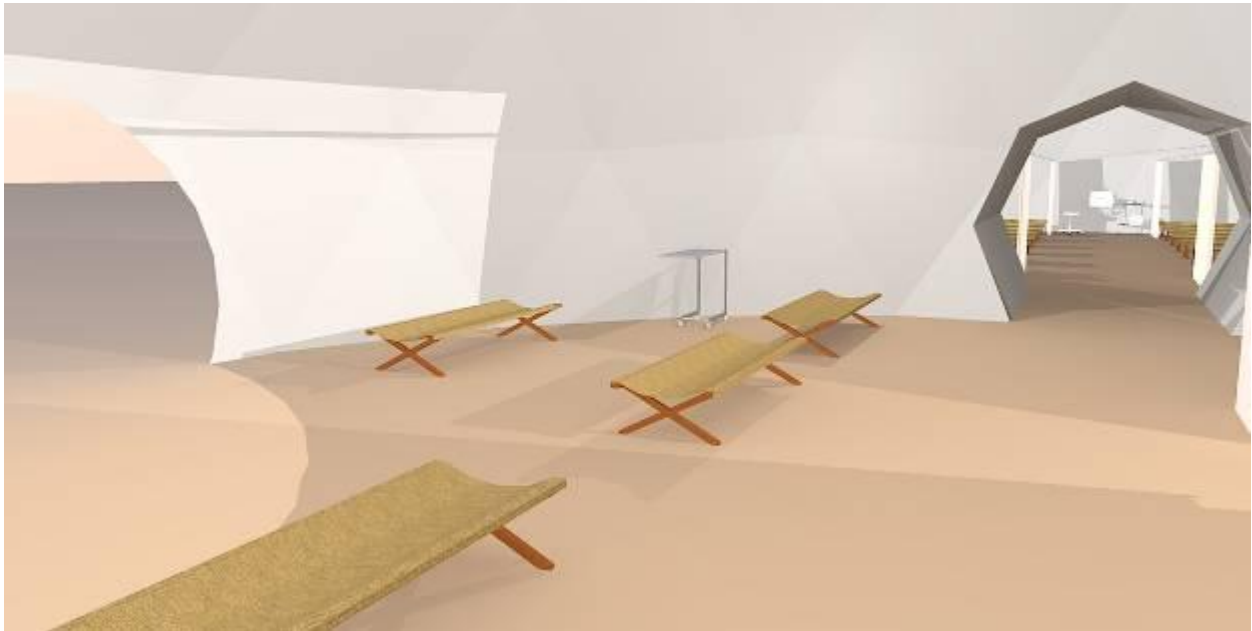
World Shelters is an NGO - US non-profit 501(c)(3)  
550 South G St., Suite 3, Arcata, CA 95521 USA phone +1 707 822 6600 \* fax +1 707 633 1737  
[www.worldshelters.org](http://www.worldshelters.org) [info@worldshelters.org](mailto:info@worldshelters.org)



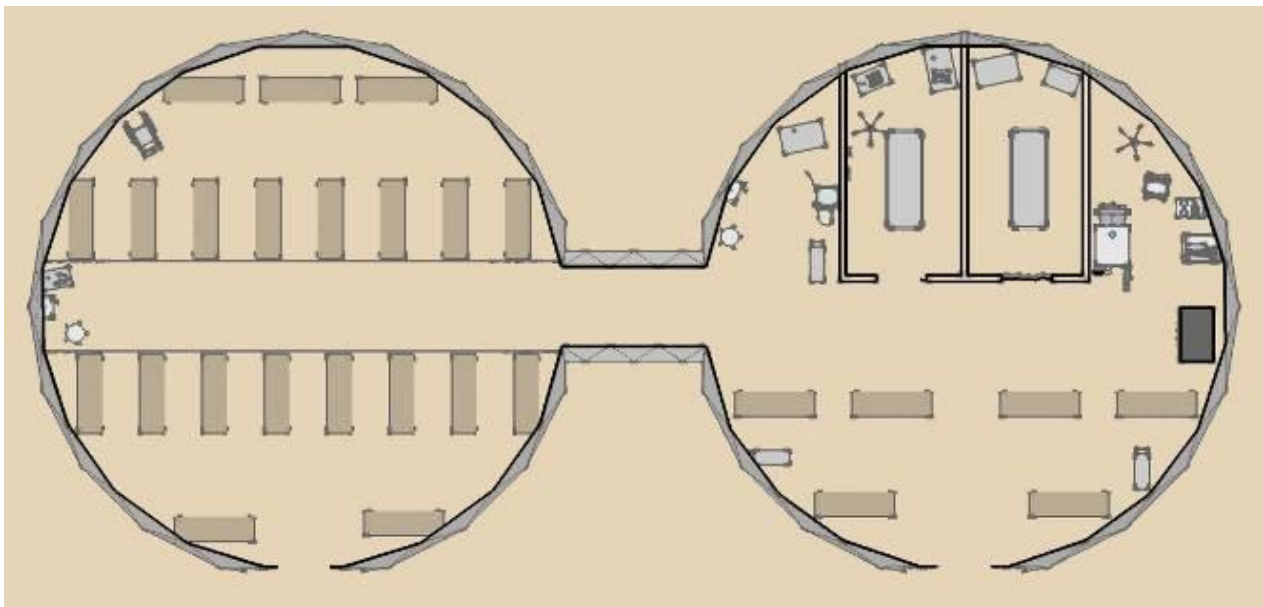
Interior structures are frameless, hard-panel fire-retardant structures of either 110 ft<sup>2</sup> or 200 ft<sup>2</sup>.



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Layout is adaptable based on needs. Additional interior enclosed rooms can be provided.



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**DIAMETER AT BASE**

44 feet (13 meters)

**CEILING HEIGHT**

22 feet (6.7 meters)

**FLOOR SPACE**

1,520 sq. feet (141 sq. meters)

**FREQUENCY**

6 (1/2 sphere)

**ROUND EVENT DOORS**

3

**LINEAR MEASUREMENT**

2,535 feet (773 meters)

**STANDARD 0.92" FRAME WEIGHT**

1,166 lbs. (529 kg)

**APPROX. COVER WEIGHT**

800 lbs. (363 kg)

**TOTAL WEIGHT OF DOME**

1,966 lbs. (892 kg)

**ASSEMBLY TIME**

12 hrs with crew of 3 or 4 (special equipment)

*\*may take 10 hours for first time setup crew*

**STANDING**

217 people

**ROW SEATING**

140 people

**BUFFET DINNER**

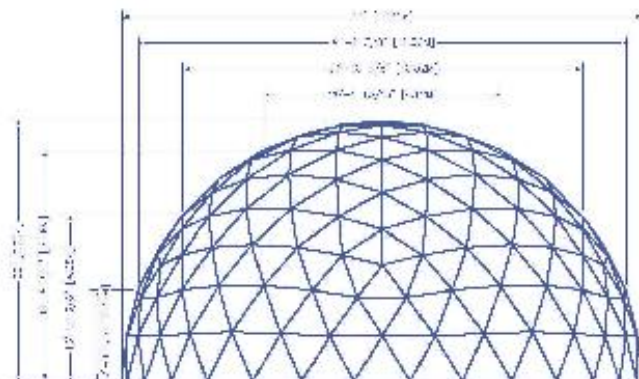
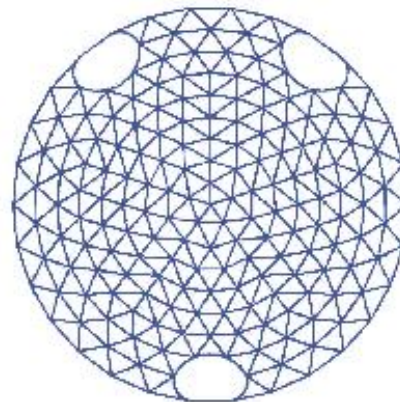
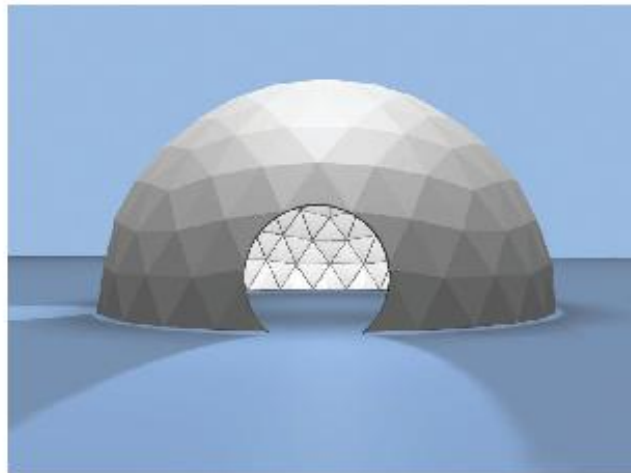
125 people

**ROUND & STAND UP TABLES**

100 people

Please contact us for more information about available options, alternative covers, or heavier frames.

*\*All weights are calculated, not actual shipping weights.*





## Interior structures under the 44 ft dome shell:

### World Shelters' U-Dome200 and U-Dome110

Note: these structures can also be erected and used outside of the larger 44 ft dome shell.

#### Benefits:

- Lightweight compact shipping
- Pleasant secure living space
- Simple assembly
- Flame retardant
- Low cost, durable
- Withstand high wind, rain
- Disassemble and re-use

#### Design Features:

- Shingled construction
- Shell structure, no internal frame
- Panels form internal support struts
- Several door options
- Several platform plans for various site conditions
- U-Dome200 is 16 ft diameter, 12 ft tall, 200 square feet
- U-Dome110 is 10 ft x 14 ft x 10 ft tall, 110 square feet
- Recyclable material



#### U-Dome200 Specifications

Dimensions	4.88 m diameter x 3.66 m height (16 ft diameter x 12 ft height) 18.6 m <sup>2</sup> enclosed space (200 ft <sup>2</sup> )
Materials	Panels are flame-retardant corrugated polypropylene, 5mm thick (mat'l specs available) Precision die-cut panels of five shapes, including pre-punched bolt holes 3 to 5 year panel lifetime if not painted or protected from UV Can paint with exterior latex enamel (water based) for UV protection and extended use
Fasteners	Bolts nylon M6x30mm Philips panhead, natural Nuts nylon 66 "Push-n-Twist" M6 black

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	Washers nylon 25mm OD x 6.3mm ID, natural
Design	Weatherproof shingled laminar dome of diamond panels, scored/folded into triangles 2v icosahedron geometry, 1/2 dome on vertical wall 1.17m (46") Internal framework provided by "origami beams" folded from the panels on every interior edge External shingling of every edge and vertex
Doors	Dome panels pre-cut to frame 24"x72" 10mm poly or RV-style locking solid and screen double door Interior wooden door frame included for 24"x72" doors Dome panels pre-cut to frame 30"x80" door, for US pre-hung exterior door (acquired locally)
Vents	Roof vents: aluminum hooded and skirted vent, 4", 6" or 12" diameter Panel vents: aluminum screened and shingled vent, 6"x16" Cooking vent or wood stove vent: galvanized steel panel with pass-through for specified vent pipe
Windows	Acrylic (Plexiglas) triangle windows 17" tall x 34" wide, with screened opening mechanism.
Floor options	Floors are provided by user, as appropriate for each site Plans provided by WS for joisted floor using 3/4" OSB and PT 2x4's
Modularity	Multiple U-Domes can be joined together
Load capacities	Standard single-shell U-Dome: Wind resistance to Force 9; Snow load to 10cm (4") on ground snow Double-U Dome for winter, with Snow Cap: snow loads in excess of 25cm (10") ground snow Insulation by dead-air gap of 9cm (3 1/2"), minimizes both conduction and convection
Anchor/guying	Footing at base of vertical wall panels provides screw-down anchor points into wooden platforms Attachment eyes at key locations on U-Dome for attaching guy lines and/or anchor lines Anchoring is mandatory. Guy lines recommended when wind exceeds 40mph.
Instructions	Iconic instructions and labeling on every edge of U-Dome panels guide the assembly process
Assembly	Four people can assemble a complete U-Dome in four hours.
Standards	Complies with Sphere standards, suitable for maximum five residents
Shipping	1.82m x 1.52m x .25m (72"x60"x12") unit pack includes U-Dome shell, fasteners, instructions, tools Packed in one parcel of 91kg (200lbs), can be hand carried by 2-3 people to site of use 76 unit packs fit inside a standard 40' shipping container = 1,784 m2 (19,200 ft2) shelter per container

\* \* \*

For additional information, please contact World Shelters

[info@worldshelters.org](mailto:info@worldshelters.org)

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