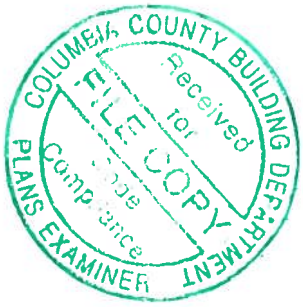
38490

Palms Medical Group
HVAC Load Analysis

for

Palms Medical Group
4784 US HIGHWAY 90
LAKE CITY FLORIDA



Elite Software

CHVAC COMMERCIAL HVAC LOADS

Prepared By:

Phil Ardis
Ardis Mechanical LLC
14832 NE Highway 349
Branford, Fl 32008
352-260-2507
Thursday, August 15, 2019

FLORIDA LICENSE NUMBER CAC051478 LICENSED AC CONTRACTOR.

General Project Data Input

General Project Information

Project file name:	DAVESPALMSMEDICAL.CH8
Project title:	Palms Medical Group
Project address:	4784 US HIGHWAY 90
Project city, state, ZIP:	LAKE CITY FLORIDA
Designed by:	Dave J. Royal
Project date:	August 15, 2019
Weather reference city:	GAINESVILLE, FLORIDA, USA
Client name:	Palms Medical Group
Client address:	4784 US HIGHWAY 90
Client city:	LAKE CITY FLORIDA
Company name:	Ardis Mechanical LLC
Company representative:	Phil Ardis
Company address:	14832 NE Highway 349
Company city:	Branford, Fl 32008
Company phone:	352-260-2507
Company e-mail address:	jphilardis@gmail.com

Barometric pressure:	29.758	in.Hg
Altitude:	151	feet
Latitude:	30	Degrees
Mean daily temperature range:	18.7	Degrees
Starting & ending time for HVAC load calculations:	8am - 5pm	
Number of unique rooms in this project:	1	

Building Default Values

Calculations performed:	Both heating and cooling loads	
Lighting requirements:	0.75	Watts per square foot
Equipment requirements:	1.50	Watts per square foot
People sensible load multiplier:	230	Btuh per person
People latent load multiplier:	190	Btuh per person
Room sensible safety factor:	5	%
Room latent safety factor:	5	%
Room heating safety factor:	5	%
People diversity factor:	100	%
Lighting profile number:	1	
Equipment profile number:	1	
People profile number:	1	
Building default ceiling height:	9.50	feet
Building default wall height:	11.08	feet

Internal Operating Load Profiles (C = 100)

	hr 1	hr 2	hr 3	hr 4	hr 5	hr 6	hr 7	hr 8	hr 9	hr 10	hr 11	hr 12	hr 13	hr 14	hr 15	hr 16	hr 17	hr 18	hr 19	hr 20	hr 21	hr 22	hr 23	hr 24
1	0	0	0	0	0	0	0	C	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0
2	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

General Project Data Input (cont'd)

Building-Level Design Conditions

Design Month	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Diff	In/Outdoor Correction
August	92	77	50%	75	51.69	1
Winter	33			75		

Master Roofs

Roof No.	ASHRAE Roof#	Roof U-Fac	Dark Color	Susp. Ceil
1	1	0.210	No	No

Master Walls

Wall No.	ASHRAE Group	Wall U-Fac	Wall Color
1	G	0.080	D

Master Partitions

Partition No.	Partition U-Factor	Cool T-D	Heat T-D
1	0.062	14	53

Master Glass

Glass No.	Summer U-Factor	Winter U-Factor	Glass Shd.Coef.	Interior Shading	Interior Shd.Coef
1	0.650	0.450	0.850	4	0.000
2	0.450	0.450	0.400	4	0.000
3	0.450	0.450	0.400	4	0.000
4	0.450	0.450	0.400	4	0.000
5	0.450	0.450	0.400	4	0.000
6	0.450	0.450	0.400	4	0.000
7	0.450	0.450	0.400	4	0.000
8	0.450	0.450	0.400	4	0.000
9	0.450	0.450	0.400	4	0.000
10	0.450	0.450	0.400	4	0.000
11	0.450	0.450	0.400	4	0.000
12	0.450	0.450	0.400	4	0.000
13	0.450	0.450	0.400	4	0.000
14	0.450	0.450	0.450	4	0.000
15	0.450	0.450	0.400	4	0.000
16	0.450	0.450	0.400	4	0.000

Master Shading Devices

Shade No.	Dist Horiz Overh Projects	Dist Beyond Right W.Edge	Dist Beyond Left W.Edge	Dist Overh Above Wind	Dist Right Fin Proj	Dist R-Fin Beyond W.Edge	Ht Of Right Fin	Dist Left Fin Proj	Dist L-Fin Beyond W.Edge	Ht Of Left Fin
1	2.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
2	2.00	1.00	1.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00

Air Handler Input

Air Handler Number 1 Input Data

Name:	1
Terminal type:	Constant Volume
Method for CV	Sum of Peaks
Supply fan type:	Draw-thru fan
Calculations performed:	Both heating and cooling loads
Excess supply air:	Reserve
Occurrences:	1
People profile number:	1
Lighting profile number:	1
Equipment profile number:	0
Exhaust may not exceed supply air:	No
Leaving heating coil temp (deg.F):	95.0
Leaving cooling coil temp (deg.F):	50.0
Cooling coil CFM	0
Misc. Btuh gain - supply side:	0
Misc. Btuh gain - return side:	0
Combined fan & motor efficiency:	65
Static pressure across fan (in.wg.):	1.50
Summer supply duct temp rise (deg.F):	0.000
Summer return duct temp rise (deg.F):	0.000
Winter supply duct temp drop (deg.F):	0.000
Winter return duct temp drop (deg.F):	0.000
Chilled water temp difference (deg.F):	0.000
Hot water temp difference (deg.F):	0.000
Cooling ventilation:	367 Direct
Cooling infiltration:	0 Direct
Heating ventilation:	367 Direct
Heating infiltration:	0 Direct
Pretreated outside air:	none
Pretreated air Summer DB (deg.F):	77
Pretreated air Summer WB (deg.F):	72
Pretreated air Winter DB (deg.F):	0

Design Month	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Diff	In/Outdoor Correction
August	92	77	50%	74	53.86	2
Winter	33			75		

Room Input

Room 1: Medical Clini (7000 sq.ft) (Zone 0)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	100.00	Room width (feet):	70.00
Lighting Watts:	4,080	Equipment Watts:	3,500
Number of people in room:	55	People profile number:	1
Lighting profile number:	1	Equipment profile number:	1
Ceiling height (feet):	12.00	Heating safety factor (%):	5
Sensible safety factor (%):	5	Latent safety factor (%):	5
Sensible heat per person (Btuh):	275	Latent heat per person (Btuh):	275
Cooling ventilation method:	Direct	Cooling ventilation value:	1,468.000
Cooling infiltration method:	Direct	Cooling infiltration value:	0.000
Heating ventilation method:	Direct	Heating ventilation value:	1,468.000
Heating infiltration method:	Direct	Heating infiltration value:	0.000
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	1,500
Ceil. exposed to plenum (sq.ft):	7,000	Exposed floor slab perimeter (ft):	340

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	1	0.210	No	100.00	70.00	7,000.0	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	1	G	0.080	D	12.00	100.00	1,200.0	S
2	1	G	0.080	D	12.00	100.00	1,200.0	N
3	1	G	0.080	D	12.00	70.00	840.0	E
4	1	G	0.080	D	12.00	70.00	840.0	W

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	1	0.650	0.850	5.00	3.00	2	30.0	0	90	3

Building Envelope Report

Envelope Report Using Summer U-Factors

Material Types		Gross Area	Glass Area	Net Area	-U-Factor	Area x U-Factor	Average U-Factor
Roof	1	7,000.0	0.0	7,000.0	0.210	1,470.000	0.210
Tot.Roof		7,000.0	0.0	7,000.0	N/A	1,470.000	0.210
Wall	1	4,080.0	30.0	4,050.0	0.080	324.000	0.080
Tot.Wall		4,080.0	30.0	4,050.0	N/A	324.000	0.080
Glass	1	30.0	N/A	30.0	0.650	19.500	0.650
Tot.Glass		30.0	N/A	30.0	N/A	19.500	0.650
Totals				11,080.0		1,813.500	0.164

Wall Direction	Wall Area	Glass Area	Wall Net Area	Wall Avg U-Factor	Glass Avg U-Factor	Glass Avg Shd.Coef
N	1,200.0	0.0	1,200.0	0.080	0.000	0.000
NE	0.0	0.0	0.0	0.000	0.000	0.000
E	840.0	30.0	810.0	0.080	0.650	0.850
SE	0.0	0.0	0.0	0.000	0.000	0.000
S	1,200.0	0.0	1,200.0	0.080	0.000	0.000
SW	0.0	0.0	0.0	0.000	0.000	0.000
W	840.0	0.0	840.0	0.080	0.000	0.000
NW	0.0	0.0	0.0	0.000	0.000	0.000
Totals	4,080.0	30.0	4,050.0	0.080	0.650	0.850

Building Summary Loads

Building peaks in August at 2pm.

Bldg Load Descriptions	Area Quan	Sen Loss	%Tot Loss	Lat Gain	Sen Gain	Net Gain	%Net Gain
Roof	7,000	64,827	42.25	0	62,936	62,936	27.94
Wall	4,050	14,288	9.31	0	12,282	12,282	5.45
Glass	30	595	0.39	0	2,118	2,118	0.94
Floor Slab	340	7,497	4.89	0	0	0	0.00
Skin Loads		87,208	56.84	0	77,336	77,336	34.34
Lighting	4,080	0	0.00	0	14,618	14,618	6.49
Equipment	3,500	0	0.00	1,575	12,540	14,115	6.27
Pool Latent	0	0	0.00	0	0	0	0.00
People	55	0	0.00	15,881	15,881	31,763	14.10
Partition	0	0	0.00	0	0	0	0.00
Cool. Pret.	0	0	0.00	0	0	0	0.00
Heat. Pret.	0	0	0.00	0	0	0	0.00
Cool. Vent.	1,468	0	0.00	55,104	27,302	82,406	36.59
Heat. Vent.	1,468	66,226	43.16	0	0	0	0.00
Cool. Infil.	0	0	0.00	0	0	0	0.00
Heat. Infil.	0	0	0.00	0	0	0	0.00
Draw-Thru Fan	0	0	0.00	0	5,001	5,001	2.22
Blow-Thru Fan	0	0	0.00	0	0	0	0.00
Reserve Cap.	0	0	0.00	0	0	0	0.00
Reheat Cap.	0	0	0.00	0	0	0	0.00
Supply Duct	0	0	0.00	0	0	0	0.00
Return Duct	0	0	0.00	0	0	0	0.00
Misc. Supply	0	0	0.00	0	0	0	0.00
Misc. Return	0	0	0.00	0	0	0	0.00
Building Totals		153,434	100.00	72,561	152,678	225,239	100.00

Building Summary	Sen Loss	%Tot Loss	Lat Gain	Sen Gain	Net Gain	%Net Gain
Ventilation	66,226	43.16	55,104	27,302	82,406	36.59
Infiltration	0	0.00	0	0	0	0.00
Pretreated Air	0	0.00	0	0	0	0.00
Room Loads	87,208	56.84	17,456	120,375	137,831	61.19
Plenum Loads	0	0.00	0	0	0	0.00
Fan/Duct/Misc Loads	0	0.00	0	5,001	5,001	2.22
Building Totals	153,434	100.00	72,561	152,678	225,239	100.00

Check Figures

Total Building Supply Air (based on a 21° TD):	5,457	CFM
Total Building Vent. Air (26.90% of Supply):	1,468	CFM
Total Conditioned Air Space:	7,000	Sq.ft
Supply Air Per Unit Area:	0.7796	CFM/Sq.ft
Area Per Cooling Capacity:	372.9	Sq.ft/Ton
Cooling Capacity Per Area:	0.0027	Tons/Sq.ft
Heating Capacity Per Area:	21.92	Btuh/Sq.ft
Total Heating Required With Outside Air:	153,434	Btuh
Total Cooling Required With Outside Air:	18.77	Tons

Building Summary Loads (Z)

Building peaks in August at 2pm.

Bldg Load Descriptions	Area Quan	Sen Loss	%Tot Loss	Lat Gain	Sen Gain	Net Gain	%Net Gain
Roof	7,000	64,827	42.25	0	62,936	62,936	27.94
Wall	4,050	14,288	9.31	0	12,282	12,282	5.45
Glass	30	595	0.39	0	2,118	2,118	0.94
Floor Slab	340	7,497	4.89	0	0	0	0.00
Skin Loads		87,208	56.84	0	77,336	77,336	34.34
Lighting	4,080	0	0.00	0	14,618	14,618	6.49
Equipment	3,500	0	0.00	1,575	12,540	14,115	6.27
Pool Latent	0	0	0.00	0	0	0	0.00
People	55	0	0.00	15,881	15,881	31,763	14.10
Partition	0	0	0.00	0	0	0	0.00
Cool. Pret.	0	0	0.00	0	0	0	0.00
Heat. Pret.	0	0	0.00	0	0	0	0.00
Cool. Vent.	1,468	0	0.00	55,104	27,302	82,406	36.59
Heat. Vent.	1,468	66,226	43.16	0	0	0	0.00
Cool. Infil.	0	0	0.00	0	0	0	0.00
Heat. Infil.	0	0	0.00	0	0	0	0.00
Draw-Thru Fan	0	0	0.00	0	5,001	5,001	2.22
Blow-Thru Fan	0	0	0.00	0	0	0	0.00
Reserve Cap.	0	0	0.00	0	0	0	0.00
Reheat Cap.	0	0	0.00	0	0	0	0.00
Supply Duct	0	0	0.00	0	0	0	0.00
Return Duct	0	0	0.00	0	0	0	0.00
Misc. Supply	0	0	0.00	0	0	0	0.00
Misc. Return	0	0	0.00	0	0	0	0.00
Building Totals		153,434	100.00	72,561	152,678	225,239	100.00

Building Summary	Sen Loss	%Tot Loss	Lat Gain	Sen Gain	Net Gain	%Net Gain
Ventilation	66,226	43.16	55,104	27,302	82,406	36.59
Infiltration	0	0.00	0	0	0	0.00
Pretreated Air	0	0.00	0	0	0	0.00
Room Loads	87,208	56.84	17,456	120,375	137,831	61.19
Plenum Loads	0	0.00	0	0	0	0.00
Fan/Duct/Misc Loads	0	0.00	0	5,001	5,001	2.22
Building Totals	153,434	100.00	72,561	152,678	225,239	100.00

Check Figures

Total Building Supply Air (based on a 21° TD):	5,457	CFM
Total Building Vent. Air (26.90% of Supply):	1,468	CFM
Total Conditioned Air Space:	7,000	Sq.ft
Supply Air Per Unit Area:	0.7796	CFM/Sq.ft
Area Per Cooling Capacity:	372.9	Sq.ft/Ton
Cooling Capacity Per Area:	0.0027	Tons/Sq.ft
Heating Capacity Per Area:	21.92	Btuh/Sq.ft
Total Heating Required With Outside Air:	153,434	Btuh
Total Cooling Required With Outside Air:	18.77	Tons

Air Handler #1 - 1 - Summary Loads for Zones (Z)

Zn No	Description Zone Peak Time	Area People Volume	Htg.Loss Htg.CFM CFM/Sqft	Sen.Gain Clg.CFM CFM/Sqft	Lat.Gain S.Exh W.Exh	Htg.O.A. Req.CFM Act.CFM	Clg.O.A. Req.CFM Act.CFM
0	Zone 0	7,000	87,208	120,375	17,456	n/a	n/a
	2pm August	55	4,059	5,457	0	1,468	1,468
		84,000	0.58	0.78	0	1,468	1,468
1	Plenum	0	0	0	0	None	None
	5pm in August	0	0	0	0	0	0
		0	0	0	0	0	0
	Zone Peak Totals:	7,000	87,208	120,375	17,456		
	Total Zones: 1	55	4,059	5,457	0	1,468	1,468
		84,000	0.58	0.78	0	1,468	1,468

Air Handler #1 - 1 - Summary Loads for Rooms (Z)

Rm No	Description Zone Peak Time	Area People Volume	Htg.Loss Htg.CFM CFM/Sqft	Sen.Gain Clg.CFM CFM/Sqft	Lat.Gain S.Exh W.Exh	Htg.O.A. Req.CFM Act.CFM	Clg.O.A. Req.CFM Act.CFM
1	Medical Clini	7,000	87,208	120,375	17,456	Direct	Direct
	2pm August	55	4,059	5,457	0	1,468	1,468
		84,000	0.58	0.78	0	1,468	1,468
1	Plenum	0	0	0	0	None	None
	5pm in August	0	0	0	0	0	0
		0	0	0	0	0	0
	Room Peak Totals:	7,000	87,208	120,375	17,456		
	Total Rooms: 1	55	4,059	5,457	0	1,468	1,468
		84,000	0.58	0.78	0	1,468	1,468

Air Handler #1 - 1 - Total Load Summary (Z)

Air Handler Description: 1 Constant Volume - Sum of Peaks
Supply Air Fan: Draw-Thru with program estimated horsepower of 1.98 HP
Fan Input: 65% motor and fan efficiency with 1.5 in. water across the fan
Sensible Heat Ratio: 0.88 --- This system occurs 1 time(s) in the building. ---

Air System Peak Time: 2pm in August.
Outdoor Conditions: Clg: 91° DB, 77° WB, 117.61 grains, Htg: 33° DB
Indoor Conditions: Clg: 74° DB, 50% RH, Htg: 75° DB

Summer: Ventilation controls outside air, ----- Winter: Ventilation controls outside air.

Room Space sensible loss:	87,208 Btuh		
Infiltration sensible loss:	0 Btuh	0 CFM	
Outside Air sensible loss:	66,226 Btuh	1,468 CFM	
Supply Duct sensible loss:	0 Btuh		
Return Duct sensible loss:	0 Btuh		
Return Plenum sensible loss:	0 Btuh		
Total System sensible loss:			153,434 Btuh
Heating Supply Air: 87,208 / (.995 X 1.08 X 20) =		4,059 CFM	
Winter Vent Outside Air (36.2% of supply) =		1,468 CFM	
Room space sensible gain:	120,375 Btuh		
Infiltration sensible gain:	0 Btuh		
Draw-thru fan sensible gain:	5,001 Btuh		
Supply duct sensible gain:	0 Btuh		
Reserve sensible gain:	0 Btuh		
Total sensible gain on supply side of coil:			125,376 Btuh
Cooling Supply Air: 125,376 / (.995 X 1.1 X 21) =		5,457 CFM	
Summer Vent Outside Air (26.9% of supply) =		1,468 CFM	
Return duct sensible gain:	0 Btuh		
Return plenum sensible gain:	0 Btuh		
Outside air sensible gain:	27,302 Btuh	1,468 CFM	
Blow-thru fan sensible gain:	0 Btuh		
Total sensible gain on return side of coil:			27,302 Btuh
Total sensible gain on air handling system:			152,678 Btuh
Room space latent gain:	17,456 Btuh		
Infiltration latent gain:	0 Btuh		
Outside air latent gain:	55,104 Btuh		
Total latent gain on air handling system:			72,561 Btuh
Total system sensible and latent gain:			225,239 Btuh

Check Figures

Total Air Handler Supply Air (based on a 21° TD):	5,457	CFM
Total Air Handler Vent. Air (26.90% of Supply):	1,468	CFM
Total Conditioned Air Space:	7,000	Sq.ft
Supply Air Per Unit Area:	0.7796	CFM/Sq.ft
Area Per Cooling Capacity:	372.9	Sq.ft/Ton
Cooling Capacity Per Area:	0.0027	Tons/Sq.ft
Heating Capacity Per Area:	21.92	Btuh/Sq.ft
Total Heating Required With Outside Air:	153,434	Btuh
Total Cooling Required With Outside Air:	18.77	Tons

Zone Detailed Loads (At Zone Peak Times)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
Room 1-Medical Clini - Air Handler 1 (1), Zone 0 peaks (sensible) in August at 2pm.								
Roof-1-1-No.Clg-L	7,000	0.50	40.8	0.210	59,939		8.820	61,740
Wall-1-S-G-D	1,200	1	47.7	0.080	4,574		3.360	4,032
Wall-2-N-G-D	1,200	1	22.7	0.080	2,174		3.360	4,032
Wall-3-E-G-D	810	1	32.4	0.080	2,100		3.360	2,722
Wall-4-W-G-D	840	1	42.4	0.080	2,849		3.360	2,822
Gls-E-1-90-Tran	30.0	1.000	15	0.650	286		18.900	567
0%S-0-UNS-Solar	30.0	0.850	219	0.310	1,731			
Lights-Prof=1	4,080	1.000			13,922			
Equipment-Prof=1	3,500	1.000			11,942	1,500		
People-Prof=1	55.0	1.000			15,125	15,125		
Floor slab	340						21.000	7,140
Sub-total					114,643	16,625		83,055
Safety factors:					+5%	+5%		+5%
Total w/ safety factors:					120,375	17,456		87,208
Plenum 1- peaks in August at 5pm.								
Sub-total					0	0		0
Safety factors:					+5%	+5%		+5%
Total w/ safety factors:					0	0		0

Room Detailed Loads (At Room Peak Times)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
Room 1-Medical Clini peaks (sensible) in August at 2pm, Air Handler 1 (1), Zone 0, 100.0 x 70.0, Construction Type: 11 (Medium)								
Roof-1-1-No Clg-L	7,000	0.50	40.8	0.210	59,939		8.820	61,740
Wall-1-S-G-D	1,200	1	47.7	0.080	4,574		3.360	4,032
Wall-2-N-G-D	1,200	1	22.7	0.080	2,174		3.360	4,032
Wall-3-E-G-D	810	1	32.4	0.080	2,100		3.360	2,722
Wall-4-W-G-D	840	1	42.4	0.080	2,849		3.360	2,822
Gls-E-1-90-Tran	30.0	1.000	15	0.650	286		18.900	567
0%S-0-UNS-Solar	30.0	0.850	219	0.310	1,731			
Lights-Prof=1	4,080	1.000			13,922			
Equipment-Prof=1	3,500	1.000			11,942	1,500		
People-Prof=1	55.0	1.000			15,125	15,125		
Floor slab	340						21.000	7,140
Sub-total					114,643	16,625		83,055
Safety factors:					+5%	+5%		+5%
Total w/ safety factors:					120,375	17,456		87,208
Plenum 1- peaks in August at 5pm., Construction Type: 11 (Medium)								
Sub-total					0	0		0
Safety factors:					+5%	+5%		+5%
Total w/ safety factors:					0	0		0

Building Load Profiles

Bldg.(Z) Hour	August Adj. Load	(None) Adj. Load	(None) Adj. Load	(None) Adj. Load	(None) Adj. Load	(None) Adj. Load
8am	313,650	0	0	0	0	0
9am	294,097	0	0	0	0	0
10am	298,772	0	0	0	0	0
11am	279,261	0	0	0	0	0
12pm	284,475	0	0	0	0	0
1pm	296,743	0	0	0	0	0
2pm	290,242	0	0	0	0	0
3pm	283,747	0	0	0	0	0
4pm	290,242	0	0	0	0	0
5pm	296,743	0	0	0	0	0

Load Preview

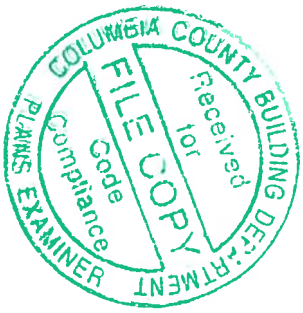
Scope	Peak Time	Area	Volume	Sensible Gain	Latent Gain	Net Gain	Net Tons	Sensible Loss	Cooling Supply Airflow	Heating Supply Airflow	Duct Size
Building	August 2pm	7,000	84,000	152,678	72,561	225,239	18.77	153,434	5,457	4,059	
System 1	August 2pm	7,000	84,000	152,678	72,561	225,239	18.77	153,434	5,457	4,059	0 in h x 0in w
Zone 0	August 2pm	7,000	84,000	120,375	17,456	137,831		87,208	5,457	4,059	0 in h x 0in w
1-Medical Clini	August 2pm	7,000	84,000	120,375	17,456	137,831		87,208	5,457	4,059	44-0 in dia
Plenum	August 5pm	0	0	0	0	0		0	0	0	

COMcheck Software Version 4.1.1.0

Envelope Compliance Certificate

Project Information

Energy Code:	2017 Florida Building Code, Energy Conservation
Project Title:	PALMS MEDICAL GROUP
Location:	Alachua, Florida
Climate Zone:	2a
Project Type:	Alteration
Vertical Glazing / Wall Area:	1%



Construction Site:
4784 W. HIGHWAY US 90
LAKE CITY, FL 32055

Owner/Agent:
PALMS MEDICAL GROUP

Designer/Contractor:
DAVID J. ROYAL
ARCHITECTUAL DESIGNER
LAKE CITY, FL 32055

Building Area	Floor Area
1-Health Care-Clinic : Nonresidential	7000

Envelope Assemblies

Post-Alteration Assembly	R-Value		Proposed		Max. Allowed	
	Cavity	Cont.	U-Factor	SHGC	U-Factor	SHGC
Roof 1: Metal Building, Screw Down: High Albedo Roof Exempt, [Bldg. Use 1 - Health Care-Clinic], Exemption: Framing cavity filled with insulation.	---	---	---	---	---	---
NORTH						
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Health Care-Clinic], Exemption: Framing cavity filled with insulation.	---	---	---	---	---	---
EAST						
Exterior Wall 1 copy 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Health Care-Clinic], Exemption: Framing cavity filled with insulation.	---	---	---	---	---	---
SOUTH						
Exterior Wall 1 copy 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Health Care-Clinic], Exemption: Framing cavity filled with insulation.	---	---	---	---	---	---
Door 1: Wood, Swinging, [Bldg. Use 1 - Health Care-Clinic]	---	---	0.330	---	0.610	---
WEST						
Exterior Wall 1 copy 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Health Care-Clinic], Exemption: Framing cavity filled with insulation.	---	---	---	---	---	---
Window 2: Metal Frame with Thermal Break:Fixed, Clear, Fixed, Fixed, [Bldg. Use 1 - Health Care-Clinic]	---	---	0.500	0.250	0.500	0.252
Window 2 copy 1: Metal Frame with Thermal Break:Fixed, Clear, Fixed, Fixed, [Bldg. Use 1 - Health Care-Clinic]	---	---	0.500	0.250	0.500	0.252
Door 2: Wood, Swinging, [Bldg. Use 1 - Health Care-Clinic]	---	---	0.330	---	0.610	---

(a) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Envelope PASSES

Envelope Compliance Statement

Compliance Statement: The proposed envelope alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2017 Florida Building Code, Energy Conservation requirements in COM*check* Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

John P. Ardis FL Contractor CAC 051478		08/15/2019
Name - Title	Signature	Date

COMcheck Software Version 4.1.1.0

Interior Lighting Compliance Certificate

Project Information

Energy Code:	2017 Florida Building Code, Energy Conservation
Project Title:	PALMS MEDICAL GROUP
Project Type:	Alteration

Construction Site:
4784 W. HIGHWAY US 90
LAKE CITY, FL 32055

Owner/Agent:
PALMS MEDICAL GROUP

Designer/Contractor:
DAVID J. ROYAL
ARCHITECTUAL DESIGNER
LAKE CITY, FL 32055

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Health Care-Clinic	7000	0.90	6300
		Total Allowed Watts =	6300

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Health Care-Clinic (7000 sq.ft.)				
LED 1: LED Panel 54W:	2	86	50	4300
LED 2: LED A Lamp 25W:	1	35	27	945
LED 3: Other:	2	2	0	1
			Total Proposed Watts =	5246

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2017 Florida Building Code, Energy Conservation requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

John P. Ardis FL Contractor CAC 051478
Name - Title


Signature

08/15/2019
Date

COMcheck Software Version 4.1.1.0

Exterior Lighting Compliance Certificate

Project Information

Energy Code:	2017 Florida Building Code, Energy Conservation
Project Title:	PALMS MEDICAL GROUP
Project Type:	Alteration
Exterior Lighting Zone	2 (Neighborhood business district)

Construction Site:
4784 W. HIGHWAY US 90
LAKE CITY, FL 32055

Owner/Agent:
PALMS MEDICAL GROUP

Designer/Contractor:
DAVID J. ROYAL
ARCHITECTUAL DESIGNER
LAKE CITY, FL 32055

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Main entry	3 ft of door	20	Yes	60
Other door (not main entry)	4 ft of door	20	Yes	80
			Total Tradable Watts (a) =	140
			Total Allowed Watts =	140
			Total Allowed Supplemental Watts (b) =	600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Main entry (3 ft of door width): Tradable Wattage				
LED 1: LED Other Fixture Unit 60W:	1	1	60	60
Other door (not main entry) (4 ft of door width): Tradable Wattage				
LED 2: LED Other Fixture Unit 60W:	1	1	60	60
			Total Tradable Proposed Watts =	120

Exterior Lighting PASSES

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2017 Florida Building Code, Energy Conservation requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

John P. Ardis FL Contractor CAC 051478
Name - Title

Signature

08/15/2019
Date

COMcheck Software Version 4.1.1.0

Mechanical Compliance Certificate

Project Information

Energy Code:	2017 Florida Building Code, Energy Conservation
Project Title:	PALMS MEDICAL GROUP
Location:	Alachua, Florida
Climate Zone:	2a
Project Type:	Alteration

Construction Site:
4784 W. HIGHWAY US 90
LAKE CITY, FL 32055

Owner/Agent:
PALMS MEDICAL GROUP

Designer/Contractor:
DAVID J. ROYAL
ARCHITECTUAL DESIGNER
LAKE CITY, FL 32055

Mechanical Systems List

Quantity	System Type & Description
4	HVAC System 1 (Single Zone):
	Cooling: 4 each - Split System, Capacity = 60 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: Humidity Requirements
	Proposed Efficiency = 13.00 SEER, Required Efficiency: 13.00 SEER
	Fan System: None

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2017 Florida Building Code, Energy Conservation requirements in COM*check* Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

John P. Ardis FL Contractor CAC 051478 — Name - Title

Signature

08/15/2019 — Date

COMcheck Software Version 4.1.1.0

Inspection Checklist

Energy Code: 2017 Florida Building Code, Energy Conservation

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.6 [PR17][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Provisions are made for metering individual tenant units. Feeder connectors (for feeder and branch circuits) sized in accordance with approved plans with maximum drop of 5% voltage drop total.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR8][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C402.4.1 [PR10][1]	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.1 [PR11][1]	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.2 [PR14][1]	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5.9.(1-4) [PR16][1]	Ceilings with vented dropped ceiling cavities over conditioned spaces have a continuous air barrier between the conditioned space and the vented unconditioned space and are sealed to the air barrier of the walls. Unvented dropped ceiling cavities over conditioned spaces without air barrier between the conditioned and unconditioned space are sealed from the exterior environment and adjacent spaces by a continuous air barrier and is sealed to the air barrier of the walls. Unconditioned spaces above separate tenancies contain dividing partitions between the tenancies to form a continuous air barrier that is sealed at the ceiling and roof. Building cavities designed to be air distribution system components are sealed according to the criteria for air ducts, plenums, etc. in Section C403.2.7.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2.1 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.5, C403.2.4.6 [FO9][3]	Snow/ice melting system sensors for future connection to controls. Freeze protection systems have automatic controls installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12][2]	Fenestration products rated in accordance with NFRC.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.1.3 [FR13][1]	Fenestration products are certified as to performance labels or certificates provided.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.3 [FR10][1]	Vertical fenestration SHGC value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.3, C402.4.3.4 [FR8][1]	Vertical fenestration U-Factor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.4 [FR14][2]	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1 [FR16][1]	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5.2, C402.5.4 [FR18][3]	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][3]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C402.5.5, C403.2.4.3 [ME3][3]	Stair and elevator shaft vents have motorized dampers that automatically close.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.12.1 [ME65][3]	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. *See the Mechanical Systems list for values*
C403.2.12.3 [ME117][2]	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.1.1 [ME60][2]	HVAC ducts and plenums insulated and sealed according to Florida Section C403.2.9, Table C403.2.9.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.2 [ME79][2]	All ducts, air handlers, filter boxes, building cavities, mechanical closets and enclosed support platforms that form the primary air containment passageways for air distribution systems are constructed and erected in accordance with Table C403.2.9.2 and with Chapter 6 of the Florida Building Code, Mechanical. Ducts are be constructed, braced, reinforced and installed to provide structural strength and durability. All transverse joints, longitudinal seams and fitting connections are securely fastened in accordance with the applicable standards of this section.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.1.2 [ME80][2]	Duct insulation is protected from damage but not limited to the following: 1. Insulation exposed to weather is suitable for outdoor service. Cellular foam insulation is protected or painted with a coating that is water retardant and provides shielding from solar radiation. 2. Insulation covering cooling ducts located outside the conditioned space is vapor retardant located outside the insulation, all penetrations and joints of which shall be sealed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.1.3 [ME81][2]	Additional insulation with vapor barrier is provided where the minimum duct insulation requirements of Section C403.2.9.1.1 are determined to be insufficient to prevent condensation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.13 [ME71][2]	Unenclosed spaces that are heated use only radiant heat.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.3 [ME55][2]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values*
C403.2.9.3 [ME10][2]	Ducts, air handlers, filter boxes, building cavities, mechanical closets and enclosed support platforms that form the primary air containment passageways for air distribution systems are sealed in accordance with the applicable criteria of this section and Table C403.2.9.2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.4 [ME78][2]	Cavities in framed spaces are not used to deliver air from or return air to the conditioning system unless they contain an air duct insert which is insulated in accordance with Section C403.2.9.1 and constructed and sealed in accordance with the requirements of Section C403.2.9.2 appropriate for the duct materials used.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.5 [ME76][2]	Air distribution systems are sized and designed in accordance with recognized engineering standards. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.6 [ME77][2]	Air-handling units not installed in attics of commercial buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.2.1 [ME53][3]	Air system balancing accomplished in a manner to first minimize throttling losses, then for fans with fan system power greater than 1 hp, fan speeds shall be adjusted to meet design flow conditions. Balancing procedures shall be in accordance with NEBB Procedural Standards, the AABC, National Standards, or equivalent procedures.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.6.1 [ME59][1]	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Systems with design outdoor air of less than 1200 cfm.
C403.2.6.2 [ME115][3]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.7 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.8 [ME116][3]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.4.6 [ME110][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Mechanical Systems list for values.*
C408.2.2.1 [ME53][3]	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME123][3]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.5.3 [ME124][3]	Condensing coils installed in cool air stream of another air-conditioning unit. The condensing coil of one air-conditioning unit shall not be installed in the cool air stream of another air-conditioning unit.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15][1]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1 [EL18][1]	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1, C405.2.2.3 [EL23][2]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.1 [EL22][2]	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Areas such as security or emergency areas that need continuous lighting.
C405.2.3 [EL16][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Spaces where health patient care is directly provided.
C405.2.3, C405.2.3.1, C405.2.3.2 [EL20][1]	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.3, C405.2.3.1, C405.2.3.3 [EL21][1]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.4 [EL4][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.4 [EL8][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.5 [EL25][null]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Lighting specific to covered vehicle egress where required for safety, security or eye adaptation.
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3][1]	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.1 [IN10][2]	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.2.1 [IN14][2]	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C402.2.1 [IN17][3]	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.2.3 [IN6][1]	Above-grade wall insulation R-value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.6 [IN18][3]	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C402.3 [IN5][3]	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 and thermal emittance >= 0.75 or 3-year-aged solar reflectance index >= 64.0.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.2.2 [IN2][1]	Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1.1 [IN1][1]	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.3, C408.2.5.3 [FI8][3]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.4 [FI56][3]	Minimum one humidity control device per installed humidification/dehumidification system. Controls prevent simultaneous operation of humidification and dehumidification equipment.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5.3 [FI51][3]	Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms are sealed and insulated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5.6 [FI37][1]	Weatherseals installed on all loading dock cargo doors.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C402.5.8 [FI26][3]	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.1 [FI50][3]	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or ACCA Manual N or by an approved equivalent computational procedure. Design loads shall be attached to the code compliance form submitted to the building department when the building is permitted or, in the event the mechanical permit is obtained at a later time, the sizing calculation shall be submitted with the application for the mechanical permit.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.2 [FI27][3]	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C403.2.4.1.2 [FI38][3]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.3 [FI20][3]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2 [FI39][3]	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.2 [FI54][3]	Construction documents require that a written balance report be provided to the building owner or rep for HVAC systems serving zones with total condition area > 5,000 sqft. Air distribution systems shall be tested, adjusted, and balanced by a licensed engineer or certified company.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.1, C403.2.4.2.2 [FI40][3]	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values*
C405.5.1 [FI19][1]	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values*
C408.2.1 [FI28][1]	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.3.1 [FI31][1]	HVAC equipment has been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.3.2 [FI10][1]	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.4 [FI29][1]	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.5.1 [FI7][3]	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.3 [FI43][1]	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.4 [FI30][1]	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

August 16, 2019

VIA ELECTRONIC MAIL

Jim Miller, VP
Palms Medical Group
23343 NW County Road 236
High Springs, FL 32643

Re: Site & Development Plan (SDP 19 10) "Palms Medical"
Approval Letter

Dear Mr. Miller,

The Minor Site & Development Application you submitted has been reviewed in accordance with Section 14.13.6 "Minor Site and Development Plan Approval" of the Land Development Regulations ("LDRs"). The Minor Site and Development Plan Application, SDP 19 10, has been found in compliance with the County's Comprehensive Plan and Land Development Regulations and is hereby approved.

If you have any questions, please do not hesitate to contact me at bstubbs@columbiacountyfla.com or (386) 754-7119.

Sincerely,

Brandon M. Stubbs
Community Development Coordinator
Land Development Regulation Admin.

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for
FILE COPY
Code Compliance
PLANS EXAMINER