# COMPLETE MOBILE HOME WEATHERIZATIOM

By

Cal Steiner

# What can we do with these old mobile homes, PLENTY

as long as they do not have major construction issues.





# Typical list of energy savings measures including health and safety measures that <u>CAN</u> be applied

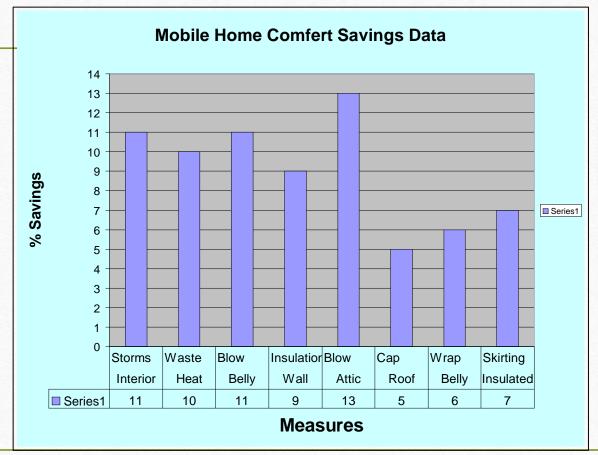
- Complete Audit Savings- SIR
- Diagnostics, and Air Sealing
- Pressures, Moisture, Duct Sealing Health and Safety
- Attics Insulation
- Wall Insulation
- Belly's Floor Insulation



## Audit and Savings Verify a <u>SIR</u>

#### 6 Basic steps to mobile home insulation

- 1. Complete accurate audit
- 2. Access cavities
- 3. Install insulation in a cost effective and effective manner
- 4. Sealing Access point
- 5. Diagnostics
- 6. Inspection



Labor Study Ranges				Suggested	Range
Hours for a jo	at a 20% + or -	variance			
				Minimum and	Maximun
				Hours per each	<u>material</u>
Man hours					
Mobile Home Doors	2.5	Hrs per	door	2.0000	3.0000
An average mobile home door should take between 2 and 3 hours					
Mobile Home attic	0.8224	Hrs per	27 lb blowin fiberglass	0.6579	0.9869
An average 20 bag attic would take between 13 and 20 man hours					
Mobile home floor	0.6	Hrs per	27 lb blowin fiberglass	0.4800	0.7200
An average 20 bag belly would take between 9.5 and 14.5man hours					
Mobile Home wall stuff	0.019	Hrs per	sq ft of fiberglass batts	0.0152	0.0228
An average 14X66X7.5 ft mobile doing 70% (840 sq ft) would take between 13 and 19 man hours					
Mobile Home wall blow	1.168	Hrs per	26 lb blowin fiberglass	0.9344	1.4016
An average 14X66X7.5 ft mobile doing 70% approx with 2.5 inch walls and 1inch					
existing (8.3 bags) would take between 7 and 10.5 man hours					

#### **Complete Mobile Home Weatherization**

#### North Dakota Style



#### **■ Total Costs and time:**

Measure	Time-man hours	Cost-labor/mat.
Walls	8 hours	437.50
Attic	10 hours	576.75
Belly	10 hours	667.00
Duct work	3 hours	71.00
Storm window	.7 hours	123.00
Air infiltration	2 hours	<u>34.00</u>
<b>♦</b> Totals	33.7 hours	<b>\$1,908.25</b>

Does not include set-up and tear-down time

### DIAGNOSTICS – AIR SEALING

- Air tightness blower door
- Duct work testing and repairing
- Room to room pressure test
- House to outside test with furnace on
- CAZ test







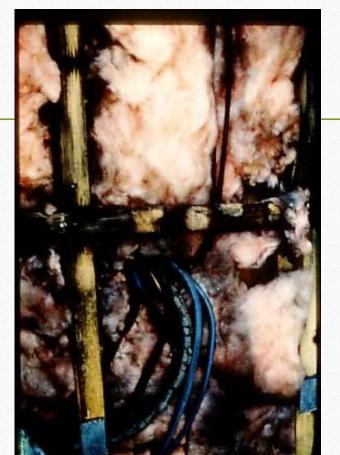


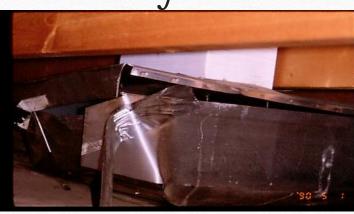




## Pressures, Moisture, Health & Safety











### ATTIC INSULATION

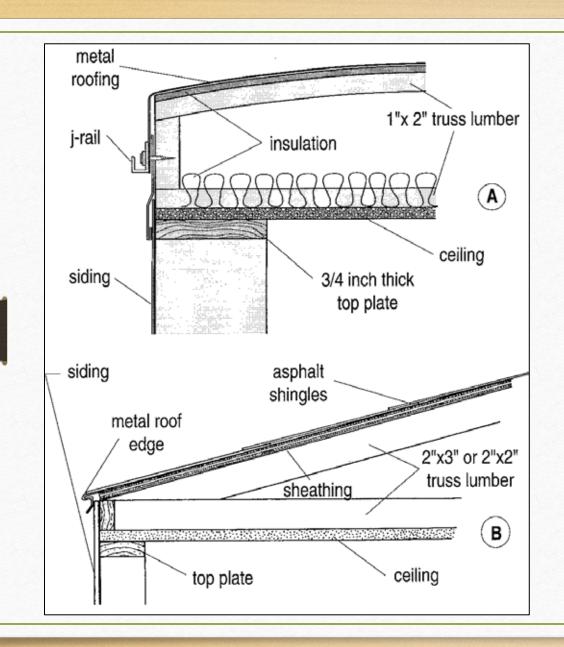
- FROM TOP of ROOF
- FROM EDGE of ROOF
- FROM INTERIOR
- FROM END















## WALL INSULATION



- Tubing
- Stuffing













# Belly's- Floors

- Patch
- Rim Joist
- End Joist
- From Underneath









## **BOTTOM LINE**

• IF THE DESIRE IS THERE, THE MATERIALS, TECHNIQUES, PROCEDURES, TOOLS AND TRAINING ARE AVAILABLE TO DO A COMPLETE WEATHERIZATION ON MOBULE HOMES.