

cluster-structures

# Shelter Systems

The Gregg Fleishman Studio is presenting here a relatively inexpensive, expansive, and artful alternative to conventional building. The system features only router cut plywood panels with integral slots and notches. There are no screws, no nails, and no bolts. Maximum convenience, minimum waste.

## DH 1

### BASICS:

The full size **DH 1** module is made from 3/4 inch thick sustainably harvested Finland Birch. It measures 14 feet by 14 feet by 12 feet, with 196 square feet of interior space.

### FEATURES:

Structural floor on four pier points  
Four pairs of 60 inch wide entry doors  
32 inch diameter window openings, each pair  
60 inch square skylight opening  
10 foot by 5 foot entry landing.

#### Other features:

Intra modular four ways, small pieces that can be handled without cranes or other means.

Although it is strong, it is flexible and very safe in earthquakes, though it does need to be tied down for wind by some means.

### OPTIONS:

Entry ramp access.

### NOTES:

Indoor use; no special requirements.

Exterior use; A phenolic resin coating renders the panel surfaces waterproof. Wall edges can be oiled to allow for intermittent contact with water, wall and roof joints caulked. Disaster situation solution; the structure is intended to be insulated with indigenous materials such as straw and then wrapped with a canvas or plastic membrane. In a warm island climate just a rain fly might suffice.

Permanent installations; finished of like any house, with insulation, mechanical systems, and conventional exterior treatments, like stucco.

### Structures Parts List:

Available upon request

### Assembly Instructions:

Available upon request

### MATERIALS:

FINLAND, LATVIAN, or RUSSIAN EXTERIOR BIRCH PLYWOOD

Allowable stress (psi):

Extreme Fiber Stress in Bending 3,600

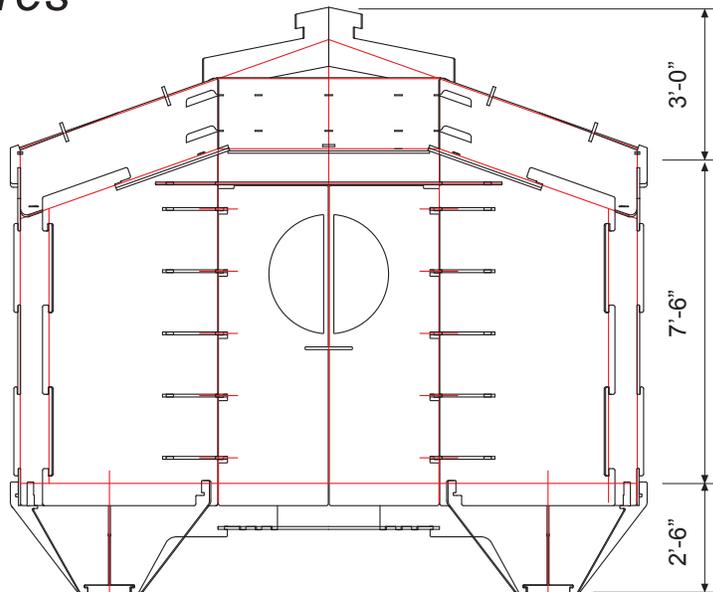
Compression in Plane of Panel 2,500

Rolling Shear Stress 100

Modulus of Elasticity 2,200,000

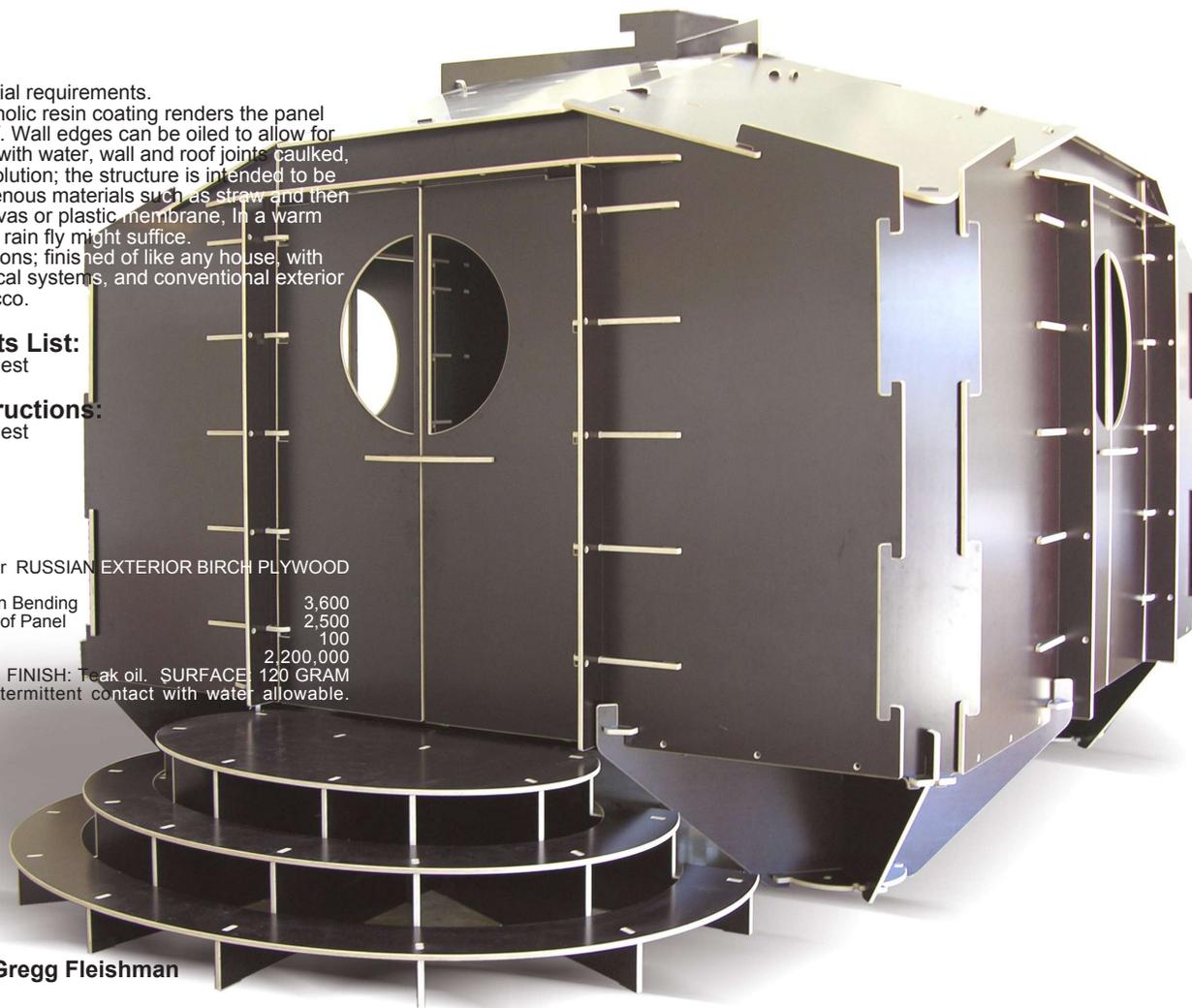
Recommended EDGE FINISH: Teak oil. SURFACE: 120 GRAM

PHENOLIC FILM. Intermittent contact with water allowable.



## DH 1

Proposal for Emergency Shelter  
All elevations identical



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