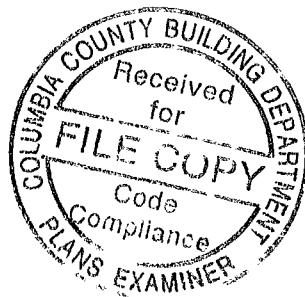


Florida Energy Efficiency Code For Building Construction

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

PROJECT SUMMARY

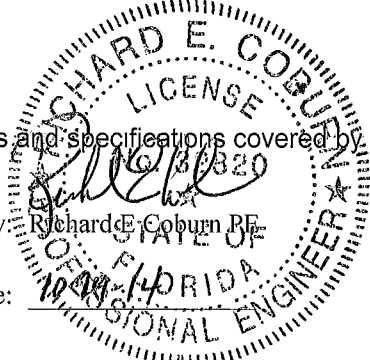
Short Desc: 1412	Description: Wendys
Owner: WEN-ONE of Florida	
Address1: Enter Address here	City: Lake City
Address2: Enter Address here	State: FL
	Zip: 0
Type: Dining, Cafeteria/Fast Food	Class: New Finished building
Jurisdiction: COLUMBIA COUNTY, COLUMBIA COUNTY, FL (221000)	
Conditioned Area: 3396 SF	Conditioned & UnConditioned Area: 3396 SF
No of Stories: 1	Area entered from Plans: 3400 SF
Permit No: 0	Max Tonnage: 9.8
	If different, write in: _____



Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	2,862.0	2,941.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			PASSES
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: Richard E. Coburn PE

Building Official: _____

Date: 10/29/14

Date: _____

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

Owner Agent: _____

Date: _____

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

Architect: _____

Reg No: _____

Electrical Designer: Richard E Coburn PE

Reg No: E32820

Lighting Designer: Richard E Coburn PE

Reg No: E32820

Mechanical Designer: Richard E Coburn PE

Reg No: E32820

Plumbing Designer: Richard E Coburn PE

Reg No: _____

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

Project: 1412
 Title: Wendys
 Type: Dining: Cafeteria/Fast Food
 (WEA File: FL JACKSONVILLE INTL ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>177.80</i>	<i>229.90</i>
	<i>\$2,862</i>	<i>\$3,676</i>
ELECTRICITY(MBtu/kWh/\$)	177.80	229.90
	52126	67324
	<i>\$2,862</i>	<i>\$3,676</i>
AREA LIGHTS	21.70	35.60
	6367	10420
	<i>\$350</i>	<i>\$569</i>
MISC EQUIPMT	27.40	27.40
	8035	8035
	<i>\$441</i>	<i>\$439</i>
PUMPS & MISC	0.30	0.30
	95	75
	<i>\$5</i>	<i>\$4</i>
SPACE COOL	68.20	78.00
	19976	22848
	<i>\$1,097</i>	<i>\$1,248</i>
SPACE HEAT	21.10	24.30
	6191	7116
	<i>\$340</i>	<i>\$389</i>
VENT FANS	39.10	64.30
	11462	18830
	<i>\$629</i>	<i>\$1,028</i>

Credits Applied: None

Passing Criteria = 2941

Design (including any credits) = 2862

Passing requires Proposed Building cost to be at most 80% of Baseline cost. This Proposed Building is at 77.9%

PASSES

Project: 1412

Title: Wendys

Type: Dining: Cafeteria/Fast Food

(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 1	Uncovered Parking Areas -- Parking lots and Drives	Yes	0.15	33,000.0	4,950	1,500
Ext Light 3	Canopies (freestanding, attached and Overhangs)	Yes	1.25	520.0	650	396

Tradable Surfaces: 1896 (W) Allowance for Tradable: 4466 (W)

PASSES

All External Lighting: 1896 (W)

Compliance check includes a excess/Base allowance of 750.00(W)

Project: 1412

Title: Wendys

Type: Dining: Cafeteria/Fast Food

(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
1-1	7	Food Service - Kitchen	794	1	1	PASSES
1-2	1	Electrical Mechanical Equipment Room - General	48	1	1	PASSES
1-3	17	Office - Enclosed	64	1	1	PASSES
1-4	7	Food Service - Kitchen	288	1	1	PASSES
2-1	8	Food Service - Leisure Dining	904	1	1	PASSES
2-2	8	Food Service - Leisure Dining	903	1	1	PASSES
2-3	8	Food Service - Leisure Dining	102	1	1	PASSES
2-4	6	Toilet and Washroom	131	1	1	PASSES
2-5	6	Toilet and Washroom	111	1	1	PASSES
2-6	5	Corridor	51	1	1	PASSES

PASSES

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

Project: 1412
 Title: Wendys
 Type: Dining: Cafeteria/Fast Food
 (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]				293.4	PASSES	
								PASSES

Project: 1412
 Title: Wendys
 Type: Dining: Cafeteria/Fast Food
 (WEA File: FL JACKSONVILLE INTL ARPT.tm3)

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	
Domestic and Service Hot Water Systems	0.75	False	105 00	0.28	0.75	0.50	PASSES	
								PASSES

Project: 1412
Title: Wendys
Type: Dining: Cafeteria/Fast Food
(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	<input type="checkbox"/>
Operations Manual	303.3.1, 503.2.9.3, 505 7.4.2	Operations manual provided to owner	<input type="checkbox"/>
Windows & Doors	502 3.2	Glazed swinging entrance & revolving doors: max. 1.0 cfm/ft ² ; all other products: 0.3 cfm/ft ²	<input type="checkbox"/>
Joints/Cracks	502.3.3	To be caulked, gasketed, weather-stripped or otherwise sealed	<input type="checkbox"/>
Dropped Ceiling Cavity	502.3	Vented: seal & insulated ceiling. Unvented seal & insulate roof & side walls	<input type="checkbox"/>
HVAC Efficiency	503.2.3	Minimum efficiencies: Tables 503.2.3(1)-(8)	<input type="checkbox"/>
HVAC Controls	503.2.4	Zone controls prevent reheat (exceptions); separate thermostatic control per zone;	<input type="checkbox"/>
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).	<input type="checkbox"/>
ADS	503.2.7.5	Duct sizing and Design have been performed	<input type="checkbox"/>
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.	<input type="checkbox"/>
Balancing	503.2.9.1	HVAC distribution system(s) tested & balanced. Report in construction documents.	<input type="checkbox"/>
Piping Insulation	503.2 8	HAC and service hot water. In accordance with Table 503.2 8.	<input type="checkbox"/>
Water Heaters	504	Performance requirements in accordance with Table 504.2. Heat trap required.	<input type="checkbox"/>
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.	<input type="checkbox"/>
Motors	505.7.5	Motor efficiency criteria have been met	<input type="checkbox"/>
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	<input type="checkbox"/>

Spaces

No Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multi plier	Total Area [sf]	Total Volume [cf]
In Zone: RTU1								
1 1-1	COOKING	Food Service - Kitchen	33.10	24.00	10.00	1	794.4	7944.0
2 1-2	ZooSp2	Electrical Mechanical Equipment Room - General	8.00	6.00	10.00	1	48.0	480.0
3 1-3	OFFICE	Office - Enclosed	8.00	8.00	9.00	1	64.0	576.0
4 1-4	SERVING	Food Service - Kitchen	24.00	12.00	9.00	1	288.0	2592.0
In Zone: RTU2								
1 2-1	WIFI AREA	Food Service - Leisure Dining	45.20	20.00	10.00	1	904.0	9040.0
2 2-2	DINING	Food Service - Leisure Dining	30.10	30.00	10.00	1	903.0	9030.0
3 2-3	DRINK LINE	Food Service - Leisure Dining	10.20	10.00	9.00	1	102.0	918.0
4 2-4	WOMENS ROOM	Toilet and Washroom	10.00	13.10	9.00	1	131.0	1179.0
5 2-5	MENS ROOM	Toilet and Washroom	10.00	11.10	9.00	1	111.0	999.0
6 2-6	CORRIDOR	Corridor	10.00	5.10	9.00	1	51.0	459.0

Lighting

No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No. of Ctrl pts
In Zone: RTU1							
In Space: 1-1							
1	Recessed Fluorescent - No vent	General Lighting	12	64	768	Manual On/Off	1
In Space: 1-2							
1	Recessed Fluorescent - No vent	General Lighting	1	64	64	Manual On/Off	1
In Space: 1-3							

1	Recessed Fluorescent - No vent	General Lighting	1	64	64	Manual On/Off	1	<input type="checkbox"/>
In Space: 1-4		General Lighting	13	13	169	Manual On/Off	1	<input type="checkbox"/>
In Zone: RTU2		General Lighting	15	13	195	Manual On/Off	1	<input type="checkbox"/>
In Space: 2-1		General Lighting	50	13	650	Manual On/Off	1	<input type="checkbox"/>
In Space: 2-2		General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
In Space: 2-3		General Lighting	5	13	65	Manual On/Off	1	<input type="checkbox"/>
In Space: 2-4		General Lighting	4	13	52	Manual On/Off	1	<input type="checkbox"/>
In Space: 2-5		General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
In Space: 2-6		General Lighting	13	26	Manual On/Off	1	<input type="checkbox"/>	

Walls

No	Description	Type	Width [ft]	H (Eftce) [ft]	Multi piler	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: RTU1												
1	Pr0Zo1Wal	4" Brick /2x4@16" oc+R11Batt/0.5" Gyp	20.74	13.50	1	280.0	North	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
2	Pr0Zo1Wal	4" Brick /2x4@16" oc+R11Batt/0.5" Gyp	4.30	13.50	1	58.1	East	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
3	Pr0Zo1Wal	4" Brick /2x4@16" oc+R11Batt/0.5" Gyp	49.30	13.50	1	665.6	South	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
4	Pr0Zo1Wal	4" Brick /2x4@16" oc+R11Batt/0.5" Gyp	38.90	13.50	1	525.2	West	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
In Zone: RTU2												

1	Pr0Z01Wal	4" Brick /2x4@16" oc+R11Batf/0.5" Gyp	62.16	16.00	1	994.6	North	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
2	Pr0Z01Wal	4" Brick /2x4@16" oc+R11Batf/0.5" Gyp	46.50	13.50	1	627.8	East	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
3	Pr0Z01Wal	4" Brick /2x4@16" oc+R11Batf/0.5" Gyp	36.50	13.50	1	492.8	South	0.1043	8.982	67.36	9.6	<input type="checkbox"/>
4	Pr0Z01Wal	4" Brick /2x4@16" oc+R11Batf/0.5" Gyp	3.00	13.50	1	40.5	West	0.1043	8.982	67.36	9.6	<input type="checkbox"/>

Windows

No	Description	Type	Shaded	U [Btu/hr sf F]	SHGC	Vis-Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]	R-Value	<input type="checkbox"/>
In Zone: RTU2												
In Wall: E WALL												
1	Pr0Z02Wa2Wt1	User Defined	No	0.2700	0.29	0.54	9.33	6.33	1	59.1		<input type="checkbox"/>
2	EAST GLASS 2	User Defined	No	0.2700	0.29	0.54	4.00	6.25	5	125.0		<input type="checkbox"/>
In Wall: N WALL												
1	EAST GLASS 2	User Defined	No	0.2700	0.29	0.54	4.00	6.25	2	50.0		<input type="checkbox"/>
2	EAST GLASS 2	User Defined	No	0.2700	0.29	0.54	4.50	14.80	1	66.6		<input type="checkbox"/>
In Wall: S WALL												
2	EAST GLASS 2	User Defined	No	0.2700	0.29	0.54	4.00	6.25	3	75.0		<input type="checkbox"/>
3	EAST GLASS 2	User Defined	No	0.2700	0.29	0.54	2.75	8.50	1	23.4		<input type="checkbox"/>

Doors

No	Description	Type	Shaded?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Dens. [lb/cf]	Heat Cap. [Btu/sf. F]	R-Value [h.sf.F/Btu]	<input type="checkbox"/>
In Zone:												
In Wall:												

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Tilt [deg]	Cond. [Btu/hr. Sf. Ft]	Heat Cap [Btu/sf. Ft]	Dens. [lb/cf]	R-Value [h.s.f./Btu]	
In Zone: RTU1												
1	Pr0Zo1Rf1	Sngl Ply/2" Iso/2" Conc/Mtl Deck	16.65	100.00	1	1665.0	0.00	0.1372	4.74	71.00	7.3	
In Zone: RTU2												
1	Pr0Zo2Rf1	Sngl Ply/2" Iso/2" Conc/Mtl Deck	11.93	100.00	1	1193.0	0.00	0.1372	4.74	71.00	7.3	

Skylights

No	Description	Type	U [Btu/hr sf Ft]	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. Ft]	Heat Cap. [Btu/sf. Ft]	Dens. [lb/cf]	R-Value [h.s.f./Btu]
In Zone: RTU1										
1	Pr0Zo1F11	1 ft. soil, concrete floor, carpet and rubber pad	1665.00	1.00	1	1665.0	0.2681	34.00	113.33	3.73
In Zone: RTU2										
1	Pr0Zo2F11	1 ft. soil, concrete floor, carpet and rubber pad	1193.00	1.00	1	1193.0	0.2681	34.00	113.33	3.73

Systems

RTU 1		System 1		Constant Volume Packaged System--902		No. Of Units 1	
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	117320.00	11.20	13.20	<input type="checkbox"/>		
2	Heating System	76800.00	1.00		<input type="checkbox"/>		
3	Air Handling System -Supply	4000.00	0.68		<input type="checkbox"/>		
4	Air Distribution System (Sup)		6.00		<input type="checkbox"/>		
5	Air Distribution System (Ret)		6.00		<input type="checkbox"/>		
RTU 2		System 1		Constant Volume Packaged System--902		No. Of Units 1	
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	109450.00	11.20	13.20	<input type="checkbox"/>		
2	Heating System	76800.00	1.00		<input type="checkbox"/>		
3	Air Handling System -Supply	4000.00	0.68		<input type="checkbox"/>		
4	Air Distribution System (Sup)		6.00		<input type="checkbox"/>		
5	Air Distribution System (Ret)		6.00		<input type="checkbox"/>		

Plant

Equipment	Category	Size	Inst.No	Eff.	IPLV
					<input type="checkbox"/>

Water Heaters

W-Heater Description	Capacity, Cap. Unit	I/P Rt.	Efficiency	Loss
1 Electric water heater	80 [Gal]	18 [kW]	[E]	[Btu/h] <input type="checkbox"/>

Ext-Lighting

Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type	Wattage [W]
1 Ext Light 1	Uncovered Parking Areas -- Parking lots and Drives	6	250	33000.00	Photo Sensor control	1500.00 <input type="checkbox"/>
2 Ext Light 3	Canopies (freestanding, attached and Overhangs)	22	18	520.00	Photo Sensor control	396.00 <input type="checkbox"/>

Piping

No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?
1	Domestic and Service Hot Water Systems	105.00	0.28	0.75	0.75	No <input type="checkbox"/>

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT
PPG SOLAR BAN	User Defined	1	0.2700	0.2900	0.5400 <input type="checkbox"/>

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [lb/cf]	SpecificHeat [Btu/lb.F]
187	Mat1187	GYP OR PLAS BOARD, 1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000 <input type="checkbox"/>

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1061	Sngl Ply/2" Iso/2" Conc/Mtl Deck	No	No	0.14	4.74	71.00	7.3	<input type="checkbox"/>
	Layer			Thickness [ft]	Framing Factor			
	Material No.							
	Material							
	1	82	ASPHALT-SHINGLE AND SIDING		0.000			<input type="checkbox"/>
	2	11	2 in. Insulation	0.1670	0.000			<input type="checkbox"/>
	3	47	2 in. Heavyweight concrete	0.1670	0.000			<input type="checkbox"/>