

BUILDING FILE REPORT

File Name: fbdEden@9245WestviewRoadUVAV12confirmε

Date: June 29, 2010

Property/Builder:		Rating	
Building Name:	Eden	Org. Name:	Guaranteed Watt Saver Systems
Owner's Name:	Ferrier Custom Homes	Address:	6444 NW Expwy, Ste 836 A
Property Address:	9245 Westview Road	City, St, Zip:	Oklahoma City, OK 73132
City, St, Zip:	Fort Worth, TX 76176	Phone No:	405-946-0206
Phone No:		Website:	www.gwssi.com
Builder's Name:	Ferrier Custom Homes	Rater's Name:	Kelly Parker, P.E.
Phone No:	817-237-6262	Rater's Email:	info@gwssi.com
Email Address:		Rater's No.:	GWS-001
Model:		Rating Date:	Tuesday, August 18, 2009
Development:		Rating Type:	Confirmed Rating
		Reason:	New Home
		Rating No.:	gws 9695

General Building Information	
Area of Cond. Space(sq ft):	1051
Volume of Cond. Space:	16470
Year Built:	2009
Housing Type:	Single-family detached
Level Type(Apartments Only):	None
Floors on or Above-Grade:	1
Number of Bedrooms:	2
Foundation Type:	Slab
Enclosed Crawl Space Type:	N/A
Thermal Boundary Location:	REM Default

Slab Floor Info:	1		
Name			
Library Type		Uninsulated	
Area(sq ft)		1051	
Depth Below Grade(ft)		0.0	
Full Perimeter(ft)		159	
Exposed Perimeter(ft)		159	
On-Grade Perimeter(ft)		159	

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Slab Floor: Uninsulated

Slab Covering Carpet
Perimeter Insulation (R-Value): 0.0
Perimeter Insulation Depth (ft): 0.0
Under-Slab Insulation (R-Value): 0.0
Under-Slab Insulation Width (ft): 0.0
Slab Insulation Grade: 3
Radiant Slab: No

Note:

Above-Grade Wall:	1	2
Name	Ambient	Ambient
Library Type	R-30 SIP	R-30 SIP
Gross Area(sq ft)	911.00	655.00
Exterior Color	Medium	Medium
Location	Cond -> ambient	Cond -> ambient
Uo Value	0.030	0.030

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Above-Grade Wall: R-30 SIP

Information From Quick Fill Screen:

Structural Insulated Panel

Continuous Insulation (R-Value)	30.0
Frame Cavity Insulation (R-Value)	0.0
Frame Cavity Insulation Thickness (in)	0.0
Frame Cavity Insulation Grade	1
Stud Size (w x d, in)	0.0 x 0.0
Stud Spacing (in o.c.)	10.0
Framing Factor - (defined)	0.0562
Gypsum Thickness (in)	0.0

Note:

Layers	Paths
	Wall
Inside Air Film	0.680
Gyp board	0.000
OSB	0.570
EPS Foam Core	30.000
OSB	0.570
Ext Finish	0.940
	0.000
Outside Air Film	0.170
Total R-Value	32.930
U-Value	0.030
Relative Area	1.000
UA	0.030

Total Component UA: 0.030

Total Component Area: 1.0

Component Uo: 0.030

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Window Information:	1	2	3
Name			
Library Type	U .29 SHGC .15	U .29 SHGC .15	U .29 SHGC .15
U-Value	0.290	0.290	0.290
SHGC	0.150	0.150	0.150
Area(sq ft)	34.48	48.00	91.20
Orientation	South	South	East
Overhang Depth	0.0	28.7	0.0
Overhang To Top	0.0	1.0	0.0
Overhang To Bottom	0.0	9.0	0.0
Interior Winter Shading	0.85	0.85	0.85
Interior Summer Shading	0.70	0.70	0.70
Adjacent Winter Shading	None	None	None
Adjacent Summer Shading	None	None	None
Wall Assignment	AGWall 2	AGWall 1	AGWall 1

Window Information:	4	5
Name		
Library Type	U .29 SHGC .15	U .29 SHGC .15
U-Value	0.290	0.290
SHGC	0.150	0.150
Area(sq ft)	67.20	30.00
Orientation	West	West
Overhang Depth	12.0	0.0
Overhang To Top	1.0	0.0
Overhang To Bottom	6.6	0.0
Interior Winter Shading	0.85	0.85
Interior Summer Shading	0.70	0.70
Adjacent Winter Shading	None	None
Adjacent Summer Shading	Most	Most
Wall Assignment	AGWall 1	AGWall 2

Window: U .29 SHGC .15

U-Value: 0.290
 Solar Heat Gain Coefficient: 0.150
 Note:

Door Information:	1
Name	Ambient
Opaque Area(sq ft)	24.0
Library Type	Fiberglass-polysty
Wall Assignment	AGWall 1
Uo Value	0.124

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Door: Fiberglass-polysty

R-Value of Opaque Area: 7.1
Storm Door: No
Note:

Roof Information:

1

Name	
Library Type	R-50, Vaulted
Gross Area(sq ft)	1265.00
Color	Reflective
Radiant Barrier	No
Type(Attic)	Vaulted
Uo Value	0.022

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Ceiling: R-50, Vaulted

Information From Quick Fill Screen:

Continous Insulation (R-Value)	0.0
Cavity Insulation (R-Value)	50.0
Cavity Insulation Thickness (in)	9.0
Cavity Insulation Grade	1.0
Gypsum Thickness (in)	0.500
Bottom Chord/Rafter Size(w x h, in)	1.5 x 9.0
Bottom Chord/Rafter Spacing (in o.c.)	24.0
Framing Factor - (defined)	0.0645
Ceiling Type	Vaulted

Note:

Layers	Paths	
	Framing	Cavity
Inside Air Film	0.610	0.610
Gyp board	0.450	0.450
Cavity Ins/Frm	11.250	50.000
Continuous ins	0.000	0.000
Plywood	0.930	0.930
Shingles	0.400	0.400
	0.000	0.000
Outside Air Film	0.170	0.170
Total R-Value	13.810	52.560
U-Value	0.072	0.019
Relative Area	0.064	0.936
UA	0.005	0.018

Total Component UA: 0.022

Total Component Area: 1.0

Component Uo: 0.022

Mechanical Equipment: General

Number of Mechanical Systems:	2
Heating SetPoint(F):	70.00
Heating Setback Thermostat:	Present
Cooling SetPoint(F):	72.00
Cooling Setup Thermostat:	Present

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Water Heating Equipment: Tankless, 0.993EF

Water Heater Type:	Instant water heater
Fuel Type:	Electric
Energy Factor:	0.99
Recovery Efficiency:	0.00
Water Tank Size (gallons):	0
Extra Tank Insulation (R-Value):	0.0
Note:	
Location:	Attic
Percent Load Served:	100
Performance Adjustment:	100
Number Of Units:	1

ASHP: 24k17.5-8.5 Ferrier

Fuel Type:	Electric
Heating Seasonal Efficiency:	8.50 HSPF
Compressor Heating Output Capacity at 17F (kBtuh):	13.7
Compressor Heating Output Capacity at 47F (kBtuh):	22.6
Electric Resistance Backup Capacity (kW):	5
Cooling Output Capacity (kBtuh):	25.4
Cooling Seasonal Efficiency:	17.50 SEER
Desuperheater:	No
Note:	
Location:	Conditioned area
Performance Adjustment:	100
% Heating Load Served:	100
% Cooling Load Served:	100
Number Of Units:	1

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Duct System Information:

Name
Heating System 24k17.5-8.5 Ferrier
Cooling System 24k17.5-8.5 Ferrier
Supply Area(sq ft) 283.8
Return Area(sq ft) 52.5
of Registers 6
Duct Leakage
Qualitative Assessment - Not Applicable
Total Duct Leakage - Not Applicable
Supply Duct Leakage: 8.04 CFM per Std 152
Return Duct Leakage: 3.96 CFM per Std 152
Duct Tightness Test: Postconstruction Test

Duct Information:	1	2	
Type	Supply		Return
Percent Area	100.0		100.0
R-Value	5.0		5.0
Location	Conditioned space		Conditioned space

Infiltration and Mechanical Ventilation

Whole House Infiltration
Measurement Type: Blower door test
Heating Season Infiltration Value: 581 CFM @ 50 Pascals
Cooling Season Infiltration Value: 581 CFM @ 50 Pascals
2009 IECC Verification: Tested

Mechanical Ventilation for IAQ
Type: Air Cyclor
Rate(cfm): 99
Sensible Recovery Efficiency(%): 0.00
Total Recovery Efficiency(%): 0.00
Hours per Day: 8.00
Fan Power (watts): 14.80

Ventilation Strategy for Cooling
Cooling Season Ventilation: Natural Ventilation

Lights and Appliances

Simplified Audit
Oven/Range Fuel Type: Electric
Clothes Dryer Fuel Type: None
Percent Fluorescent - Pin-Based: 8.00

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Lights and Appliances

Percent Fluorescent - CFL:	92.00
Refrigerator KWh:	459
Dishwasher EF:	0.69
Ceiling Fan CFM / Watt:	0.00

Photovoltaic System

Collector Orientation:	South
Collector Area(sq ft):	166.0
PV Panel Peak Power(Watts):	2300.0
Collector Tilt(degrees):	33.0
Inverter Efficiency(%):	98.0

Notes

According to Architectural Energy: "We do not have a direct way to model the kWh from a wind turbine. Our recommendation is to do a wind analysis and determine the annual kWh that this turbine can produce in your area and then create a PV system that creates the same amount of kWh." GWS used the NREL calculator to determine the PV information entered into this report. It is equivalent to a 3290 KW/h/year wind turbine. This information was supplied by the wind turbine manufacturer as an average for the home in Fort Worth - based on a similar wind turbine only a few miles from the home site.