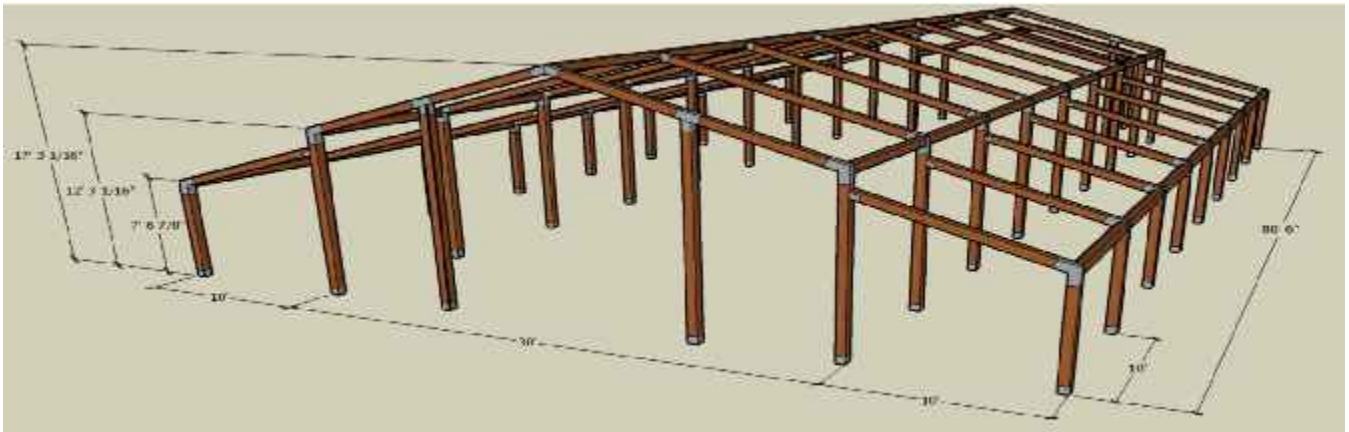


ECO-STRUCTURES



FRESH AIR STATION

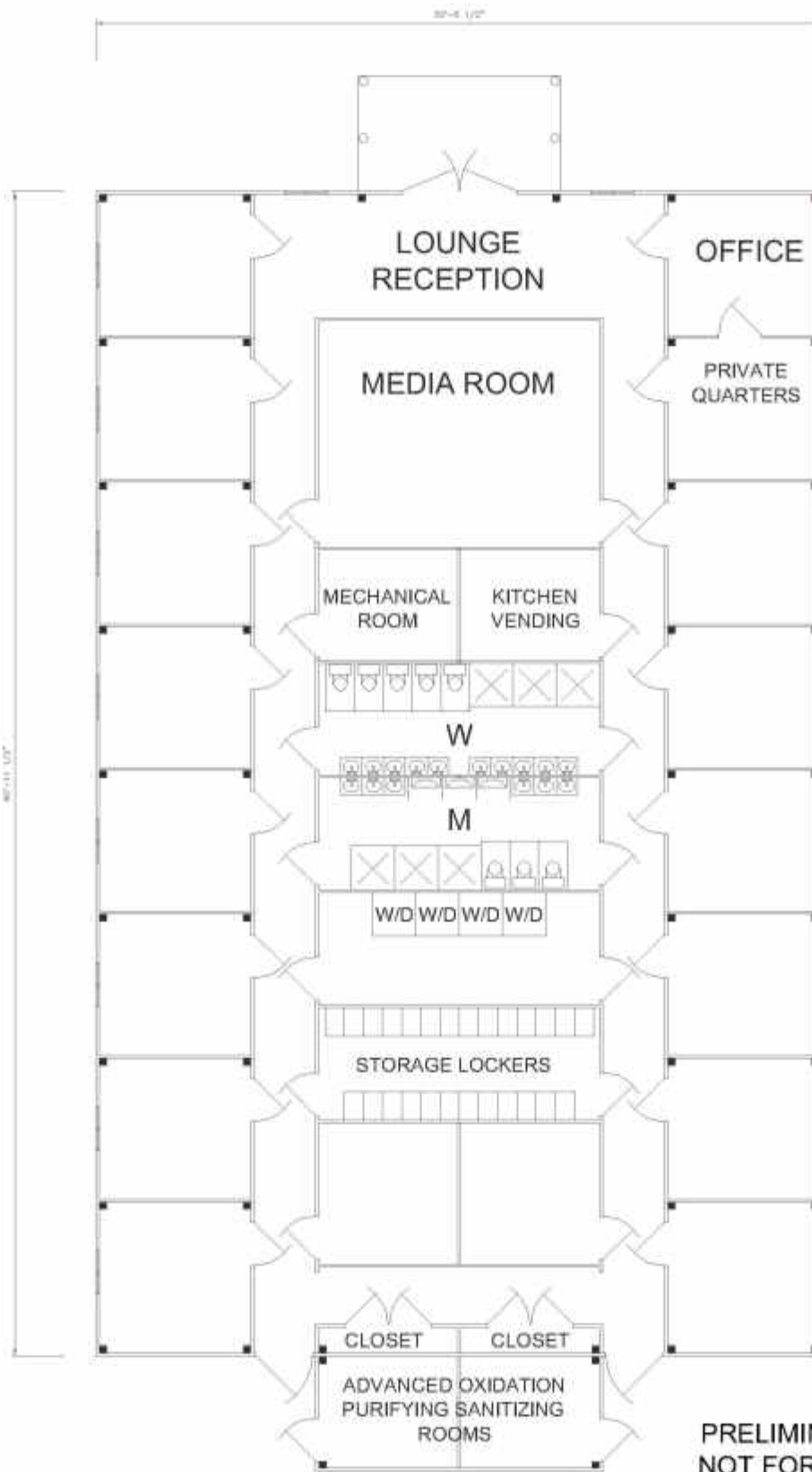


SUPPLY / DESIGN / BUILD



WWW.JOHNSONBUILDINGSYSTEMS.COM

Tel: 800-445-7249 or (215) 673-6050 Fax: (215) 322-2076



PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION



A-3

16
10' X 10'
Bunk
Rooms

NO.	DATE	BY	CHKD.	APP.	REV.



JOHNSON BUILDING SYSTEMS, INC. TEL: (215) 673-6000
875 Jekyll Rd. #4 FAX: (215) 352-0076
Southampton, PA 18966-3854
www.JohnsonEnergyGroup.com
E-Mail: Admin@JohnsonEnergyGroup.com

Proposed 50'x80'+/-
ECO-STRUCTURES
SUNTREE
Fresh Air Station

ECO STRUCTURES

TIMBER LINK TILT-UP FRAMING SYSTEM

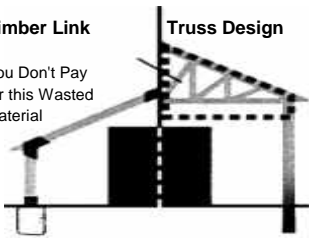
6X6 TIMBER LINK EASYWARE (HARDWARE)

Enables you to construct a simple, strong and spacious building, faster, easier, and for less money. Timber Link provides the strength of Post and Beam. Timber Link joins 6" x 6" solid wood members or 2"x 6" engineered laminated timbers meeting local building code compliance.



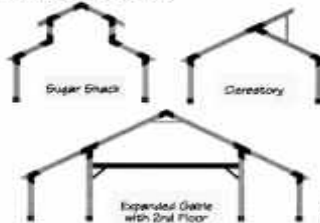
Timber Link

You Don't Pay for this Wasted Material



The two most popular buildings have a Gable or Gambrel roof. Clear span buildings up to 30ft wide (by any length) can be erected using either one of these designs. Our 5 sided and 6 sided structural wall designs are also available.

OPTIONAL DESIGNS



Optional Steel / Wood beams allow for second floors.



**No Moisture!
No ROT!
No Waste!**

Timber Link TILT-UP Easyware

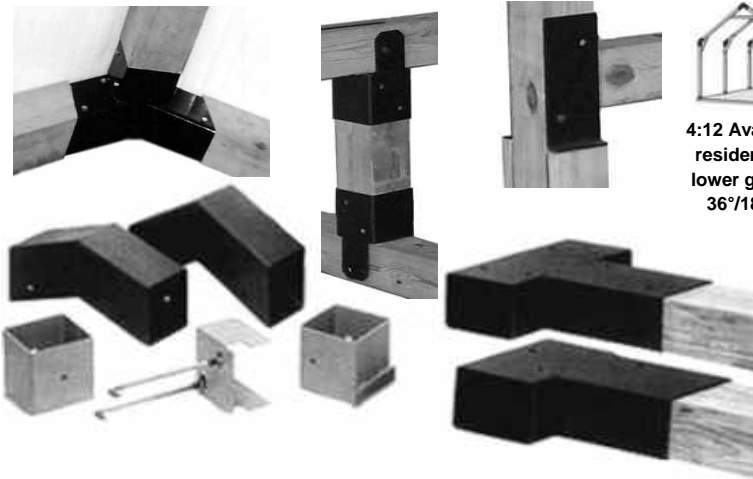
Made of 3/16" carbon steel black powder coated for moisture protection. Products carry written transferable lifetime warranty and come with an easy to follow, illustrated field manual, for the first time or professional builder.

**Standard 7:12
Gable 30° Roof
Pitch**

**For Gambrel 36°
Roof Pitch Use
5 Sets of
L-Bo's 4:12 Pitch**



4:12 Available for residential with lower gable roof 36°/18° Pitch



Solid Core Structural (SIPS) Insulated Panels



Other Bay Options Include Steel Truss Frames with 8x8 Timber Support. Works the same way as our 6x6 Timber Link but with a larger clear span of 40 feet.



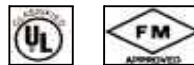
IMPs WALL AND ROOF DECK

26 Ga. STUCCO EMBOSSED METAL-SHIELD PANEL SYSTEM

- 3" EPS R13.5
- 4" EPS R18 *
- 5" EPS R22
- 6" EPS R27 *

Florida Approval *
FL6787 / FL9685

- 2-3/4" URE R22
- 4" URE R32



**CLASS 1 FIRE RATED
URETHANE INSULATED PANELS**
standard 45' Coverage
FM-4880/ASTM-E84
Passed testing Class 1
Fire rating



TIMBER LINK - Basic Parts for 4/12 or 7/12 Roof Pitch. (8x8 available)

Description	Where to Use
L-BO (7:12 Pitch) 30°	Peak and Eave
(Pass-Thru) "T" Same angle as L-BO	Expanding Spans
(Structural) "T" Same angle as L-BO	Expanding Spans
L-BO (4:12 Pitch) Gambrel 36°	Peak and Eave
L-BO (4:12 Pitch) Gable Eave 18°	Eave Only
Hinged Frame Anchor (6"x 6")	L-Bolts Included
Rigid Frame Anchor (6"x 6")	L-Bolts Included
Hinged Frame Anchor (Pole Mount)	L-Bolts Included
Hinged Frame Anchor (Skid Mount)	L-Bolts Included
Floor Hanger for Steel or Wood Beams	2nd Floor
Upper Shed Roof Hanger	Extend Roof
Lower Shed Roof Hanger	Extend Roof
Timber Trough (Add For)	Directional Support

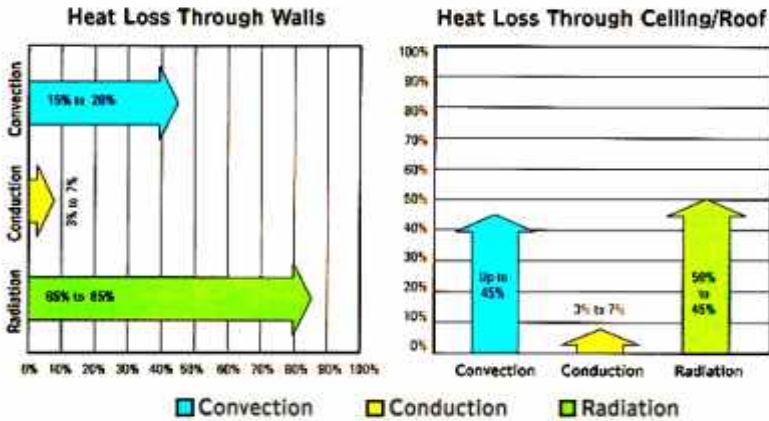
AN UNDERSTANDING APPROACH TO HEAT LOSS/GAIN

Heat loss and energy savings are directly proportional to the "U" value, which is 1/R. Doubling your "R" value does not necessarily double your energy savings. The higher you go on the "R" value chart, the less efficient each point of the "R" value becomes. Increasing your "R" value from 2 up to 10 reduces heat loss by 80%. By Jumping the "R" value from 10 to 20, then decreases heat loss by another 10%. Therefore 90% of your savings is achieved with the first R-20. The chart below will assist you in selecting materials to give you the most economical range of "R" value.

In most cases, either 4" RIGID-R-BOARD, 5" EPS or 2-3/4" Urethane insulation in the roof and walls will provide R-22, an economical energy package with the 4" RIGID-R-BOARD being the more cost effective. The additional investment allocated could be considered for upgrading windows and other products rather than increasing the "R" value of the panels to a super high level of R-40 and R-50.



50' X 80' (4000 sq.ft.)+/- ECO-STRUCTURE SUNTREE FRESH AIR STATION



Benefits of INSOLRAE Performance Insulation

- Controls Condensation • Stops Heat
- Environmentally Safe • Deadens Sound
- Reduces Installation Cost • Lightweight
- Birds and Rodent Resistant
- Superior Flame/Smoke Rating
- Saves Energy
- Cost Effective

THERMAL REFLECTIVE SELF-TAPING

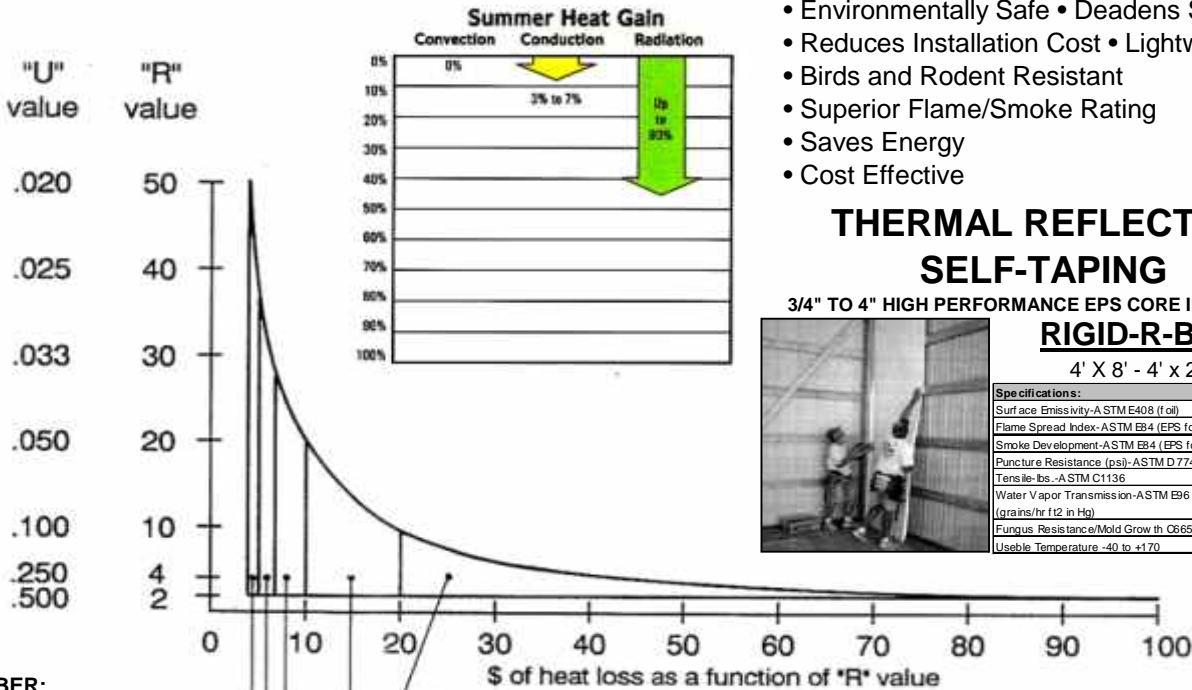
3/4" TO 4" HIGH PERFORMANCE EPS CORE INSULATION

RIGID-R-BOARD

4' X 8' - 4' x 24' Max



Specifications:	
Surface Emissivity-ASTM E408 (f oil)	0.03
Flame Spread Index-ASTM E84 (EPS foam)	25
Smoke Development-ASTM E84 (EPS foam)	300
Puncture Resistance (psi)-ASTM D 774	90
Tensile-lbs. -ASTM C1136	1.9 - 2.8
Water Vapor Transmission-ASTM E96 (grains/hr ft2 in Hg)	0.02
Fungus Resistance/Mold Growth C665/C1338	None
Useable Temperature	-40 to +170



MEMBER:



**JOHNSON
ENERGY
GROUP**

R 2 to 10	80.0% Energy Savings	(Average Savings per 1.0 of R-value=8.0%)
R 10 to 20	10.0% Energy Savings	(Average Savings per 1.0 of R-value=1.0%)
R 20 to 30	3.4% Energy Savings	(Average Savings per 1.0 of R-value=0.4%)
R 30 to 40	1.6% Energy Savings	(Average Savings per 1.0 of R-value=0.2%)
R 40 to 50	1.0% Energy Savings	(Average Savings per 1.0 of R-value=0.1%)