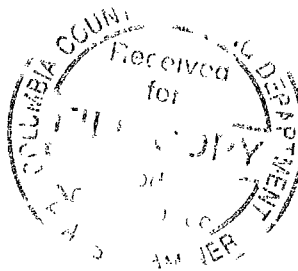


Florida Energy Efficiency Code For Building Construction

EnergyGauge Summit® Fla/Com-2010, Effective Date: March 15, 2012 -- Form 506-2010
Total Building Performance Method for Commercial Buildings

PROJECT SUMMARY

Short Desc: S&S ALF	Description: Assisted Living Facility - For
Owner: Smith & Sorensen Developers	
Address1: 6873 SW Hwy 27	City: Fort White
Address2:	State: FL
	Zip: 0
Type: Dormitory	Class: New Finished building
Jurisdiction: COLUMBIA COUNTY, COLUMBIA COUNTY, FL (221000)	
Conditioned Area: 8585 SF	Conditioned & UnConditioned Area: 8585 SF
No of Stories: 1	Area entered from Plans 8586 SF
Permit No: 0	Max Tonnage 5
	If different, write in: _____



R. M. Smith
P.E. 20488
8/25/2014

Compliance Summary			
Component	Design	Criteria	Result
Gross Energy Cost (in \$)	14,860.0	17,026.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			None Entered
HVAC SYSTEM			PASSES
PLANT			None Entered
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			None Entered
Met all required compliance from Check List?			Yes/No/NA
 IMPORTANT MESSAGE Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report			

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: R.E. Giro, P.E. #20488

Building Official: _____

Date: 8/25/2014

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: Smith & Sorensen Developers

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: N.P. Geisler

Reg No: AR 7015

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals.

Project: S&S ALF
Title: Assisted Living Facility - Fort White
Type: Dormitory
(WEA File: FL_JACKSONVILLE_INTL_ARPT.fm3)

Building End Uses

	1) Proposed	2) Baseline
Total	937.40	1,342.60
	\$14,860	\$21,282
ELECTRICITY(MBtu/kWh/\$)	937.40	1,342.60
	274681	393391
	\$14,860	\$21,282
AREA LIGHTS	62.30	76.70
	18252	22474
	\$987	\$1,216
MISC EQUIPMT	32.40	32.40
	9494	9494
	\$514	\$514
PUMPS & MISC	0.10	0.10
	40	40
	\$2	\$2
SPACE COOL	0.10	0.70
	27	200
	\$1	\$11
SPACE HEAT	42.50	45.20
	12465	13254
	\$674	\$717
VENT FANS	800.00	1,187.50
	234403	347929
	\$12,681	\$18,823

Credits Applied: None

Passing Criteria = 17026

Design (including any credits) = 14860

Passing requires Proposed Building cost to be at most 80% of Baseline cost. This Proposed Building is at 69.8%

PASSES

External Lighting Compliance						
Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
None						

Project: S&S ALF Title: Assisted Living Facility - Fort White Type: Dormitory (WEA File: FL JACKSONVILLE INTL_ARPT.tm3)						
Lighting Controls Compliance						
Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
Pr0Zo1Sp1	5	Corridor	3,509	2	2	PASSES
Pr0Zo2Sp1	7,001	Dormitory Living Quarters	254	1	1	PASSES
PASSES						

Project: S&S ALF
Title: Assisted Living Facility - Fort White
Type: Dormitory
(WEA File: FL JACKSONVILLE INTL ARPT.tm3)

System Report Compliance

Pr0Sy1 System 1

Constant Volume Air Cooled
Split System < 65000 Btu/hr

No. of Units
1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity		14.50	12.23	8.00		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity		8.00	7.70			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume		0.80	0.82			PASSES
Air Distribution System (Sup)	ADS System (Sup)		6.00				PASSES
Air Distribution System (Ret)	ADS System (Ret)		6.00				PASSES

Pr0Sy2 System 2

Through the wall
AirConditioner Single
Package

No. of Units
20

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Thru the Wall A/C < 30,000 Btu/h Single Package		14.50	12.00			PASSES
Heating System	Heat Pumps Thru the Wall HP (Heating Mode) < 30,000 Btu/h Single Pkg		8.00	7.40			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume		0.80	0.82			PASSES

PASSES

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
								None

Project: S&S ALF
 Title: Assisted Living Facility - Fort White
 Type: Dormitory
 (WEA File: FL JACKSONVILLE INTL ARPT.tm3)

Water Heater Compliance							
Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	0.92	0.90			PASSES
							PASSES

Piping System Compliance							
Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
							None

Project: S&S ALF

Title: Assisted Living Facility - Fort White

Type: Dormitory

(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Report	506.4.2	Input Report Print-Out from EnergyGauge FlaCom attached <i>7.6.00</i>	☒
Operations Manual	303.3.1, 503.2.9.3, 505.7.4.2	Operations manual provided to owner	☐
Windows & Doors	502.3.2	Glazed swinging entrance & revolving doors: max. 1.0 cfm/ft ² ; all other products: 0.3 cfm/ft ²	☐
Joints/Cracks	502.3.3	To be caulked, gasketed, weather-stripped or otherwise sealed	☐
Dropped Ceiling Cavity	502.3	Vented: seal & insulated ceiling. Unvented seal & insulate roof & side walls	☐
HVAC Efficiency	503.2.3	Minimum efficiencies: Tables 503.2.3(1)-(8)	☐
HVAC Controls	503.2.4	Zone controls prevent reheat (exceptions); separate thermostatic control per zone;	☐
Ventilation	503.2.5	Outdoor air supply & exhaust ducts shall have dampers that automatically shut when systems or spaces served are not in use. Exhaust air energy recovery required for cooling systems (Exceptions).	☐
ADS	503.2.7.5	Duct sizing and Design have been performed	☐
HVAC Ducts	503.2.7	Air ducts, fittings, mechanical equipment & plenum chambers shall be mechanically attached, sealed, insulated & installed per Table 503.2.7.2. Fan power limitations.	☐
Balancing	503.2.9.1	HVAC distribution system(s) tested & balanced. Report in construction documents.	☐
Piping Insulation	503.2.8	HAC and service hot water. In accordance with Table 503.2.8.	☐
Water Heaters	504	Performance requirements in accordance with Table 504.2. Heat trap required.	☐
Swimming Pools	504.7	Vapor-retardant or liquid cover or other means proven to reduce heat loss on heated pools; Time switch (exceptions); readily accessible on/off switch.	☐
Motors	505.7.5	Motor efficiency criteria have been met	☐
Lighting Controls	505.2, 502.3	Automatic control required for interior lighting in buildings >5,000 s.f.; Space control; Exterior photo sensor; Tandom wiring with 1 or 3 linear fluorescent lamps>30W	☐

Project Component List and ERROR (if any) Log : 8/25/2014 1:40:45 PM
Project : S&S ALF Assisted Living Facility - Fort White

Zone Order: OK
Zone: Pr0Zo1 OK
OK
Space: Pr0Zo1Sp1 OK
Wall: Pr0Zo1Wa1 OK
Door: Pr0Zo1Wa1Dr1 OK
Wall: Pr0Zo1Wa2 OK
Door: Pr0Zo1Wa2Dr1 OK
Wall: Pr0Zo1Wa3 OK
Door: Pr0Zo1Wa3Dr1 OK
Wall: Pr0Zo1Wa4 OK
Door: Pr0Zo1Wa4Dr1 OK
Roof: Pr0Zo1Rf1 OK
Floor: Pr0Zo1Fl1 OK
Zone: Pr0Zo2 OK
OK
Space: Pr0Zo2Sp1 OK
Wall: Pr0Zo2Wa1 OK
Window: Pr0Zo2Wa1Wil OK
Roof: Pr0Zo2Rf1 OK
Floor: Pr0Zo2Fl1 OK
System: Pr0Sy1 OK
System: Pr0Sy2 OK

End Error Log

Error(s) in Project: False

EnergyGauge Summit® v4.10
INPUT DATA REPORT

Project Information

Project Name: S&S ALF Orientation: South
Project Title: Assisted Living Facility - Fort White Building Type: Dormitory
Address: 6873 SW Hwy 27 Building Classification: New Finished building

State: FL No. of Stories: 1
Zip: 0 GrossArea: 8585 SF

Owner: Smith & Sorensen Developers

Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]
1	Pr0Zo1	Zone 1	CONDITIONED	3509.1	1	3509.1
2	Pr0Zo2	Zone 2	CONDITIONED	253.8	20	5076.0

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multi plier	Total Area [sf]	Total Volume [cf]
In Zone: Pr0Zo1									
1	Pr0Zo1Sp1	Zo0Sp1	Corridor	126.00	27.85	8.00	1	3509.1	28072.8
In Zone: Pr0Zo2									
1	Pr0Zo2Sp1	Zo0Sp1	Dormitory Living Quarters	18.00	14.10	8.00	1	253.8	2030.4

Lighting

No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No. of Ctrl pts
In Zone: Pr0Zo1							
In Space: Pr0Zo1Sp1							
1	Recessed Fluorescent - No vent	General Lighting	16	80	1280	Manual On/Off	1
2	Compact Fluorescent	General Lighting	24	45	1080	Manual On/Off	1
In Zone: Pr0Zo2							
In Space: Pr0Zo2Sp1							
1	Compact Fluorescent	General Lighting	4	45	180	Manual On/Off	1

Walls

No	Description	Type	Width H (Effec) [ft]	Multi plier	Area [sf]	Direction	Conductance [Btu/hr. sf. F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.s.f.F/Btu]
In Zone: Pr0Zo1										
1	Pr0Zo1Wal	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	116.70	8.00	1	South	0.8350	2.500	100.00	1.2

2	Pr0Zo1Wa2	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	12.50	8.00	1	100.0	West	0.8350	2.500	100.00	1.2	☐
3	Interior East Corridor Wall	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	16.50	8.00	1	132.0	East	0.8350	2.500	100.00	1.2	☐
4	North Interior Corridor Wall	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	116.70	8.00	1	933.6	North	0.8350	2.500	100.00	1.2	☐
In Zone: Pr0Zo2												
1	Exterior Wall	0.75 in. stucco, 2x4x16" oc, R11 Batt, 0.5 in. gyp	14.00	8.00	1	112.0	West	0.1118	1.183	14.94	8.9	☐

Windows

No	Description	Type	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]	
In Zone: Pr0Zo2											
In Wall: Pr0Zo2Wal											
1	Pr0Zo2WalW1	User Defined	Yes	0.4500	0.34	0.21	2.00	5.00	1	10.0	☐

Doors

No	Description	Type	Shaded?	Width [ft]	H (Effect) [ft]	Multiplier	Area [sf]	Cond. [Btu/hr. sf. F]	Dens. [lb/cf]	Heat Cap. [Btu/sf. F]	R-Value [h.s.f.F/Btu]
In Zone: Pr0Zo1											
In Wall: 1	Pr0Zo1Wa1 Front Door	Fiberglass/Mineral wool core	No	3.50	6.70	1	23.5	1.2244	0.00	0.00	0.82
In Wall: 1	Pr0Zo1Wa2 Pr0Zo1Wa2Dr1	Solid core flush (2.25)	No	3.50	6.70	1	23.5	0.3504	0.00	0.00	2.85
In Wall: 1	Pr0Zo1Wa3 Pr0Zo1Wa3Dr1	Solid core flush (2.25)	No	3.50	6.70	1	23.5	0.3504	0.00	0.00	2.85
In Wall:	Pr0Zo1Wa4										

1	Pr0Zo1Wa4Dr1	Solid core flush (2.25)	No	3.50	6.70	2	23.5	0.3504	0.00	2.85	☐
---	--------------	----------------------------	----	------	------	---	------	--------	------	------	--------------------------

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Tilt [deg]	Cond. [Btu/hr. Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.s.f.F/Btu]
In Zone: Pr0Zo1											
1	Pr0Zo1Rf1	Shngl/1/2"WD Deck/WD Truss/9" Batt/Gyp Brd	126.00	27.85	1	3509.1	0.00	0.0320	1.50	8.22	31.2
In Zone: Pr0Zo2											
1	Pr0Zo2Rf1	Shngl/1/2"WD Deck/WD Truss/9" Batt/Gyp Brd	18.00	14.10	1	253.8	0.00	0.0320	1.50	8.22	31.2

Skylights

No	Description	Type	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multiplier	Area [Sf]	Total Area [Sf]
In Zone: In Roof:										
☐										

Floors

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.s.f.F/Btu]
In Zone: Pr0Zo1										
1	Pr0Zo1F11	1 ft. soil, concrete floor, carpet and rubber pad	126.00	27.85	1	3509.1	0.2681	34.00	113.33	3.73
In Zone: Pr0Zo2										
☐										

1	Pr0Zc2F11	1 ft. soil, concrete floor, carpet and rubber pad	14.10	18.00	1	253.8	0.2681	34.00	113.33	3.73	☐
---	-----------	---	-------	-------	---	-------	--------	-------	--------	------	--------------------------

Systems

Pr0Sy1	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units	1
Component	Category	Capacity	Efficiency	IPLV
1	Cooling System	60000.00	14.50	8.00
2	Heating System	60000.00	8.00	☐
3	Air Handling System -Supply	2000.00	0.80	☐
4	Air Distribution System (Sup)		6.00	☐
5	Air Distribution System (Ret)		6.00	☐

Pr0Sy2	System 2	Through the wall AirConditioner Single Package	No. Of Units	20
Component	Category	Capacity	Efficiency	IPLV
1	Cooling System	12000.00	14.50	☐
2	Heating System	12000.00	8.00	☐
3	Air Handling System -Supply	800.00	0.80	☐

Plant

Equipment	Category	Size	Inst.No	Eff.	IPLV
					☐

Water Heaters

W-Heater Description	CapacityCap.Unit	I/P Rt.	Efficiency	Loss
1 Electric water heater	50 [Gal]	[kW]	0.9200 [Ef]	[Btu/h]
				☐

Ext-Lighting

Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type	Wattage [W]

Piping

No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?

Fenestration Used

Name	Glass Type	No. of Panels	Glass Conductance [Btu/h.sf.F]	SHGC	VLt
ASHUL Tp/TotW d-Vy-Fg frm	User Defined	3	0.4500	0.3400	0.2100

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RV Value [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [lb/cf]	Specific Heat [Btu/lb.F]
187	Mat1187	GYP OR PLAS BOARD, 1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000
178	Mat1178	CARPET W/RUBBER PAD	Yes	1.2300				
265	Mat1265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000
48	Mat148	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000

57	Matl57	3/4 in. Plaster or gypsum	No	0.1488	0.0625	0.4200	100.00	0.2000	☐
72	Matl72	AIR LAYER, 3/4IN OR LESS, VERT. WALLS	Yes	0.9000					☐
267	Matl267	0.75" stucco	No	0.1563	0.0625	0.4000	16.00	0.2000	☐
266	Matl266	2x4@16" oc + R11 Batt	No	8.3343	0.2917	0.0350	9.70	0.2000	☐
12	Matl12	3 in. Insulation	No	10.0000	0.2500	0.0250	2.00	0.2000	☐
23	Matl23	6 in. Insulation	No	20.0000	0.5000	0.0250	5.70	0.2000	☐
81	Matl81	ASPHALT-ROOFING, ROLL	Yes	0.1500					☐
244	Matl244	PLYWOOD, 1/2IN	No	0.6318	0.0417	0.0660	34.00	0.2900	☐

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]
1008	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	No	No	0.83	2.50	100.00	1.2

Layer	Material No.	Material	Thickness [ft]	Framing Factor
1	57	3/4 in. Plaster or gypsum	0.0625	0.000
2	72	AIR LAYER, 3/4IN OR LESS, VERT. WALLS		0.000
3	57	3/4 in. Plaster or gypsum	0.0625	0.000

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]
1009	0.75 in. stucco, 2x4x16" oc, R11 Batt, 0.5 in. gyp	No	No	0.11	1.18	14.94	8.9

Layer	Material No.	Material	Thickness [ft]	Framing Factor
1	267	0.75" stucco	0.0625	0.000
2	266	2x4@16" oc + R11 Batt	0.2917	0.000
3	187	GYP OR PLAS BOARD, 1/2IN	0.0417	0.000

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.s.f.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.s.f.F/Btu]
1029	Fiberglass/Mineral wool core	No	Yes	1.22			0.8
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	280	Fiberglass/Mineral wool core		0.000			
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.s.f.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.s.f.F/Btu]
1038	Shngl/1/2"WD Deck/WD Truss/9" Batt/Gyp Brd	No	No	0.03	1.50	8.22	31.2
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	81	ASPHALT-ROOFING, ROLL		0.000			
2	244	PLYWOOD, 1/2IN	0.0417	0.000			
3	12	3 in. Insulation	0.2500	0.000			
4	23	6 in. Insulation	0.5000	0.000			
5	187	GYP OR PLAS BOARD, 1/2IN	0.0417	0.000			
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.s.f.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.s.f.F/Btu]
1057	1 ft. soil, concrete floor, carpet and rubber pad	No	No	0.27	34.00	113.33	3.7
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	265	Soil, 1 ft	1.0000	0.000			
2	48	6 in. Heavyweight concrete	0.5000	0.000			
3	178	CARPET W/RUBBER PAD		0.000			

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]
1058	Solid core flush (2.25)	No	Yes	0.35			2.9
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	279	Solid core flush (2.25")		0.000			
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]
1059	Partition wall, 0.75 in. gyp, airspace, 0.75 in. gyp	No	No	0.83	2.50	100.00	1.2
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	57	3/4 in. Plaster or gypsum	0.0625	0.000			
2	72	AIR LAYER, 3/4IN OR LESS, VERT. WALLS		0.000			
3	57	3/4 in. Plaster or gypsum	0.0625	0.000			