

20

Florida Energy Efficiency Code For Building Construction

Florida Department of Community Affairs

EnergyGauge Summit® Fla/Com-2008, Effective: March 1, 2009 -- Form 400A-2008

Method A: Whole Building Performance Method for Commercial Buildings

PROJECT SUMMARY

Short Desc: Clay Electric Coop

Owner: Clay Electric Cooperative

Address1: 1659 SW SR 47

Address2:

Type: Office

Jurisdiction: COLUMBIA COUNTY, COLUMBIA COUNTY, FL (221000)

Conditioned Area: 7023 SF

No of Stories: 1

Permit No: 0

Description: Clay Electric Coopertive Lak

City: Lake City

State: FL

Zip: 32025

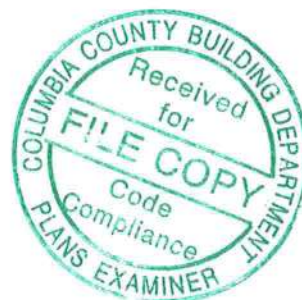
Class: New Finished building

Conditioned & UnConditioned Area: 9091 SF

Area entered from Plans 9091 SF

Max Tonnage 8.8

If different, write in: _____



CERTIFICATIONS

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

Prepared By:  GEORGE LEBO

Building Official: _____

Date: 3/5/12

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: WILLIAM BRAME

Reg No: AR-0007024

Electrical Designer: MARK AKIN

Reg No: PE-0059242

Lighting Designer: MARK AKIN

Reg No: PE-0059242

Mechanical Designer: GEORGE LEBO

Reg No: PE-0038709

Plumbing Designer: SRIKANTH SUNKARI

Reg No: PE-0056039

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

Project: Clay Electric Coop
 Title: Clay Electric Coopertive Lake City Office
 Type: Office
 (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	Drive-up windows at fast food restaruants	No	400.00	1.0	400	256
Ext Light 2	Main entries	Yes	30.00	6.0	180	256
Ext Light 3	Entry Canopies	Yes	1.25	70.0	88	64
Ext Light 6	Walkways more that 10 feet wide	Yes	0.20	650.0	130	183
Ext Light 7	Walk way less than 10 feet wide	Yes	1.00	60.0	60	256
Ext Light 8	Special Feature areas	Yes	0.20	200.0	40	280
Ext Light 9	Uncovered Parking Areas -- Parking lots and Drives	Yes	0.15	22,000.0	3,300	

Tradable Surfaces: 1039 (W) Allowance for Tradable: 4007.375 (W)

All External Lighting: 1295 (W)

Complicance check includes a excess/Base allowance of 209.88(W)

PASSES

Project: Clay Electric Coop
Title: Clay Electric Coopertive Lake City Office
Type: Office
(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	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity		14.00	12.23	8.00		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity		9.00	7.70			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume		0.25	0.90			PASSES
Air Distribution System (Sup)	ADS System		6.00				PASSES
Pr0Sy2	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	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity		14.00	12.23	8.00		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity		9.00	7.70			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume		0.28	0.90			PASSES
Air Distribution System (Sup)	ADS System		6.00				PASSES
Pr0Sy3	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	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity		14.00	12.23	8.00		PASSES

Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	14.00	12.23	8.00	PASSES		
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	9.00	7.70		PASSES		
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	0.44	0.90		PASSES		
Air Distribution System (Sup)	ADS System	6.00			PASSES		
Pr0Sy7	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	14.00	12.23	8.00			PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	9.00	7.70				PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	0.20	0.90				PASSES
Pr0Sy8	System 8	Constant Volume Packaged System				No. of Units	1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	10.60	10.30	11.40			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	0.40	0.90				PASSES
Air Distribution System (Sup)	ADS System	6.00					PASSES
							PASSES

Project: Clay Electric Coop
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Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Report	13-101	Input Report Print-Out from EnergyGauge FlaCom attached	☒
Operations Manual	13-102.1, 13-410, 13-413	Operations manual provided to owner	☒
Windows & Doors	13-406.AB.1.1	Glazed swinging entrance & revolving doors: max. 1.0 cfm/ft ² ; all other products: 0.4 cfm/ft ²	☒
Joints/Cracks	13-406.AB.1.2	To be caulked, gasketed, weather-stripped or otherwise sealed	☒
Dropped Ceiling Cavity	13-406.AB.3	Vented: seal & insulated ceiling. Unvented seal & insulate roof & side walls	☒
System	13-407	HVAC Load sizing has been performed	☒
Reheat	13-407.B	Electric resistance reheat prohibited	☒
HVAC Efficiency	13-407, 13-408	Minimum efficiencies: Cooling Tables 13-407.AB.3.2.1A-D; Heating Tables 13-407.AB.3.2.1B, 13-407.AB.3.2.1D, 13-408.AB.3.2.1E, 13-408.AB.3.2F	☒
HVAC Controls	13-407.AB.2	Zone controls prevent reheat (exceptions); simultaneous heating and cooling in each zone; combined HAC deadband of at least 5°F (exceptions)	☒
Ventilation Controls	13-409.AB.3	Motorized dampers reqd, except gravity dampers OK in: 1) exhaust systems and 2) systems with design outside air intake or exhaust capacity ≤300 cfm	☒
ADS	13-410	Duct sizing and Design have been performed	☒
HVAC Ducts	13-410.AB	Air ducts, fittings, mechanical equipment & plenum chambers shall be mechanically attached, sealed, insulated & installed per Sec. 13-410 Air Distribution Systems	☒
Balancing	13-410.AB.4	HVAC distribution system(s) tested & balanced. Report in construction documents	☒
Piping Insulation	13-411.AB	In accordance with Table 13-411.AB.2	☒
Water Heaters	13-412.AB	Performance requirements in accordance with Table 13-412.AB.3. Heat trap required	☒
Swimming Pools	13-412.AB.2.6	Cover on heated swimming pools: Time switch (exceptions); Readily accessible on/off switch	☒
Hot Water Pipe Insulation	13-411.AB.3	Table 13-411.AB.2 for circulating systems, first 8 feet of outlet pipe from storage tank and between inlet pipe and heat trap	☒
Water Fixtures	13-412.AB.2.5	Shower hot water flow restricted to 2.5 gpm at 80 psi. Public lavatory fixture hot water flow 0.5 gpm max; if self-closing valve 0.25 gallon recirculating, 0.5 gallon non recirculating	☒
Motors	13-414	Motor efficiency criteria have been met	☒
Lighting Controls	13-415.AB	Automatic control required for interior lighting in buildings >5,000 s.f.; Space control; Exterior photo sensor; Tandem wiring with 1 or 3 linear fluorescent lamps >30W	☒

7	Pr0Zo7	Zone 7	CONDITIONED	238.0	1	238.0	☐
8	Pr0Zo10	Zone 10	CONDITIONED	247.0	1	247.0	☐
9	Pr0Zo11	Zone 11	UNCONDITIONED	2068.0	1	2068.0	☐

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	Lobby (General) - Reception and Waiting	32.00	32.00	9.00	1	1024.0	9216.0
2	Pr0Zo1Sp2	Zo0Sp2	Toilet and Washroom	6.00	7.00	9.00	2	84.0	756.0
In Zone: Pr0Zo2									
1	Pr0Zo3Sp1	Zo0Sp1	Office - Enclosed	15.00	51.60	9.00	1	774.0	6966.0
2	Pr0Zo3Sp2	Zo0Sp2	Corridor	34.00	5.00	9.00	1	170.0	1530.0
In Zone: Pr0Zo3									
1	Pr0Zo5Sp1	Zo0Sp1	Conference/meeting (Multiple Functions)	10.00	57.00	9.00	1	570.0	5130.0
2	Pr0Zo5Sp2	Zo0Sp2	Corridor	5.00	36.00	9.00	1	180.0	1620.0
In Zone: Pr0Zo4									
1	Pr0Zo6Sp1	Zo0Sp1	Office - Enclosed	10.00	82.50	9.00	1	825.0	7425.0
2	Pr0Zo6Sp2	Zo0Sp2	Corridor	5.00	87.00	9.00	1	435.0	3915.0
3	Pr0Zo6Sp3	Zo0Sp3	Conference/meeting (Multiple Functions)	10.00	34.80	9.00	1	348.0	3132.0
In Zone: Pr0Zo5									
1	Pr0Zo7Sp1	Zo0Sp1	Toilet and Washroom	26.00	12.00	9.00	1	312.0	2808.0
2	Pr0Zo7Sp2	Zo0Sp2	Office - Enclosed	35.00	22.00	9.00	1	770.0	6930.0
3	Pr0Zo7Sp3	Zo0Sp3	Office - Open Plan	35.00	11.00	9.00	1	385.0	3465.0
In Zone: Pr0Zo6									
1	Pr0Zo8Sp1	Zo0Sp1	Corridor	36.00	5.00	9.00	1	180.0	1620.0
2	Pr0Zo8Sp2	Zo0Sp2	Office - Enclosed	36.00	12.00	9.00	1	432.0	3888.0

1	Pr0Zo3Wa3	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	24.00	13.00	1	312.0	South	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo4												
1	Pr0Zo6Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	4.00	13.00	1	52.0	East	0.0732	0.541	7.94	13.7	☐
2	Pr0Zo6Wa2	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	11.00	13.00	1	143.0	West	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo5												
1	Pr0Zo7Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	36.00	13.00	1	468.0	South	0.0732	0.541	7.94	13.7	☐
2	Pr0Zo7Wa2	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	37.00	13.00	1	481.0	East	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo6												
1	Pr0Zo8Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	45.00	13.00	1	585.0	North	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo7												
1	Pr0Zo9Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	14.00	13.00	1	182.0	North	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo11												
1	Pr0Zo11Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	45.00	13.00	1	585.0	North	0.0732	0.541	7.94	13.7	☐
2	Pr0Zo11Wa2	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	48.00	13.00	1	624.0	East	0.0732	0.541	7.94	13.7	☐
3	Pr0Zo11Wa4	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	45.00	13.00	1	585.0	South	0.0732	0.541	7.94	13.7	☐

Windows

No	Description	Type	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]
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In Zone: Pr0Zo5	1	Pr0Zo6WalDr1	Solid core flush (2.25)	No	3.00	7.00	1	21.0	0.3504	0.00	0.00	2.85	☐
In Wall: Pr0Zo7Wa2													
1	Pr0Zo7Wa2Dr1	Solid core flush (2.25)	No	2.50	7.00	3	17.5	0.3504	0.00	0.00	0.00	2.85	☐
In Zone: Pr0Zo11													
In Wall: Pr0Zo11Wal													
1	Pr0Zo11WalDr1	Solid core flush (2.25)	No	3.00	7.00	1	21.0	0.3504	0.00	0.00	0.00	2.85	☐
In Wall: Pr0Zo11Wa4													
1	Pr0Zo11Wa4Dr1	Solid core flush (2.25)	No	3.00	7.00	1	21.0	0.3504	0.00	0.00	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	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	110.80	10.00	1	1108.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo2												
1	Pr0Zo3Rf1	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	94.40	10.00	1	944.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo3												
1	Pr0Zo5Rf1	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	75.00	10.00	1	750.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo4												
1	Pr0Zo6Rf1	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	16.08	100.00	1	1608.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo5												
1	Pr0Zo7Rf1	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	14.67	100.00	1	1467.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo6												

Pr0Sy1	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr			No. Of Units 1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	34800.00	14.00	8.00	☐
2	Heating System	35000.00	9.00		☐
3	Air Handling System -Supply	1165.00	0.25		☐
4	Air Distribution System (Sup)		6.00		☐
Pr0Sy2	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr			No. Of Units 1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	28600.00	14.00	8.00	☐
2	Heating System	27800.00	9.00		☐
3	Air Handling System -Supply	985.00	0.28		☐
4	Air Distribution System (Sup)		6.00		☐
Pr0Sy3	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr			No. Of Units 1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	28600.00	14.00	8.00	☐
2	Heating System	27800.00	9.00		☐
3	Air Handling System -Supply	985.00	0.28		☐
4	Air Distribution System (Sup)		6.00		☐
Pr0Sy4	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr			No. Of Units 1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	34800.00	14.00	8.00	☐
2	Heating System	35000.00	9.00		☐
3	Air Handling System -Supply	1165.00	0.25		☐
4	Air Distribution System (Sup)		6.00		☐

Plant				
Equipment	Category	Size	Inst.No	Eff. IPLV
				☐

Water Heaters				
W-Heater Description	CapacityCap.Unit	I/P Rt.	Efficiency	Loss
1 Electric water heater	30 [Gal]	5 [kW]	99.0000 [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]
1	Ext Light 1	Drive-up windows at fast food restaurants	4	64	1.00	Photo Sensor control	256.00 ☐
2	Ext Light 2	Main entries	4	64	6.00	Photo Sensor control	256.00 ☐
3	Ext Light 3	Entry Canopies	1	64	70.00	Photo Sensor control	64.00 ☐
4	Ext Light 6	Walkways more than 10 feet wide	3	61	650.00	Photo Sensor control	183.00 ☐
5	Ext Light 7	Walk way less than 10 feet wide	4	64	60.00	Photo Sensor control	256.00 ☐
6	Ext Light 8	Special Feature areas	10	28	200.00	Photo Sensor control	280.00 ☐
7	Ext Light 9	Uncovered Parking Areas -- Parking lots and Drives	0	0	22000.00	Photo Sensor control	0.00 ☐

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	0.25	1.00	No ☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]
1018	0.5 Pol/35/8" Mtl std@24" oc/R19/0.5" Gyp	No	No	0.04	1.01	8.57	23.7
							☐
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	218	POLYURETHANE,EXP.,1/2IN,	0.0417	0.000			☐
2	23	6 in. Insulation	0.5000	0.000			☐
3	187	GYP OR PLAS BOARD,1/2IN	0.0417	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			☐

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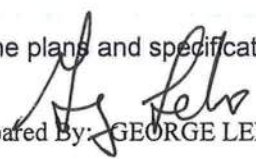
PROJECT SUMMARY

Short Desc: Clay Electric Coop Owner: Clay Electric Cooperative Address1: 1659 SW SR 47 Address2: Type: Office Jurisdiction: COLUMBIA COUNTY, COLUMBIA COUNTY, FL (221000) Conditioned Area: 7023 SF No of Stories: 1 Permit No: 0	Description: Clay Electric Coopertive Lak City: Lake City State: FL Zip: 32025 Class: New Finished building Conditioned & UnConditioned Area: 9091 SF Area entered from Plans 9091 SF Max Tonnage 8.8 If different, write in: _____
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CERTIFICATIONS

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

Prepared By:  GEORGE LEBO

Building Official: _____

Date: 3/5/12

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

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Ext Light 8	Special Feature areas	Yes	0.20	200.0	40	280
Ext Light 9	Uncovered Parking Areas -- Parking lots and Drives	Yes	0.15	22,000.0	3,300	

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All External Lighting: 1295 (W)

Complicance check includes a excess/Base allowance of 209.88(W)

PASSES

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							1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity		14.00	12.23	8.00		PASSES

Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	14.00	12.23	8.00	PASSES		
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	9.00	7.70	PASSES			
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	0.44	0.90	PASSES			
Air Distribution System (Sup)	ADS System	6.00	PASSES				
Pr0Sy7	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	14.00	12.23	8.00	PASSES		
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	9.00	7.70	PASSES			
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	0.20	0.90	PASSES			
Pr0Sy8	System 8	Constant Volume Packaged System				No. of Units	1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	10.60	10.30	11.40	PASSES		
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	0.40	0.90	PASSES			
Air Distribution System (Sup)	ADS System	6.00	PASSES				
						PASSES	

Project: Clay Electric Coop
 Title: Clay Electric Coopertive Lake City Office
 Type: Office
 (WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Report	13-101	Input Report Print-Out from EnergyGauge FlaCom attached	☒
Operations Manual	13-102.1, 13-410, 13-413	Operations manual provided to owner	☒
Windows & Doors	13-406.AB.1.1	Glazed swinging entrance & revolving doors: max. 1.0 cfm/ft ² ; all other products: 0.4 cfm/ft ²	☒
Joints/Cracks	13-406.AB.1.2	To be caulked, gasketed, weather-stripped or otherwise sealed	☒
Dropped Ceiling Cavity	13-406.AB.3	Vented: seal & insulated ceiling. Unvented seal & insulate roof & side walls	☒
System	13-407	HVAC Load sizing has been performed	☒
Reheat	13-407.B	Electric resistance reheat prohibited	☒
HVAC Efficiency	13-407, 13-408	Minimum efficiencies: Cooling Tables 13-407.AB.3.2.1A-D; Heating Tables 13-407.AB.3.2.1B, 13-407.AB.3.2.1D, 13-408.AB.3.2.1E, 13-408.AB.3.2F	☒
HVAC Controls	13-407.AB.2	Zone controls prevent reheat (exceptions); simultaneous heating and cooling in each zone; combined HAC deadband of at least 5°F (exceptions)	☒
Ventilation Controls	13-409.AB.3	Motorized dampers reqd, except gravity dampers OK in: 1) exhaust systems and 2) systems with design outside air intake or exhaust capacity ≤300 cfm	☒
ADS	13-410	Duct sizing and Design have been performed	☒
HVAC Ducts	13-410.AB	Air ducts, fittings, mechanical equipment & plenum chambers shall be mechanically attached, sealed, insulated & installed per Sec. 13-410 Air Distribution Systems	☒
Balancing	13-410.AB.4	HVAC distribution system(s) tested & balanced. Report in construction documents	☒
Piping Insulation	13-411.AB	In accordance with Table 13-411.AB.2	☒
Water Heaters	13-412.AB	Performance requirements in accordance with Table 13-412.AB.3. Heat trap required	☒
Swimming Pools	13-412.AB.2.6	Cover on heated swimming pools Time switch (exceptions); Readily accessible on/off switch	☒
Hot Water Pipe Insulation	13-411.AB.3	Table 13-411.AB.2 for circulating systems, first 8 feet of outlet pipe from storage tank and between inlet pipe and heat trap	☒
Water Fixtures	13-412.AB.2.5	Shower hot water flow restricted to 2.5 gpm at 80 psi. Public lavatory fixture hot water flow 0.5 gpm max; if self-closing valve 0.25 gallon recirculating, 0.5 gallon non recirculating	☒
Motors	13-414	Motor efficiency criteria have been met	☒
Lighting Controls	13-415.AB	Automatic control required for interior lighting in buildings >5,000 s.f.; Space control; Exterior photo sensor; Tandem wiring with 1 or 3 linear fluorescent lamps >30W	☒

7	Pr0Zo7	Zone 7	CONDITIONED	238.0	1	238.0	☐
8	Pr0Zo10	Zone 10	CONDITIONED	247.0	1	247.0	☐
9	Pr0Zo11	Zone 11	UNCONDITIONED	2068.0	1	2068.0	☐

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	Lobby (General) - Reception and Waiting	32.00	32.00	9.00	1	1024.0	9216.0
2	Pr0Zo1Sp2	Zo0Sp2	Toilet and Washroom	6.00	7.00	9.00	2	84.0	756.0
In Zone: Pr0Zo2									
1	Pr0Zo3Sp1	Zo0Sp1	Office - Enclosed	15.00	51.60	9.00	1	774.0	6966.0
2	Pr0Zo3Sp2	Zo0Sp2	Corridor	34.00	5.00	9.00	1	170.0	1530.0
In Zone: Pr0Zo3									
1	Pr0Zo5Sp1	Zo0Sp1	Conference/meeting (Multiple Functions)	10.00	57.00	9.00	1	570.0	5130.0
2	Pr0Zo5Sp2	Zo0Sp2	Corridor	5.00	36.00	9.00	1	180.0	1620.0
In Zone: Pr0Zo4									
1	Pr0Zo6Sp1	Zo0Sp1	Office - Enclosed	10.00	82.50	9.00	1	825.0	7425.0
2	Pr0Zo6Sp2	Zo0Sp2	Corridor	5.00	87.00	9.00	1	435.0	3915.0
3	Pr0Zo6Sp3	Zo0Sp3	Conference/meeting (Multiple Functions)	10.00	34.80	9.00	1	348.0	3132.0
In Zone: Pr0Zo5									
1	Pr0Zo7Sp1	Zo0Sp1	Toilet and Washroom	26.00	12.00	9.00	1	312.0	2808.0
2	Pr0Zo7Sp2	Zo0Sp2	Office - Enclosed	35.00	22.00	9.00	1	770.0	6930.0
3	Pr0Zo7Sp3	Zo0Sp3	Office - Open Plan	35.00	11.00	9.00	1	385.0	3465.0
In Zone: Pr0Zo6									
1	Pr0Zo8Sp1	Zo0Sp1	Corridor	36.00	5.00	9.00	1	180.0	1620.0
2	Pr0Zo8Sp2	Zo0Sp2	Office - Enclosed	36.00	12.00	9.00	1	432.0	3888.0

In Space: Pr0Zo5Sp1									
1	Recessed Fluorescent - No vent	General Lighting	9	61	549	Manual On/Off	1	☐	
2	Recessed Fluorescent - No vent	General Lighting	9	32	288	Manual On/Off	1	☐	
In Space: Pr0Zo5Sp2									
1	Recessed Fluorescent - No vent	General Lighting	3	61	183	Manual On/Off	1	☐	
In Zone: Pr0Zo4									
In Space: Pr0Zo6Sp1									
1	Recessed Fluorescent - No vent	General Lighting	4	61	244	Manual On/Off	1	☐	
2	Recessed Fluorescent - No vent	General Lighting	1	32	32	Manual On/Off	1	☐	
3	Recessed Fluorescent - No vent	General Lighting	11	61	671	Manual On/Off	1	☐	
In Space: Pr0Zo6Sp2									
1	Compact Fluorescent	General Lighting	8	61	488	Manual On/Off	1	☐	
In Space: Pr0Zo6Sp3									
1	Recessed Fluorescent - No vent	General Lighting	2	61	122	Manual On/Off	1	☐	
2	Recessed Fluorescent - No vent	General Lighting	2	61	122	Manual On/Off	1	☐	
3	Recessed Fluorescent - No vent	General Lighting	4	32	128	Manual On/Off	1	☐	
In Zone: Pr0Zo5									
In Space: Pr0Zo7Sp1									
1	Recessed Fluorescent - No vent	General Lighting	6	61	366	Manual On/Off	1	☐	
2	Recessed Fluorescent - No vent	General Lighting	2	32	64	Manual On/Off	1	☐	
In Space: Pr0Zo7Sp2									
1	Recessed Fluorescent - No vent	General Lighting	5	61	305	Manual On/Off	1	☐	
In Space: Pr0Zo7Sp3									
1	Recessed Fluorescent - No vent	General Lighting	6	61	366	Manual On/Off	1	☐	
In Zone: Pr0Zo6									
In Space: Pr0Zo8Sp1									
1	Recessed Fluorescent - No vent	General Lighting	3	61	183	Manual On/Off	1	☐	

1	Pr0Zo3Wa3	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	24.00	13.00	1	312.0	South	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo4												
1	Pr0Zo6Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	4.00	13.00	1	52.0	East	0.0732	0.541	7.94	13.7	☐
2	Pr0Zo6Wa2	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	11.00	13.00	1	143.0	West	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo5												
1	Pr0Zo7Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	36.00	13.00	1	468.0	South	0.0732	0.541	7.94	13.7	☐
2	Pr0Zo7Wa2	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	37.00	13.00	1	481.0	East	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo6												
1	Pr0Zo8Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	45.00	13.00	1	585.0	North	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo7												
1	Pr0Zo9Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	14.00	13.00	1	182.0	North	0.0732	0.541	7.94	13.7	☐
In Zone: Pr0Zo11												
1	Pr0Zo11Wa1	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	45.00	13.00	1	585.0	North	0.0732	0.541	7.94	13.7	☐
2	Pr0Zo11Wa2	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	48.00	13.00	1	624.0	East	0.0732	0.541	7.94	13.7	☐
3	Pr0Zo11Wa4	0.5 Pol/35/8" Mtl std@24"oc/R11/0.5" Gyp	45.00	13.00	1	585.0	South	0.0732	0.541	7.94	13.7	☐

Windows

No	Description	Type	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]
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In Zone: Pr0Zo5	1	Pr0Zo6WalDr1	Solid core flush (2.25)	No	3.00	7.00	1	21.0	0.3504	0.00	0.00	2.85	☐
In Wall: Pr0Zo7Wa2													
1	Pr0Zo7Wa2Dr1	Solid core flush (2.25)	No	2.50	7.00	3	17.5	0.3504	0.00	0.00	0.00	2.85	☐
In Zone: Pr0Zo11													
In Wall: Pr0Zo11Wal													
1	Pr0Zo11WalDr1	Solid core flush (2.25)	No	3.00	7.00	1	21.0	0.3504	0.00	0.00	0.00	2.85	☐
In Wall: Pr0Zo11Wa4													
1	Pr0Zo11Wa4Dr1	Solid core flush (2.25)	No	3.00	7.00	1	21.0	0.3504	0.00	0.00	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 Dens. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.s.f.F/Btu]	
In Zone: Pr0Zo1												
1	Pr0Zo1Rfl	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	110.80	10.00	1	1108.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo2												
1	Pr0Zo3Rfl	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	94.40	10.00	1	944.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo3												
1	Pr0Zo5Rfl	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	75.00	10.00	1	750.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo4												
1	Pr0Zo6Rfl	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	16.08	100.00	1	1608.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo5												
1	Pr0Zo7Rfl	0.5 Pol/35/8" Mtl std@24"oc/R19/0.5" Gyp	14.67	100.00	1	1467.0	0.00	0.0423	1.01	8.57	23.7	☐
In Zone: Pr0Zo6												

Pr0Sy1	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 1
Component	Category	Capacity	IPLV
1	Cooling System	34800.00	14.00
2	Heating System	35000.00	9.00
3	Air Handling System -Supply	1165.00	0.25
4	Air Distribution System (Sup)	6.00	6.00
Pr0Sy2	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 1
Component	Category	Capacity	IPLV
1	Cooling System	28600.00	14.00
2	Heating System	27800.00	9.00
3	Air Handling System -Supply	985.00	0.28
4	Air Distribution System (Sup)	6.00	6.00
Pr0Sy3	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 1
Component	Category	Capacity	IPLV
1	Cooling System	28600.00	14.00
2	Heating System	27800.00	9.00
3	Air Handling System -Supply	985.00	0.28
4	Air Distribution System (Sup)	6.00	6.00
Pr0Sy4	System 1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 1
Component	Category	Capacity	IPLV
1	Cooling System	34800.00	14.00
2	Heating System	35000.00	9.00
3	Air Handling System -Supply	1165.00	0.25
4	Air Distribution System (Sup)	6.00	6.00

Plant				
Equipment	Category	Size	Inst.No	Eff. IPLV
				☐

Water Heaters				
W-Heater Description	CapacityCap.Unit	I/P Rt.	Efficiency	Loss
1 Electric water heater	30 [Gal]	5 [kW]	99.0000 [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]
1 Ext Light 1	Drive-up windows at fast food restaurants	4	64	1.00	Photo Sensor control 256.00 ☐
2 Ext Light 2	Main entries	4	64	6.00	Photo Sensor control 256.00 ☐
3 Ext Light 3	Entry Canopies	1	64	70.00	Photo Sensor control 64.00 ☐
4 Ext Light 6	Walkways more than 10 feet wide	3	61	650.00	Photo Sensor control 183.00 ☐
5 Ext Light 7	Walk way less than 10 feet wide	4	64	60.00	Photo Sensor control 256.00 ☐
6 Ext Light 8	Special Feature areas	10	28	200.00	Photo Sensor control 280.00 ☐
7 Ext Light 9	Uncovered Parking Areas -- Parking lots and Drives	0	0	22000.00	Photo Sensor control 0.00 ☐

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	0.25	1.00 No ☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]
1018	0.5 Pol/35/8" Mtl std@24" oc/R19/0.5" Gyp	No	No	0.04	1.01	8.57	23.7
							☐
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	218	POLYURETHANE,EXP.,1/2IN,	0.0417	0.000			☐
2	23	6 in. Insulation	0.5000	0.000			☐
3	187	GYP OR PLAS BOARD,1/2IN	0.0417	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			☐