BUILDING FILE REPORT

File Name: OsharaModel.blg

Date: August 24, 2006

Property/Builder:	
Building Name:	Oshara House
Owner's Name:	
Prop. Address:	
City,St,Zip:	Santa Fe, NM
Phone No:	
Bldr's Name:	Oshara
Model:	Oshara w/ options
Development:	Oshara
Phone No:	

General Building Information	
Area of Cond. Space(sq ft):	2000
Floors on or Above-Grade:	1
Volume of Cond. Space:	16000
Number of Bedrooms:	3
Housing Type:	Single-family detached
Level Type(Apartments Only):	None
Foundation Type:	Slab
Enclosed Crawl Space Type:	N/A

Slab Floor Info:	1		
Name			
Library Type	R-5 Per. Radiant		
Area(sq ft)	2000		
Depth Below Grade(ft)	0.0		
Full Perimeter(ft)	180		
Exposed Perimeter(ft)	180		
On-Grade Perimeter(ft)	180		

Slab Floor: R-5 Per. Radiant	
Perimeter Insulation (R-Value):	5.0
Perimeter Insulation Depth (ft):	2.0
Under-Slab Insulation (R-Value):	0.0
Under-Slab Insulation Width (ft):	0.0
Radiant Slab:	Yes
Note:	

Above-Grade Wall:	1		
Name	From SI		
Library Type	R-28		
Gross Area(sq ft)	1440.00		
Exterior Color	Light		
Location	Cond -> ambient		
Uo Value	0.044		

Above-Grade Wall: R-28

Information From Quick Fill Screen:

Standard Wood Frame

Continuous Insulation (R-Value)	0.0
Frame Cavity Insulation (R-Value)	28.0
Frame Cavity Insulation Thickness (in)	7.5
Frame Cavity Insulation Grade	1
Stud Size (w x d, in)	1.5 x 7.5
Stud Spacing (in o.c.)	24.0
Framing Factor - (default)	0.1988
Gypsum Thickness (in)	0.5

Note:

Layers	Paths		
	Cavity	Framing	Grade
Inside Air Film	0.680	0.680	0.680
Gyp board	0.450	0.450	0.450
Air Gap/Frm	0.000	0.000	0.000
Cavity ins/Frm	28.000	9.375	1.030
Continuous ins	0.000	0.000	0.000
Ext Finish	0.940	0.940	0.940
	0.000	0.000	0.000
Outside Air Film	0.170	0.170	0.170
Total R-Value	30.240	11.615	3.270
U-Value	0.033	0.086	0.306
Relative Area	0.801	0.199	0.000
UA	0.026	0.017	0.000

Total Component UA: 0.044

Total Component Area: 1.0

Component Uo: 0.044

Window Information:	1	2	3
Name			
Library Type	Double/LoE - Wood	Double/LoE - Wood	Double/LoE - Wood
U-Value	0.390	0.390	0.390
SHGC	0.460	0.460	0.460
Area(sq ft)	140.00	33.00	33.00
Orientation	South	North	East
Overhang Depth	2.0	2.0	2.0
Overhang To Top	1.0	1.0	1.0
Overhang To Bottom	4.0	4.0	4.0
Interior Winter Shading	0.70	0.10	0.40
Interior Summer Shading	0.70	0.10	0.70
Adjacent Winter Shading	None	None	None
Adjacent Summer Shading	Most	None	Most
Wall Assignment	AGWall 1	AGWall 1	AGWall 1

Window Information:	4		
Name			
Library Type	Double/LoE - Wood		
U-Value	0.390		
SHGC	0.460		
Area(sq ft)	33.00		
Orientation	West		
Overhang Depth	2.0		
Overhang To Top	1.0		
Overhang To Bottom	4.0		
Interior Winter Shading	0.40		
Interior Summer Shading	0.70		
Adjacent Winter Shading	None		
Adjacent Summer Shading	Most		
Wall Assignment	AGWall 1		

Window: Double/LoE - Wood	
U-Value:	0.390
Solar Heat Gain Coefficient:	0.460
Note:	

Door Information:	1		
Name	AG Frame		
Opaque Area(sq ft)	40.0		
Library Type	1-3/4 Wd solid core		
Wall Assignment	AGWall 1		
Uo Value	0.329		

Door: 1-3/4 Wd solid core	
R-Value of Opaque Area:	2.1
Storm Door:	No
Note:	

Roof Information:	1		
Name	Attic		
Library Type	R-50 Blown, Attic		
Gross Area(sq ft)	2000.00		
Color	Light		
Radiant Barrier	Yes		
Type(Attic)	Attic		
Uo Value	0.020		

Ceiling: R-50 Blown, Attic

Information From Quick Fill Screen:

Continous Insulation (R-Value)	37.0
Cavity Insulation (R-Value)	13.0
Cavity Insulation Thickness (in)	3.5
Cavity Insulation Grade	1.0
Gypsum Thickness (in)	0.500
Bottom Chord/Rafter Size(w x h, in)	1.5 x 3.5
Bottom Chord/Rafter Spacing (in o.c.)	24.0
Framing Factor - (default)	0.1100
Ceiling Type	Attic

Note:

Layers	Paths	
	Framing	Cavity
Inside Air Film	0.610	0.610
Gyp board	0.450	0.450
Cavity Ins/Frm	4.375	13.000
Continuous ins	37.000	37.000
	0.000	0.000
	0.000	0.000
	0.000	0.000
Outside Air Film	0.610	0.610
Total R-Value	43.045	51.670
U-Value	0.023	0.019
Relative Area	0.110	0.890
UA	0.003	0.017

Total Component UA: 0.020

Total Component Area: 1.0

Component Uo: 0.020

Skylight Information:	1		
Name			
Library Type	Triple - Wood		
U-Value	0.390		
SHGC	0.530		
Area(sq ft)	8.0		
Winter Shading	None		
Summer Shading	None		
Orientation	North		
Pitch[?/12]	1		
Ceiling Assignment	Roof 1		

Window: Triple - Wood	
U-Value:	0.390
Solar Heat Gain Coefficient:	0.530
Note:	

Mechanical Equipment: General	
Number of Mechanical Systems:	3
Heating SetPoint(F):	70.00
Heating Setback Thermostat:	Present
Cooling SetPoint(F):	75.00
Cooling Setup Thermostat:	Present

Heat: 83AFUE Gas Boil 50k	
SystemType:	Fuel-fired hydronic distribution
Fuel Type:	Natural gas
Rated Output Capacity (kBtuh):	50.0
Seasonal Equipment Efficiency:	83.0 AFUE
Auxiliary Electric:	0 Eae
Note:	
Heater Location:	Conditioned area
Performance Adjustment:	75
Percent Load Served:	30
Number Of Units:	1

Heat: 55kBtuh Wood Stove	
SystemType:	Fuel-fired unit heater
Fuel Type:	Wood
Rated Output Capacity (kBtuh):	55.0
Seasonal Equipment Efficiency:	82.4 % EFF
Auxiliary Electric:	0 Eae
Note:	Based on Vermont Castings Defiant model, 82.4% claimed efficiency
Heater Location:	Conditioned area
Performance Adjustment:	75
Percent Load Served:	70
Number Of Units:	1

Water Heating Equipment: 40 gal. 0.62EF Gas	
Water Heater Type:	Conventional
Fuel Type:	Natural gas
Energy Factor:	0.62
Recovery Efficiency:	0.80
Water Tank Size (gallons):	40
Extra Tank Insulation (R-Value):	0.0
Note:	
Location:	Conditioned area
Percent Load Served:	100
Performance Adjustment:	100
Number Of Units:	1

Infiltration and Mechanical Ventilation	
Whole House Infiltration	
Measurement Type:	Blower door test
Heating Season Infiltration Value:	0.35 Natural ACH
Cooling Season Infiltration Value:	0.35 Natural ACH
Mechanical Ventilation for IAQ	
Type:	Exhaust Only
Rate(cfm):	150
Sensible Recovery Efficiency(%):	0.00
Total Recovery Efficiency(%):	0.00
Hours per Day:	2.00
Fan Power (watts):	26.00
Ventilation Strategy for Cooling	
Cooling Season Ventilation:	Natural Ventilation

Lights and Appliances

Detailed audit	
Light Fixture(s)	731.0 kWh/use; 1.0 Uses/Year; Standard
Light Fixture(s)	185.6 kWh/use; 1.0 Uses/Year; Standard
Refrigerator	409.0 kWh/use; 1.0 Uses/Year; Energy Star
Dishwasher	315.0 kWh/use; 1.0 Uses/Year; Energy Star
Dishwasher	5.0 Gallons/use; 296.0 Uses/Year; Standard
Ceiling Fan(s)	80.0 Watts; 176.2 Hours/Month; Standard
Oven/Range	547.5 kWh/use; 1.0 Uses/Year; Standard
Clothes Dryer	1200.0 kWh/use; 1.0 Uses/Year; Standard
Clothes Washer	243.0 kWh/use; 1.0 Uses/Year; Energy Star
Clothes Washer	8185.0 Gallons/use; 1.0 Uses/Year; Energy Star
Shower/Bath	20.0 Gallons/use; 730.0 Uses/Year; Standard
Plug Load(s)	2889.3 kWh/use; 1.0 Uses/Year; Standard

Added Mass: Drywall Thickness(in): 0.50

Added Mass Info:	1	2	
Name	Floor	Floor2	
Type	Concrete	Concrete	
Area(sq ft)	200.0	1800.0	
Thickness(in)	4.0	4.0	
Location	Sunlit floor	Shaded floor	

Active Solar

System Type:	DHW heating only
Loop Type:	Liquid, indirect
Type:	Double glazing, selective
Orientation:	South
Area(sq ft):	40.0
Tilt(degrees):	51.0
Volume(cu ft/gal):	80.0

Photovoltaic System

Collector Type:	Monocrystalline Silicon
Collector Orientation:	South
Collector Area(sq ft):	22.0
PV Panel Peak Power(Watts):	2000.0
Collector Tilt(degrees):	21.0
Inverter Efficiency(%):	90.0

Notes

The assumption for this model is that an Oshara homebuyer chooses to include all energy saving features options available from the developer. The modle also assumes "typical" Oshara construction assumptions as provided by the developer. Since the model is strictly hypothetical, Local Energy does not warrant that the energy use calculations based on these assumptions will actually be realized by any Oshara homeowner.

Single-story house
2000 sf
40'x50' Slab floor, R-5 perimeter insulation