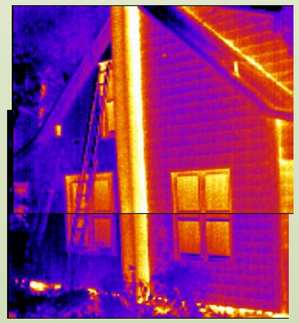
IMPROVE EAST & SOUTH WALLS

East Wall R values	As Is	Alt 1: replace ins w foam	Alt 2: add 2” foam board
		-0.50”	Adds 2”
15 mph wind	0.17	0.17	0.17
Vinyl siding	-	-	-
¼” Styrofoam	1.25	-	1.25
1” foam board	-	5.00	-
2” foam board (1” over 1”)	-	-	10.00
¾” wood siding	0.75	-	0.75
1” brown board sheathing	1.00	-	1.00
½” CDX	-	0.50	-
3 5/8” urethane foam	-	18.13	-
3 5/8” rock wool (but some has settled!)	13.84	-	13.84
½” gypsum	0.45	0.45	0.45
Still airspace inside	0.68	0.68	0.68
Total R	**18.14**	**24.9**	**28.1**
Cost	0		
South Wall R values	**As Is**	**Alt 1: replace ins w foam**	**Alt 2: add 2” foam board**
		Adds 0.75”	Adds 2”
15 mph wind	0.17	0.17	0.17
½” cedar	0.65	0.65	0.65
1” foam board	-	5.00	-
2” foam board (1” over 1”)	-	-	10.00
2 layers felt paper	0.12	-	0.12
¾” wood siding	0.75	-	0.75
½” CDX	-	0.50	-
3 5/8” urethane foam	-	18.13	-
2” fiberglass bat	7.60	-	7.60
3/8” plywood	0.47	0.47	0.47
¾” inside paneling	0.75	0.75	0.75
Still airspace inside	0.68	0.68	0.68
Total R	**11.2**	**26.35**	**21.2**
Cost (include cost of replacement cedar siding)	0		

(model from Kachadorian, p. 64)

East wall: R18 → R28



Infrared image at 6:40 AM on Sept 19, 2008, with wall retrofit in progress. Note (bright) heat leaks from dormer edge, chimney, basement and windows

South Wall Retrofit

South Wall:
R11 → R26

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