Botanical Gardens

Title / Summary Report

City of PSL_Botanical

Location: West Palm Beach, Florida

	Alternative - 1	Alternative - 2
Alternative Description	Alternative - 1	PSL_Botanical_ECM_Lighting
Building Template	1-2 Story	1-2 Story
Building Floor Area	8,100 ft²	8,100 ft²
System #1	Packaged Terminal Air Conditioner	Packaged Terminal Air Conditioner
Max Clg Load	32.3 ton	30.7 ton
Max Htg Load	138.2 MBh	137.7 MBh
System #2		
Max Clg Load		
Max Htg Load		
Opt Ventilation Clg Load		
Opt Ventilation Htg Load		
Total Building Clg Load	32.3 ton	30.7 ton
Total Building Htg Load	138.2 MBh	137.7 MBh
Plant #1		
Clg Equipment Type #1	Default air-cooled unitary	Default air-cooled unitary
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type	Default electric resistance	Default electric resistance
Plant #2		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
MAU Plant #3		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
Building Clg Coil Load	69,229 ton·hrs/year	60,506 ton·hrs/year
Building Htg Coil Load	-172 kBtu/year	-60 kBtu/year
Building Energy Usage	77,195 Btu/ft²·year	70,597 Btu/ft²·year
Building Energy Cost	1.988 $/ft²·year	1.821 $/ft²·year

	Alternative - 3
Alternative Description	Increase Temeprature Setpoint 2 degrees
Building Template	1-2 Story
Building Floor Area	8,100 ft²
System #1	Packaged Terminal Air Conditioner
Max Clg Load	29.2 ton
Max Htg Load	137.3 MBh
System #2	
Max Clg Load	
Max Htg Load	
Opt Ventilation Clg Load	
Opt Ventilation Htg Load	
Total Building Clg Load	29.2 ton
Total Building Htg Load	137.3 MBh
Plant #1	
Clg Equipment Type #1	Default air-cooled unitary
Clg Equipment Type #2	
Clg Equipment Type #3	
Htg Equipment Type	Default electric resistance
Plant #2	
Clg Equipment Type #1	
Clg Equipment Type #2	
Clg Equipment Type #3	
Htg Equipment Type	
MAU Plant #3	
Clg Equipment Type #1	
Clg Equipment Type #2	
Clg Equipment Type #3	
Htg Equipment Type	
Building Clg Coil Load	52,499 ton·hrs/year
Building Htg Coil Load	-73 kBtu/year
Building Energy Usage	65,207 Btu/ft²·year
Building Energy Cost	1.691 $/ft²·year

Echo Airside Parameters Report

City of PSL_Botanical

- Airside Criteria - System - 1	Alt - 1	Alt - 2	Alt - 3
	Packaged Terminal Air Conditioner	**Packaged Terminal Air Conditioner**	**Packaged Terminal Air Conditioner**
Clg Supply Air DB	55.0 °F	55.0 °F	55.0 °F
Ventilation deck Location			
VAV Minimum Airflow %			
Has Makeup-Air Unit	No	No	No
MAU Clg Supply Air DB	N/A	N/A	N/A
MAU Htg Supply Air DB	N/A	N/A	N/A
EMS/BAS Options			
Economizer Type	None	None	None
Economizer On Point	N/A	N/A	N/A
Heat Recovery Type	None (default)	None (default)	None (default)
Heat Recovery Effectiveness	N/A	N/A	N/A
Using Supply Air Temp Reset	No	No	No
Using Optimum Start	No	No	No
Using Optimum Stop	No	No	No
Fan Cycling Schedule	No fan cycling	No fan cycling	No fan cycling
Fans			
Primary Fan Type	Fan coil supply fan	Fan coil supply fan	Fan coil supply fan
Primary Fan SP	0.75 in. wg	0.75 in. wg	0.75 in. wg
Primary Fan Energy Rate	0.0002 kW/Cfm	0.0002 kW/Cfm	0.0002 kW/Cfm
Secondary Fan Type	None	None	None
Secondary Fan SP	N/A	N/A	N/A
Secondary Fan Energy Rate	N/A	N/A	N/A
System Exh Fan Type	FC Centrifugal const vol	FC Centrifugal const vol	FC Centrifugal const vol
System Exh Fan SP	0.00 in. wg	0.00 in. wg	0.00 in. wg
System Exh Fan Energy Rate	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg
Return Fan Type	None	None	None
Return Fan SP	N/A	N/A	N/A
Return Fan Energy Rate	N/A	N/A	N/A
Makeup-Air Fan Type	None	None	None
Makeup-Air Fan SP	N/A	N/A	N/A
Makeup-Air Fan Energy Rate	N/A	N/A	N/A

Echo Building Parameters Report

City of PSL_Botanical

Weather Parameters

Location: West Palm Beach, Florida
Summer Dry Bulb: 92.3°F
Summer Wet Bulb: 79.2°F
Winter Dry Bulb: 45.0°F

- Building Criteria -	Alt - 1	Alt - 2	Alt - 3
Category	Office Buildings	Office Buildings	Office Buildings
Template	1-2 Story	1-2 Story	1-2 Story
Length	90.0 ft	90.0 ft	90.0 ft
Width	90.0 ft	90.0 ft	90.0 ft
Floors	1	1	1
Floor to Floor Height	18.0 ft	18.0 ft	18.0 ft
Plenum Height	2.0 ft	2.0 ft	2.0 ft
Perimeter depth	12.0 ft	12.0 ft	12.0 ft
Orientation	North	North	North
Occupied Clg Setpoint	72.0 °F	74.0 °F	76.0 °F
Occupied Htg Setpoint	68.0 °F	68.0 °F	68.0 °F
Unoccupied Clg Setpoint	77.0 °F	77.0 °F	77.0 °F
Unoccupied Htg Setpoint	65.0 °F	65.0 °F	65.0 °F
Relative Humidity Setpoint	50.0 %	50.0 %	50.0 %
Envelope Loads			
Front Glass Percentage	25.0 %	25.0 %	25.0 %
Back Glass Percentage	25.0 %	25.0 %	25.0 %
Left Glass Percentage	25.0 %	25.0 %	25.0 %
Right Glass Percentage	5.0 %	5.0 %	5.0 %
Skylight Glass Percentage	0.0 %	0.0 %	0.0 %
Wall Type	8" LW Block, 3" Ins	8" LW Block, 3" Ins	8" LW Block, 3" Ins
Wall U-Value	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F
Glass Type	Double Coated 1/4"	Double Coated 1/4"	Double Coated 1/4"
Glass U-Value	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F
Glass Shading Coefficient	0.550	0.550	0.550
Roof Type	Steel Sheet, 4" Ins	Steel Sheet, 4" Ins	Steel Sheet, 4" Ins
Roof U-Value	0.0681 Btu/h·ft²·°F	0.0681 Btu/h·ft²·°F	0.0681 Btu/h·ft²·°F
Skylight Type	Double Clear 1/4"	Double Clear 1/4"	Double Clear 1/4"
Skylight U-Value	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F
Skylight Shading Coefficient	0.820	0.820	0.820
Internal Loads			
People Type	General Office Space	General Office Space	General Office Space
People Density	143.0 sq ft/person	143.0 sq ft/person	143.0 sq ft/person
People Sensible Energy Rate	250.0 Btu/h	250.0 Btu/h	250.0 Btu/h
People Latent Energy Rate	200.0 Btu/h	200.0 Btu/h	200.0 Btu/h
Lighting Type	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space
Lighting Energy Rate	1.1 Watt/sq ft	1.1 Watt/sq ft	1.1 Watt/sq ft
Lighting % Load to Plenum	20.0 %	20.0 %	20.0 %
Misc Equipment Type	Std Office Equipment	Std Office Equipment	Std Office Equipment
Misc Energy Rate	0.25 Watt/sq ft	0.25 Watt/sq ft	0.25 Watt/sq ft
Misc Load to Room	100 %	100 %	100 %
Misc Load to Plenum	0 %	0 %	0 %
Ventilation			
Ventilation Type	General Office Space	General Office Space	General Office Space
Ventilation Clg Rate	0.86 air changes/hr	0.86 air changes/hr	0.86 air changes/hr
Ventilation Htg Rate	0.86 air changes/hr	0.86 air changes/hr	0.86 air changes/hr
Infiltration Type	Neutral, Loose Const.	Neutral, Loose Const.	Neutral, Loose Const.
Infiltration Clg Rate	2.30 air changes/hr	2.30 air changes/hr	2.30 air changes/hr
Infiltration Htg Rate	2.30 air changes/hr	2.30 air changes/hr	2.30 air changes/hr
Base Utilities			
Base Utiltiy Energy Rate	2.00 kW	2.00 kW	2.00 kW
Base Utility Energy Type	Electricity	Electricity	Electricity
DHW Energy Rate	0.00 Mbh	0.00 Mbh	0.00 Mbh
DHW Energy Type	Gas	Gas	Gas
DHW Entering Water Temp			
DHW Leaving Water Temp			

Built By:
Dataset Name: CITYOF~1

System Analyzer v 6.1.0.0 calculated on 6/4/2012 12:16:05PM

Echo Plant Parameters Report

- Clg Plant Criteria - Plant # 1

	Alt - 1	Alt - 2	Alt - 3
	Air-cooled unitary	Air-cooled unitary	Air-cooled unitary
Use Common Heating Plant	No	No	No
Secondary Dist Pump Type	None	None	None
Sec Dist Pump FL Rate			
Equipment - 1			
	Default air-cooled unitary	Default air-cooled unitary	Default air-cooled unitary
Sequencing Type			
Clg Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity
Full Load Energy Rate	1.380 kW/ton	1.380 kW/ton	1.380 kW/ton
Primary Chw Pump Type	None	None	None
Primary Chw Pump FL Rate	0.0 ft water	0.0 ft water	0.0 ft water
Condenser Pump Type	None	None	None
Condenser Pump FL Rate	0.00 ft water	0.00 ft water	0.00 ft water
Heat Rejection Type	Condenser fan for Heat Pump	Condenser fan for Heat Pump	Condenser fan for Heat Pump
Heat Rejection Energy Rate	0.120 kW/ton	0.120 kW/ton	0.120 kW/ton
Heat Recovery Capacity			
Heat Recovery Energy Rate			
Thermal Storage Type	None	None	None
Tank Size			
Tank Charging Capacity			
Tank Charging Energy Rate			
Max Chilled Water Reset	0.0 °F	0.0 °F	0.0 °F
Free Cooling Type	None	None	None
Load Shedding Economizer	No	No	No
Evaporative Precooling	No	No	No

Echo Plant Parameters Report

- Htg Plant Criteria- Plant # 1	Alt - 1	Alt - 2	Alt - 3
	Electric resistance	Electric resistance	Electric resistance
Heating Equipment Type	Default electric resistance	Default electric resistance	Default electric resistance
Htg Equipment Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity
Htg Full Load Energy Rate	100.000 Percent efficient	100.000 Percent efficient	100.000 Percent efficient
Heating Pump Type	None	None	None
Heating Pump FL Energy Rate			

Echo Schedules Report

City of PSL_Botanical

Alt1, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt1, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt1, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt1, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt1, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt1, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt2, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Echo Schedules Report

City of PSL_Botanical

Alt2, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt2, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt3, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt3, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt3, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt3, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Echo Schedules Report

City of PSL_Botanical

Alt3, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	Start time	End time	Percentage
	1	24	0
Daytype: Sun	Start time	End time	Percentage
	1	24	0

Alt3, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	Start time	End time	Percentage
	1	24	0
Daytype: Sun	Start time	End time	Percentage
	1	24	0

Florida Light and Power_GSD1 - GSD 1

Time-of-Day

Season: Primary

Daytype: Weekday	Start time	End time	Value
	1	24	On peak
Daytype: Sat	Start time	End time	Value
	1	24	On peak
Daytype: Sun	Start time	End time	Value
	1	24	On peak

Office Buildings, 1-2 Story

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	5	0
	5	18	100
	18	24	0
Daytype: Sat	Start time	End time	Percentage
	1	5	0
	5	18	100
	18	24	0
Daytype: Sun	Start time	End time	Percentage
	1	5	0
	5	18	100
	18	24	0

Office Buildings, 1-2 Story - 1

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	5	0
	5	18	35
	18	24	0
Daytype: Sat	Start time	End time	Percentage
	1	5	0
	5	18	35
	18	24	0
Daytype: Sun	Start time	End time	Percentage
	1	5	0
	5	18	35
	18	24	0

Office Buildings, 1-2 Story - 2

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	5	0
	5	18	100
	18	24	0
Daytype: Sat	Start time	End time	Percentage
	1	5	0
	5	18	100
	18	24	0
Daytype: Sun	Start time	End time	Percentage
	1	5	0
	5	18	100
	18	24	0

Echo Schedules Report

City of PSL_Botanical

Office Buildings, 1-2 Story - 2 - 1

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	5	0
5	18	100
18	24	0

Daytype: Sat

Start time	End time	Percentage
1	5	0
5	6	50
6	16	100
16	17	50
17	24	0

Daytype: Sun

Start time	End time	Percentage
1	5	0
5	6	50
6	16	100
16	17	50
17	24	0

Office Buildings, 1-2 Story - 2 - 2

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	24	100

Daytype: Sat

Start time	End time	Percentage
1	24	100

Daytype: Sun

Start time	End time	Percentage
1	24	100

Office Buildings, 1-2 Story - 2 - 3

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	24	100

Daytype: Sat

Start time	End time	Percentage
1	24	100

Daytype: Sun

Start time	End time	Percentage
1	24	100

Office Buildings, 1-2 Story - 2 - 4

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	5	0
5	18	100
18	24	0

Daytype: Sat

Start time	End time	Percentage
1	5	0
5	18	100
18	24	0

Daytype: Sun

Start time	End time	Percentage
1	5	0
5	18	100
18	24	0

Utility Cost Summary Report

Monthly Utility Costs

Alternative - 1

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	554	473	745	848	931	1,053	1,191	1,224	1,138	904	736	700
	Off Pk ($)	16	16	16	16	16	16	16	16	16	16	16	16
	Sub Total($)	**571**	**490**	**761**	**864**	**947**	**1,070**	**1,208**	**1,240**	**1,155**	**921**	**752**	**716**
Electric Demand	On Pk ($)	281	289	402	455	478	532	560	591	544	480	435	359
	Sub Total($)	**281**	**289**	**402**	**455**	**478**	**532**	**560**	**591**	**544**	**480**	**435**	**359**
Monthly Total ($)		**852**	**779**	**1,164**	**1,319**	**1,426**	**1,601**	**1,768**	**1,831**	**1,699**	**1,401**	**1,187**	**1,076**

Alternative - 2

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	497	432	668	766	850	978	1,110	1,143	1,053	822	662	620
	Off Pk ($)	16	16	16	16	16	16	16	16	16	16	16	16
	Sub Total($)	**513**	**448**	**684**	**783**	**867**	**994**	**1,126**	**1,160**	**1,069**	**839**	**679**	**636**
Electric Demand	On Pk ($)	252	247	354	403	444	500	529	559	515	442	377	332
	Sub Total($)	**252**	**247**	**354**	**403**	**444**	**500**	**529**	**559**	**515**	**442**	**377**	**332**
Monthly Total ($)		**766**	**695**	**1,038**	**1,186**	**1,311**	**1,495**	**1,655**	**1,719**	**1,584**	**1,281**	**1,055**	**969**

Alternative - 3

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	459	403	600	690	778	917	1,052	1,085	986	744	596	558
	Off Pk ($)	16	16	16	16	16	16	16	16	16	16	16	16
	Sub Total($)	**476**	**419**	**617**	**706**	**794**	**934**	**1,068**	**1,102**	**1,002**	**760**	**613**	**574**
Electric Demand	On Pk ($)	237	235	330	367	400	474	504	533	490	399	354	311
	Sub Total($)	**237**	**235**	**330**	**367**	**400**	**474**	**504**	**533**	**490**	**399**	**354**	**311**
Monthly Total ($)		**712**	**654**	**947**	**1,074**	**1,194**	**1,408**	**1,573**	**1,634**	**1,492**	**1,159**	**966**	**885**

Built By:
Dataset Name: CITYOF~1

System Analyzer v 6.1.0.0 calculated on 6/4/2012 12:16:05PM

Equipment Energy Consumption Report

City of PSL_Botanical

Alternative - 1

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	1,488	1,344	1,488	1,440	1,488	1,440	1,488	1,488	1,440	1,488	1,440	1,488	17,520
Lights	Elec(kWh)	3,382	3,055	3,417	3,267	3,399	3,302	3,364	3,417	3,267	3,399	3,284	3,364	39,916
MISC LD	Elec(kWh)	816	737	816	790	816	790	816	816	790	816	790	816	9,609
Fans:														
System 1	Elec(kWh)	1,722	1,555	1,722	1,667	1,722	1,667	1,722	1,722	1,667	1,722	1,667	1,722	20,276
Cooling:														
P1 Default air-cooled unitary	Elec(kWh)	1,953	1,307	4,852	6,695	7,742	9,836	11,804	12,265	11,186	7,322	4,939	4,207	84,108
Condenser fan for Heat Pump	Elec(kWh)	274	183	665	901	1,036	1,292	1,537	1,591	1,462	985	674	577	11,178
Cooling accessories	Elec(kWh)	38	27	40	39	44	53	57	58	57	51	42	40	548
Heating:														
P1 Default electric resistance	Elec(kWh)	0	50	0	0	0	0	0	0	0	0	0	0	50

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	9,673	8,258	13,001	14,797	16,248	18,379	20,789	21,357	19,868	15,783	12,836	12,214	183,205
Electrical Demand	Peak (kW)	29	30	41	47	49	55	58	61	56	49	45	37	61

Alternative - 2

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	1,488	1,344	1,488	1,440	1,488	1,440	1,488	1,488	1,440	1,488	1,440	1,488	17,520
Lights	Elec(kWh)	3,288	2,971	3,323	3,177	3,306	3,211	3,271	3,323	3,177	3,306	3,194	3,271	38,817
MISC LD	Elec(kWh)	816	737	816	790	816	790	816	816	790	816	790	816	9,609
Fans:														
System 1	Elec(kWh)	1,474	1,332	1,474	1,427	1,474	1,427	1,474	1,474	1,427	1,474	1,427	1,474	17,360
Cooling:														
P1 Default air-cooled unitary	Elec(kWh)	1,378	975	3,963	5,724	6,791	8,954	10,836	11,314	10,154	6,353	4,094	3,280	73,816
Condenser fan for Heat Pump	Elec(kWh)	193	136	541	769	907	1,174	1,409	1,465	1,326	853	557	449	9,780
Cooling accessories	Elec(kWh)	36	20	46	44	58	67	69	70	65	59	53	40	627
Heating:														
P1 Default electric resistance	Elec(kWh)	0	18	0	0	0	0	0	0	0	0	0	0	18

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	8,674	7,532	11,651	13,369	14,840	17,064	19,364	19,950	18,378	14,349	11,555	10,820	167,546
Electrical Demand	Peak (kW)	26	25	36	42	46	51	54	58	53	46	39	34	58

Built By:

Dataset Name: CITYOF~1

Equipment Energy Consumption Report

City of PSL_Botanical

Alternative - 3

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	1,488	1,344	1,488	1,440	1,488	1,440	1,488	1,488	1,440	1,488	1,440	1,488	17,520
Lights	Elec(kWh)	3,288	2,971	3,323	3,177	3,306	3,211	3,271	3,323	3,177	3,306	3,194	3,271	38,817
MISC LD	Elec(kWh)	816	737	816	790	816	790	816	816	790	816	790	816	9,609
Fans:														
System 1	Elec(kWh)	1,279	1,155	1,279	1,237	1,279	1,237	1,279	1,279	1,237	1,279	1,237	1,279	15,054
Cooling:														
P1 Default air-cooled unitary	Elec(kWh)	975	688	3,092	4,711	5,840	8,188	10,116	10,591	9,278	5,313	3,244	2,486	64,521
Condenser fan for Heat Pump	Elec(kWh)	136	96	419	629	776	1,070	1,313	1,367	1,209	710	439	340	8,502
Cooling accessories	Elec(kWh)	30	22	58	59	67	72	74	74	72	68	60	52	709
Heating:														
P1 Default electric resistance	Elec(kWh)	0	21	0	0	0	0	0	0	0	0	0	0	21

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	8,012	7,034	10,474	12,043	13,571	16,008	18,357	18,937	17,202	12,979	10,404	9,732	154,753
Electrical Demand	Peak (kW)	24	24	34	38	41	49	52	55	50	41	36	32	55

Built By:

Dataset Name: CITYOF~1

Economic Comparison Report

Cost Summary

Alternative Number	Installed Cost	First Year Utility Cost	Final Year Utility Cost	First Year Maint. Cost	Final Year Maint. Cost	Life Cycle Cost
1	$0	$16,103	$40,690	$0	$0	$195,036
2	$0	$14,752	$37,279	$0	$0	$178,682
3	$0	$13,698	$34,613	$0	$0	$165,907

PAL Building

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1

Cooling Type: Default air-cooled unitary

CP1

Operating Mode	Capacity	Energy Rate
Cooling:		1.1000 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type — Full Load Consumption

Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for Heat Pump
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt1 Plt1 Eq1 City of PSL_PAL_

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F

Equipment Options

Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No

Energy source:
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	0°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001

Heating Type: Electric Resistance Heat

HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt1 - City of PSL_PAL_A_R
Description:
Demand limiting priority: 0
Schedule: SA-Base Util - Alt1 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: CP1
Equipment tag: All
Type: None
Description:
Schedule: Off (0%)
Energy: 0.00 kW

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1 — Cooling Type: Default air-cooled unitary — CP1

Operating Mode	Capacity	Energy Rate
Cooling:		1.1500 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type — Full Load Consumption
Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for Heat Pump
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt2 Plt1 Eq1 City of PSL_PAL_

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F

Equipment Options

Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No

Energy source:
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	0°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001 — Heating Type: Electric Resistance Heat — HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt2 - City of PSL_PAL_A_R
Description:
Demand limiting priority: 0
Schedule: SA-Base Util - Alt2 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: CP1
Equipment tag: All
Type: None
Description:
Schedule: Off (0%)
Energy: 0.00 kW

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1

Cooling Type: Default air-cooled unitary — CP1

Operating Mode	Capacity	Energy Rate
Cooling:		1.1500 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type
Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Full Load Consumption

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for Heat Pump
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt3 Plt1 Eq1 City of PSL_PAL_

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F

Equipment Options

Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No

Energy source:
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	0°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001

Heating Type: Electric Resistance Heat — HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt3 - City of PSL_PAL_A_R
Description:
Demand limiting priority: 0
Schedule: SA-Base Util - Alt3 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: CP1
Equipment tag: All
Type: None
Description:
Schedule: Off (0%)
Energy: 0.00 kW

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1 — Cooling Type: Split System-RAUC-20+ Ton-Scroll — CP1

Operating Mode	Capacity	Energy Rate
Cooling:		0.9830 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type — Full Load Consumption
Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for MZ rooftop
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt3 Plt1 Eq1 City of PSL_PAL_

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F

Equipment Options

Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No

Energy source: HP1
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	10,000°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001 — Heating Type: Electric Resistance Heat — HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt3 - City of PSL_PAL_A_R
Description:
Demand limiting priority: 0
Schedule: SA-Base Util - Alt3 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: HP1
Equipment tag: All
Type: None
Description:
Schedule: Off (0%)
Energy: 0.00 kW

Entered Values

TRACE® 700 version 6.2.7

By Honeywell

Project Name: Port St Lucie_PAL
Dataset Name: C:\USERS\E278427\APPDATA\LOCALLOW\EROOM\EROOM CLIENT\V7\EDITINGFILES\PSL_PAL_A.TRC
Location:
Building Owner: Port St Lucie
Program User:
Company:
Comments:

Cooling Design Period:	January thru December
Peak Hour Override:	0
Daylight Savings Period:	
Summer Period:	
Cooling Methodology:	CLTD-CLF (ASHRAE TFM)
Heating Methodology:	UATD
Infiltration Methodology:	Vary with wind speed
Outside Film Methodology:	Vary with wind speed
Terrain Methodology:	Center of a large city
Room Circ Rate:	Medium
Wall Load To Plenum:	YES
Building Orientation:	0 degrees from north
Simulation Hours:	Reduced year
Calendar Code:	Standard (1978)
Energy Simulation Period:	January thru December

Location:	West Palm Beach, Florida	
Summer Design Dry Bulb:	92.30	°F
Summer Design Wet Bulb:	79.20	°F
Winter Design Dry Bulb:	45.00	°F
Summer Clearness Number:	0.90	
Winter Clearness Number:	0.95	
Summer Ground Reflectance:	0.20	
Winter Ground Reflectance:	0.20	
Carbon Dioxide Level:	400	ppm
Force VAV Min => Nominal Ventilation at Design:	No	
Allow Energy Recovery/Transfer at Design:	Yes	
Retest Design Peaks:	Yes	
Calculate Building Block Loads:	No	

ENTERED VALUES

ROOM ASSIGNMENTS

By Honeywell

ASSIGNED ROOMS

Description
System 1
System 1
System 1
System 1
Back (NW)
Back (NW)
Back (NW)
Back (NW)
Front (SE)
Front (SE)
Front (SE)
Front (SE)
Interior
Interior
Interior
Interior
Left (SW)
Left (SW)
Left (SW)
Left (SW)
Right (NE)
Right (NE)
Right (NE)
Right (NE)

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent: 275 Btu/h
People Schedule: SA-People - Alt1 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt1 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt1 City of PSL_PAL_A_Rev1
Lighting Amount: 1.4 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt1 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt1 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent: 275 Btu/h
People Schedule: SA-People - Alt1 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt1 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt1 City of PSL_PAL_A_Rev1
Lighting Amount: 1.4 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt1 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt1 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None
Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt1 City of PSL_PAL_A_Rev1
Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt1 - City of PSL_PAL_A_Rev1
Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt1 City of PSL_PAL_A_Rev1
Lighting Amount: 1.4 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt1 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt1 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None
Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt1 City of PSL_PAL_A_Rev1
Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt1 - City of PSL_PAL_A_Rev1
Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt1 City of PSL_PAL_A_Rev1
Lighting Amount: 1.4 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt1 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt1 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Right (NE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt1 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt1 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt1 City of PSL_PAL_A_Rev1
Lighting Amount: 1.4 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt1 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt1 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt2 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt2 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt2 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt2 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt2 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt2 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt2 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt2 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt2 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt2 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt2 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt2 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt2 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt2 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt2 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt2 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt2 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt2 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt2 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt2 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Right (NE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area:	1,056 ft²	Flr-Flr Height:	25.0 ft
Plenum Height:	3.0 ft	Height Above Flr:	
Slab Cnstr Type:	4" LW Concrete		
Room Mass:	Time delay based on actual mass		
Ceiling R-Value:	1.786 hr·ft²·°F/Btu		
Is There Carpet?:	YES		
Design Clg DB / Drift Point:	72.0 °F / 76.0 °F		
Design Htg DB / Drift Point:	72.0 °F / 65.0 °F		
Design Relative Humidity:	50 %		
Moisture Capacitance:	Medium		
Clg Tstat:	PSL_PAL_Gym_Old		
Htg Tstat:	None		
Thermostat Location:	Room	Floor Multiplier:	1
Humidistat Location:	Room	Room Multiplier:	1
CO2 Sensor Location:	None		
Room Type:	Conditioned		

PEOPLE

People Type:	Warehouse
# of People:	3 People
People Sensible:	275 Btu/h
People Latent :	275 Btu/h
People Schedule:	SA-People - Alt2 City of PSL_PAL_A_Rev1
Workstation:	1.0 workstation/person

LIGHTS

Lighting Type:	SA-Light - Alt2 - City of PSL_PAL_A_Rev1
Fixture Type:	INCAND
% Load to RA:	0 %
Lighting Schedule:	SA-Lights - Alt2 City of PSL_PAL_A_Rev1
Lighting Amount:	0.7 W/sq ft
Ballast Factor:	1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt2 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.40 air changes/hr	0.40 air changes/hr
Infil Schedule:	SA-Infil - Alt2 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area:	516 ft²	Flr-Flr Height:	25.0 ft
Plenum Height:	3.0 ft	Height Above Flr:	
Slab Cnstr Type:	4" LW Concrete		
Room Mass:	Time delay based on actual mass		
Ceiling R-Value:	1.786 hr·ft²·°F/Btu		
Is There Carpet?:	YES		
Design Clg DB / Drift Point:	72.0 °F / 76.0 °F		
Design Htg DB / Drift Point:	72.0 °F / 65.0 °F		
Design Relative Humidity:	50 %		
Moisture Capacitance:	Medium		
Clg Tstat:	PSL_PAL_Gym_Old		
Htg Tstat:	None		
Thermostat Location:	Room	Floor Multiplier:	1
Humidistat Location:	Room	Room Multiplier:	1
CO2 Sensor Location:	None		
Room Type:	Conditioned		

PEOPLE

People Type:	Warehouse
# of People:	3 People
People Sensible:	275 Btu/h
People Latent :	275 Btu/h
People Schedule:	SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation:	1.0 workstation/person

LIGHTS

Lighting Type:	SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type:	INCAND
% Load to RA:	0 %
Lighting Schedule:	SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount:	0.7 W/sq ft
Ballast Factor:	1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area:	516 ft²	Flr-Flr Height:	25.0 ft
Plenum Height:	3.0 ft	Height Above Flr:	
Slab Cnstr Type:	4" LW Concrete		
Room Mass:	Time delay based on actual mass		
Ceiling R-Value:	1.786 hr·ft²·°F/Btu		
Is There Carpet?:	YES		
Design Clg DB / Drift Point:	72.0 °F / 76.0 °F		
Design Htg DB / Drift Point:	72.0 °F / 65.0 °F		
Design Relative Humidity:	50 %		
Moisture Capacitance:	Medium		
Clg Tstat:	PSL_PAL_Old		
Htg Tstat:	None		
Thermostat Location:	Room	Floor Multiplier:	1
Humidistat Location:	Room	Room Multiplier:	1
CO2 Sensor Location:	None		
Room Type:	Conditioned		

PEOPLE

People Type:	Warehouse
# of People:	3 People
People Sensible:	275 Btu/h
People Latent :	275 Btu/h
People Schedule:	SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation:	1.0 workstation/person

LIGHTS

Lighting Type:	SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type:	INCAND
% Load to RA:	0 %
Lighting Schedule:	SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount:	0.7 W/sq ft
Ballast Factor:	1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Right (NE) **Zone Description: No Zone** **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Area ft²	Shade Coef	U Value Btu/h·ft²·°F	External Shading	Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Area ft²	Shade Coef	U Value Btu/h·ft²·°F	External Shading	Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Right (NE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area:	1,056 ft²	Flr-Flr Height:	25.0 ft
Plenum Height:	3.0 ft	Height Above Flr:	
Slab Cnstr Type:	4" LW Concrete		
Room Mass:	Time delay based on actual mass		
Ceiling R-Value:	1.786 hr·ft²·°F/Btu		
Is There Carpet?:	YES		
Design Clg DB / Drift Point:	72.0 °F / 76.0 °F		
Design Htg DB / Drift Point:	72.0 °F / 65.0 °F		
Design Relative Humidity:	50 %		
Moisture Capacitance:	Medium		
Clg Tstat:	PSL_PAL_Gym_Old		
Htg Tstat:	None		
Thermostat Location:	Room	Floor Multiplier:	1
Humidistat Location:	Room	Room Multiplier:	1
CO2 Sensor Location:	None		
Room Type:	Conditioned		

PEOPLE

People Type:	Warehouse
# of People:	3 People
People Sensible:	275 Btu/h
People Latent :	275 Btu/h
People Schedule:	SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation:	1.0 workstation/person

LIGHTS

Lighting Type:	SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type:	INCAND
% Load to RA:	0 %
Lighting Schedule:	SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount:	0.7 W/sq ft
Ballast Factor:	1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	
Use system default outside air reset:	Yes		Underfloor plenum height:	0.0 ft
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
			Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	
Use system default outside air reset:	Yes		Underfloor plenum height:	0.0 ft
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
			Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)	Supply air path / duct location:	Return Air
Max reset:		Space convective gains to occupied layer:	
Use system default outside air reset:	Yes	Underfloor plenum height:	0.0 ft
		Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
		Upstream nominal leakage fraction:	0 %
		Downstream constant leakage fraction:	0 %
		Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)	Supply air path / duct location:	Return Air
Max reset:		Space convective gains to occupied layer:	
Use system default outside air reset:	Yes	Underfloor plenum height:	0.0 ft
		Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
		Upstream nominal leakage fraction:	0 %
		Downstream constant leakage fraction:	0 %
		Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 1

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Right (NE)	NE Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Front (SE)	SE Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Left (SW)	SW Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Back (NW)	NW Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area	**7,750.0**	**500.0**

Project Name: Port St Lucie_PAL
Dataset Name: C:\USERS\E278427\APPDATA\LOCALLOW\EROOM\EROOM

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Alternative - 1 Entered Values - Rooms Page 1 of 4

ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 2

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	External Shading	Internal Shading
Right (NE)	NE Wall	2,500.0	0	8* LW Block, 3* Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4*	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	External Shading	Internal Shading
Front (SE)	SE Wall	1,375.0	0	8* LW Block, 3* Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	External Shading	Internal Shading
Left (SW)	SW Wall	2,500.0	0	8* LW Block, 3* Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4*	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	External Shading	Internal Shading
Back (NW)	NW Wall	1,375.0	0	8* LW Block, 3* Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area	**7,750.0**		**500.0**

ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 3

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Area ft²	SHGC	U Value Btu/h·ft²·°F	External Shading	Internal Shading
Right (NE)	NE Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Area ft²	SHGC	U Value Btu/h·ft²·°F	External Shading	Internal Shading
Front (SE)	SE Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Area ft²	SHGC	U Value Btu/h·ft²·°F	External Shading	Internal Shading
Left (SW)	SW Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Area ft²	SHGC	U Value Btu/h·ft²·°F	External Shading	Internal Shading
Back (NW)	NW Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area **7,750.0** **500.0**

Project Name: Port St Lucie_PAL
Dataset Name: C:\USERS\E278427\APPDATA\LOCALLOW\EROOM\EROOM

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ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 4

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Right (NE)	NE Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Front (SE)	SE Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Left (SW)	SW Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Back (NW)	NW Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area	**7,750.0**	**500.0**

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1 — Cooling Type: Split System-RAUC-20+ Ton-Scroll — CP1

Operating Mode	Capacity	Energy Rate
Cooling:		0.9830 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type
Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Full Load Consumption

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for MZ rooftop
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt3 Plt1 Eq1 City of PSL_PAL_

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F

Equipment Options

Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No

Energy source: HP1
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	10,000°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001 — Heating Type: Electric Resistance Heat — HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt3 - City of PSL_PAL_A_R
Description:
Demand limiting priority: 0
Schedule: SA-Base Util - Alt3 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: HP1
Equipment tag: All
Type: None
Description:
Schedule: Off (0%)
Energy: 0.00 kW

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1 — Cooling Type: Split System-RAUC-20+ Ton-Scroll — CP1

Operating Mode	Capacity	Energy Rate
Cooling:		0.9830 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type
Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Full Load Consumption

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for MZ rooftop
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt3 Plt1 Eq1 City of PSL_PAL_

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F
Hourly ambient wet bulb offset: 339999995214436

Equipment Options

Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No

Energy source: HP1
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	10,000°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001 — Heating Type: Electric Resistance Heat — HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt3 - City of PSL_PAL_A_R

Description:
Demand limiting priority: 0

Schedule: SA-Base Util - Alt3 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: HP1
Equipment tag: All

Type: None
Description:

Schedule: Off (0%)
Energy: 0.00 kW

ENTERED VALUES
PLANTS
By Honeywell

Cooling Plant: CP1

Sizing method: Peak
Heat rejection type: None
Secondary distribution pump: None
Secondary pump consumption: 0 Ft Water
Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Geothermal Loop

TLoop Ent Bldg: None
TLoop schedule: None
Flow rate: 100.00% of condenser flow rate
Loop pump None
Pump F.L. rate: 0.00ft water
Flow scheme: Fully mixed
Loop fluid glycol: 0%
Heat exchanger approach: 0°F

Equipment tag: Air-cooled unitary - 1 — Cooling Type: Split System-RAUC-20+ Ton-Scroll — CP1

Operating Mode	Capacity	Energy Rate
Cooling:		0.9830 kW/ton
Heat recovery:		
Tank charging:		
Tank charging & heat recovery:		

Pumps Type
Chilled water: None
Condenser water: None
Heat recovery or aux cond: None
Free cooling: None

Full Load Consumption

Heat Rejection and Thermal Storage

Heat rejection type: Condenser fan for MZ rooftop
Thermal storage type: None
T-storage capacity: 80 ton-hr
T-storage schedule: SA-Thrm - Alt3 Plt1 Eq1 City of PSL_PAL_

Equipment Options

Sequencing type: Single
Demand lim priority: 0
Dsn chilled water delta T: 10 °F
Dsn cond water delta T: 10 °F
Hourly ambient wet bulb offset: 33999999521443E
Free clg type: None
Fluid cooler type: None
Load shed econ: no
Evap precooling: no
Hot gas reheat No
Energy source: HP1
Reject cond heat: Heat Reject.Equip
Cond. heat to plant:
Equip schedule: Available (100%)

Reset Based On	Reset Curve	Max Reset TD
Chilled Water: None	None	10,000°F
Condenser Water: None	None	0°F

Heating Plant: HP1

Sizing method: Peak
Cogeneration type: None
Secondary distribution pump: None
Thermal storage type: None
Thermal storage capacity: 80 ton-hr

Equipment tag: Electric resistance - 001 — Heating Type: Electric Resistance Heat — HP1

Heating capacity:
Energy rate: 100.00 % Effic.

Thermal storage type: None
Thermal storage capacity: 80 ton-hr
Thermal storage schedule: Off (0%)

Hot water pump type: None
Hot water pump cons: 0.00 Ft Water

Equipment schedule: Available (100%)
Demand limiting priority: 0

Base Utilities

Plant assigned to: Stand-alone
Type: SA-BaseUtil - Alt3 - City of PSL_PAL_A_R
Description:
Demand limiting priority: 0
Schedule: SA-Base Util - Alt3 City of PSL_PAL_A_Re
Hourly demand: 0.50 kW

Miscellaneous accessories

Plant assigned to: HP1
Equipment tag: All
Type: None
Description:
Schedule: Off (0%)
Energy: 0.00 kW

Entered Values

TRACE® 700 version 6.2.7

By Honeywell

Project Name:
Dataset Name: C:\USERS\E278427\DESKTOP\PSL_PAL_B.TRC
Location:
Building Owner:
Program User:
Company:
Comments:

Cooling Design Period:	January thru December
Peak Hour Override:	0
Daylight Savings Period:	
Summer Period:	
Cooling Methodology:	CLTD-CLF (ASHRAE TFM)
Heating Methodology:	UATD
Infiltration Methodology:	Vary with wind speed
Outside Film Methodology:	Vary with wind speed
Terrain Methodology:	Center of a large city
Room Circ Rate:	Medium
Wall Load To Plenum:	YES
Building Orientation:	0 degrees from north
Simulation Hours:	Reduced year
Calendar Code:	Standard (1978)
Energy Simulation Period:	January thru December

Location:	West Palm Beach, Florida	
Summer Design Dry Bulb:	92.30	°F
Summer Design Wet Bulb:	79.20	°F
Winter Design Dry Bulb:	45.00	°F
Summer Clearness Number:	0.90	
Winter Clearness Number:	0.95	
Summer Ground Reflectance:	0.20	
Winter Ground Reflectance:	0.20	
Carbon Dioxide Level:	400	ppm
Force VAV Min => Nominal Ventilation at Design:	No	
Allow Energy Recovery/Transfer at Design:	Yes	
Retest Design Peaks:	Yes	
Calculate Building Block Loads:	No	

ENTERED VALUES

ROOM ASSIGNMENTS

By Honeywell

ASSIGNED ROOMS

Description
System 1
System 1
System 1
Back (NW)
Back (NW)
Back (NW)
Front (SE)
Front (SE)
Front (SE)
Interior
Interior
Interior
Left (SW)
Left (SW)
Left (SW)
Right (NE)
Right (NE)
Right (NE)

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90											

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90											

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Right (NE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft²
Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft
Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room
Floor Multiplier: 1
Humidistat Location: Room
Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90											

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90											

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None
Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Old
Htg Tstat: None
Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES

ROOM BY ROOM

By Honeywell

Room Description: Right (NE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_Old
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent: 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ref/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Back (NW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_Gym_New
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
NW Wall	1,375 ft²	315	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

Room Description: Front (SE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 516 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_New
Htg Tstat: None

Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1

Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	516 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90											
SE Wall	1,375 ft²	135	0	8" LW Block, 3" Ins	0.0746	0.90		0			Overhang - None	None					

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Interior | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 2,356 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_New
Htg Tstat: None
Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	2,356 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					

Room Description: Left (SW) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area: 1,056 ft² | Flr-Flr Height: 25.0 ft
Plenum Height: 3.0 ft | Height Above Flr:
Slab Cnstr Type: 4" LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: YES
Design Clg DB / Drift Point: 72.0 °F / 76.0 °F
Design Htg DB / Drift Point: 72.0 °F / 65.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: PSL_PAL_New
Htg Tstat: None
Thermostat Location: Room | Floor Multiplier: 1
Humidistat Location: Room | Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Warehouse
# of People: 3 People
People Sensible: 275 Btu/h
People Latent : 275 Btu/h
People Schedule: SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type: INCAND
% Load to RA: 0 %
Lighting Schedule: SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount: 0.7 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.45 air changes/hr	0.45 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass: Type / Energy Type	Glass: Area ft²	Glass: Shade Coef	Glass: U Value Btu/h·ft²·°F	Glass: External Shading	Glass: Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
SW Wall	2,500 ft²	225	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

ENTERED VALUES
ROOM BY ROOM
By Honeywell

Room Description: Right (NE) | **Zone Description: No Zone** | **System Description: System 1**

GENERAL INFORMATION

Floor Area:	1,056 ft²	Flr-Flr Height:	25.0 ft
Plenum Height:	3.0 ft	Height Above Flr:	
Slab Cnstr Type:	4" LW Concrete		
Room Mass:	Time delay based on actual mass		
Ceiling R-Value:	1.786 hr·ft²·°F/Btu		
Is There Carpet?:	YES		
Design Clg DB / Drift Point:	72.0 °F / 76.0 °F		
Design Htg DB / Drift Point:	72.0 °F / 65.0 °F		
Design Relative Humidity:	50 %		
Moisture Capacitance:	Medium		
Clg Tstat:	PSL_PAL_Gym_New		
Htg Tstat:	None		
Thermostat Location:	Room	Floor Multiplier:	1
Humidistat Location:	Room	Room Multiplier:	1
CO2 Sensor Location:	None		
Room Type:	Conditioned		

PEOPLE

People Type:	Warehouse
# of People:	3 People
People Sensible:	275 Btu/h
People Latent :	275 Btu/h
People Schedule:	SA-People - Alt3 City of PSL_PAL_A_Rev1
Workstation:	1.0 workstation/person

LIGHTS

Lighting Type:	SA-Light - Alt3 - City of PSL_PAL_A_Rev1
Fixture Type:	INCAND
% Load to RA:	0 %
Lighting Schedule:	SA-Lights - Alt3 City of PSL_PAL_A_Rev1
Lighting Amount:	0.7 W/sq ft
Ballast Factor:	1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	Gym, stadium (play area)	Gym, stadium (play area)
Vent Value:	0.50 air changes/hr	0.50 % Htg Airflow
Vent Schedule:	SA-Vent - Alt3 City of PSL_PAL_A_Rev1	
Infil Type:	Pressurized, Average Const.	Pressurized, Average Const.
Infil Value:	0.05 air changes/hr	0.05 air changes/hr
Infil Schedule:	SA-Infil - Alt3 City of PSL_PAL_A_Rev1	
Vav Min Airflow:		
Vav Min Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Area ft²	Shade Coef	U Value Btu/h·ft²·°F	External Shading	Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	1,056 ft²	0	90	Attic Roof, 6" Ins	0.0428	0.90		0			Overhang - None	None					
NE Wall	2,500 ft²	45	0	8" LW Block, 3" Ins	0.0746	0.90											
Opening - 1				Window			Double Coated 1/4"	250	0.55	0.50	Overhang - None	None	0.00				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	
Use system default outside air reset:	Yes		Underfloor plenum height:	0.0 ft
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
			Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	ASHRAE Std 62.1-2004/2007 w/ Vent Reset

Reset per worst case room schedule:	Off (0%)
Max reset:	
Use system default outside air reset:	Yes

Supply air path / duct location:	Return Air
Space convective gains to occupied layer:	100 %
Underfloor plenum height:	0.0 ft
Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
Upstream nominal leakage fraction:	0 %
Downstream constant leakage fraction:	0 %
Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

SYSTEM ENTERED VALUES

By Honeywell

System 1 - Packaged Terminal Air Conditioner

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	55.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:						

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	ASHRAE Std 62.1-2004/2007 w/ Vent Reset

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	100 %
Use system default outside air reset:	Yes		Underfloor plenum height:	0.0 ft
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
			Aux cooling coil losses to plenum:	0 %

	Control Method	Control Type
Auxiliary cooling coil	Activate After Primary System	None
Auxiliary heating coil	Activate After Primary System	None
Auxiliary fan	No Fan	

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusting a	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	Full Load Energy Rate	Schedule	Efficiency	Demand Limiting Priority
Primary	FC Centrifugal const vol	0.5 in. wg	0.00030 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Return	FC Centrifugal const vol	0.0 in. wg	0.00032 kW/Cfm-in wg	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	0.00000 kW	Available (100%)	85	
	LEED Fan Power Adjustment	0.0 in. wg				

ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 1

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Right (NE)	NE Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Front (SE)	SE Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Left (SW)	SW Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Back (NW)	NW Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area	**7,750.0**	**500.0**

ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 2

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Right (NE)	NE Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Front (SE)	SE Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Left (SW)	SW Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Back (NW)	NW Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area	**7,750.0**	**500.0**

ENTERED VALUES

Walls by Direction

By Honeywell

Alternative 3

North East (45 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Right (NE)	NE Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

South East (135 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Front (SE)	SE Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

South West (225 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Left (SW)	SW Wall	2,500.0	0	8" LW Block, 3" Ins	0.0746	0.90						
	Opening - 1			Window			Double Coated 1/4"	250.0	0.47	0.5000	Overhang - None	None
		2,500.0			**0.0746**			**250.0**	**0.47**	**0.5000**		

North West (315 degrees)

Room Description	Wall Description	Area	Tilt	Const Type	U Value Btu/h·ft²·°F	Alpha	Glass Type	Glass Area ft²	Glass SHGC	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading
Back (NW)	NW Wall	1,375.0	0	8" LW Block, 3" Ins	0.0746	0.90						
		1,375.0			**0.0746**			**0.0**	**0.00**	**0.0000**		

Total Area	**7,750.0**	**500.0**

Location		
Building owner	**Port St Lucie**	
Program user		
Company		
Comments		
By	**Honeywell**	
Dataset name	**D:\PROJECTS\PORT ST LUCIE\BUILDING MODELLING\PAL BUILDING\PSL_PAL_A.TRC**	
Calculation time	**12:16 PM on 01/18/2012**	
TRACE® 700 version	**6.2.7**	
Location	**West Palm Beach, Florida**	
Latitude	**26.7**	**deg**
Longitude	**80.2**	**deg**
Time Zone	**5**	
Elevation	**15**	**ft**
Barometric pressure	**29.9**	**in. Hg**
Air density	**0.0760**	**lb/cu ft**
Air specific heat	**0.2444**	**Btu/lb·°F**
Density-specific heat product	**1.1147**	**Btu/h·cfm·°F**
Latent heat factor	**4,906.9**	**Btu·min/h·cu ft**
Enthalpy factor	**4.5604**	**lb·min/hr·cu ft**
Summer design dry bulb	**92**	**°F**
Summer design wet bulb	**79**	**°F**
Winter design dry bulb	**45**	**°F**
Summer clearness number	**0.90**	
Winter clearness number	**0.95**	
Summer ground reflectance	**0.20**	
Winter ground reflectance	**0.20**	
Carbon Dioxide Level	**400**	**ppm**
Design simulation period	**January - December**	
Cooling load methodology	**CLTD-CLF (ASHRAE TFM)**	
Heating load methodology	**UATD**	

MONTHLY ENERGY CONSUMPTION

By Honeywell

------- Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 1 PSL_PAL_ECM_Baseline													
Electric													
On-Pk Cons. (kWh)	6,158	5,456	7,485	7,961	8,655	9,372	10,037	10,322	9,407	8,260	7,183	7,001	97,296
On-Pk Demand (kW)	14	16	19	20	21	24	25	26	24	21	20	18	26

Energy Consumption			Environmental Impact Analysis	
Building	60,376	Btu/(ft2-year)	CO2	197,141 lbm/year
Source	181,148	Btu/(ft2-year)	SO2	559 gm/year
			NOX	316 gm/year
Floor Area	5,500	ft2		

Alternative: 2 PSL_PAL_ECM_Lighting													
Electric													
On-Pk Cons. (kWh)	3,338	3,295	4,484	5,137	5,692	6,503	7,180	7,375	6,593	5,268	4,295	4,075	63,237
On-Pk Demand (kW)	9	9	13	15	16	19	20	21	19	16	14	12	21

Energy Consumption			Environmental Impact Analysis	
Building	39,241	Btu/(ft2-year)	CO2	128,131 lbm/year
Source	117,736	Btu/(ft2-year)	SO2	364 gm/year
			NOX	206 gm/year
Floor Area	5,500	ft2		

MONTHLY ENERGY CONSUMPTION

By Honeywell

------- Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 3 PSL_PAL_ECM_Infiltration													
Electric													
On-Pk Cons. (kWh)	3,305	3,186	4,410	4,970	5,481	6,224	6,781	6,943	6,193	5,089	4,211	4,004	60,796
On-Pk Demand (kW)	9	10	13	14	15	17	18	19	17	15	13	12	19

Energy Consumption		
Building	37,727	Btu/(ft2-year)
Source	113,191	Btu/(ft2-year)
Floor Area	5,500	ft2

Environmental Impact Analysis	
CO2	123,185 lbm/year
SO2	350 gm/year
NOX	198 gm/year

Alternative: 4 PSL_PAL_ECM_Replace DX sys													
Electric													
On-Pk Cons. (kWh)	3,021	2,927	3,725	4,061	4,456	5,016	5,461	5,617	4,997	4,181	3,562	3,432	50,457
On-Pk Demand (kW)	8	8	10	12	12	14	15	16	14	12	11	10	16

Energy Consumption		
Building	31,311	Btu/(ft2-year)
Source	93,943	Btu/(ft2-year)
Floor Area	5,500	ft2

Environmental Impact Analysis	
CO2	102,237 lbm/year
SO2	290 gm/year
NOX	164 gm/year

MONTHLY ENERGY CONSUMPTION

By Honeywell

------- Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 4	**PSL_PAL_ECM_Replace DX sys**												
Electric													
On-Pk Cons. (kWh)	3,021	2,927	3,725	4,061	4,456	5,016	5,461	5,617	4,997	4,181	3,562	3,432	50,457
On-Pk Demand (kW)	8	8	10	12	12	14	15	16	14	12	11	10	16

Energy Consumption		
Building	31,311	Btu/(ft2-year)
Source	93,943	Btu/(ft2-year)
Floor Area	5,500	ft2

Environmental Impact Analysis	
CO2	102,237 lbm/year
SO2	290 gm/year
NOX	164 gm/year

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 5	**PSL_PAL_ECM_DCV**												
Electric													
On-Pk Cons. (kWh)	2,514	2,272	3,095	3,325	3,711	4,200	4,584	4,716	4,225	3,404	2,871	2,743	41,661
On-Pk Demand (kW)	99	100	108	111	112	116	117	118	116	111	108	105	118

Energy Consumption		
Building	25,853	Btu/(ft2-year)
Source	77,566	Btu/(ft2-year)
Floor Area	5,500	ft2

Environmental Impact Analysis	
CO2	84,414 lbm/year
SO2	240 gm/year
NOX	135 gm/year

ELECTRICAL PEAK CHECKSUMS

By Honeywell

Alternative 1 **PSL_PAL_ECM_Baseline**

Yearly Time of Peak: 16(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		16.95	65.51
	Sub total	16.95	65.51
Fan Equipment			
Sys 1: System 1		0.73	2.82
	Sub total	0.73	2.82
Miscellaneous			
Lights		7.69	29.74
Base Utilities		0.50	1.93
Misc Equipment		0.00	0.00
	Sub total	8.19	31.67
	Total	25.87	100

Alternative 2 **PSL_PAL_ECM_Lighting**

Yearly Time of Peak: 16(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		15.81	77.12
	Sub total	15.81	77.12
Fan Equipment			
Sys 1: System 1		0.61	3.00
	Sub total	0.61	3.00
Miscellaneous			
Lights		3.57	17.44
Misc Equipment		0.00	0.00
Base Utilities		0.50	2.44
	Sub total	4.07	19.88
	Total	20.49	100

Alternative 3 **PSL_PAL_ECM_Infiltration**

Yearly Time of Peak: 16(Hr) 8(Month)

Equipment Description	Electrical Demand (kw)	Percent of Total (%)

ELECTRICAL PEAK CHECKSUMS

By Honeywell

Cooling Equipment			
Air-cooled unitary - 1		13.90	74.98
	Sub total	13.90	74.98
Fan Equipment			
Sys 1: System 1		0.56	3.04
	Sub total	0.56	3.04
Miscellaneous			
Lights		3.57	19.28
Base Utilities		0.50	2.70
Misc Equipment		0.00	0.00
	Sub total	4.07	21.98
	Total	18.53	100

Alternative 4 **PSL_PAL_ECM_Replace DX**

Yearly Time of Peak: 16(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		11.29	70.88
	Sub total	11.29	70.88
Fan Equipment			
Sys 1: System 1		0.56	3.54
	Sub total	0.56	3.54
Miscellaneous			
Misc Equipment		0.00	0.00
Lights		3.57	22.44
Base Utilities		0.50	3.14
	Sub total	4.07	25.58
	Total	15.92	100

ELECTRICAL PEAK CHECKSUMS

By Honeywell

Alternative 4 **PSL_PAL_ECM_Replace DX**

Yearly Time of Peak: 16(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		11.29	70.88
	Sub total	11.29	70.88
Fan Equipment			
Sys 1: System 1		0.56	3.54
	Sub total	0.56	3.54
Miscellaneous			
Misc Equipment		0.00	0.00
Base Utilities		0.50	3.14
Lights		3.57	22.44
	Sub total	4.07	25.58
	Total	15.92	100

Alternative 5 **PSL_PAL_ECM_DCV**

Yearly Time of Peak: 15(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		113.66	96.08
	Sub total	113.66	96.08
Fan Equipment			
Sys 1: System 1		0.56	0.47
	Sub total	0.56	0.47
Miscellaneous			
Misc Equipment		0.00	0.00
Base Utilities		0.50	0.42
Lights		3.57	3.02
	Sub total	4.07	3.44
	Total	118.29	100

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 1				
Primary heating				
Primary heating	27	0.0 %	92	277
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**27**	**0.0 %**	**92**	**277**
Primary cooling				
Cooling Compressor	34,162	35.1 %	116,597	349,825
Tower/Cond Fans	5,408	5.6 %	18,458	55,381
Condenser Pump		0.0 %	0	0
Other Clg Accessories	872	0.9 %	2,977	8,932
Cooling Subtotal....	**40,443**	**41.6 %**	**138,032**	**414,138**
Auxiliary				
Supply Fans	6,389	6.6 %	21,806	65,424
Pumps		0.0 %	0	0
Stand-alone Base Utilities	2,246	2.3 %	7,666	22,999
Aux Subtotal....	8,635	8.9 %	29,472	88,423
Lighting				
Lighting	48,191	49.5 %	164,475	493,474
Receptacle				
Receptacles		0.0 %	0	0
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**97,296**	**100.0 %**	**332,071**	**996,311**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 2				
Primary heating				
Primary heating	332	0.5 %	1,133	3,399
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**332**	**0.5 %**	**1,133**	**3,399**
Primary cooling				
Cooling Compressor	27,671	43.8 %	94,440	283,349
Tower/Cond Fans	4,213	6.7 %	14,379	43,142
Condenser Pump		0.0 %	0	0
Other Clg Accessories	844	1.3 %	2,881	8,643
Cooling Subtotal....	**32,728**	**51.8 %**	**111,700**	**335,134**
Auxiliary				
Supply Fans	5,383	8.5 %	18,374	55,126
Pumps		0.0 %	0	0
Stand-alone Base Utilities	2,246	3.6 %	7,666	22,999
Aux Subtotal....	7,629	12.1 %	26,039	78,125
Lighting				
Lighting	22,548	35.7 %	76,955	230,890
Receptacle				
Receptacles		0.0 %	0	0
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**63,237**	**100.0 %**	**215,828**	**647,548**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 3				
Primary heating				
Primary heating	251	0.4 %	856	2,569
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**251**	**0.4 %**	**856**	**2,569**
Primary cooling				
Cooling Compressor	26,000	42.8 %	88,737	266,237
Tower/Cond Fans	3,964	6.5 %	13,529	40,592
Condenser Pump		0.0 %	0	0
Other Clg Accessories	848	1.4 %	2,895	8,686
Cooling Subtotal....	**30,812**	**50.7 %**	**105,161**	**315,515**
Auxiliary				
Supply Fans	4,939	8.1 %	16,857	50,577
Pumps		0.0 %	0	0
Stand-alone Base Utilities	2,246	3.7 %	7,666	22,999
Aux Subtotal....	7,185	11.8 %	24,523	73,577
Lighting				
Lighting	22,548	37.1 %	76,955	230,890
Receptacle				
Receptacles		0.0 %	0	0
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**60,796**	**100.0 %**	**207,496**	**622,551**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 4				
Primary heating				
Primary heating	251	0.5 %	856	2,569
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**251**	**0.5 %**	**856**	**2,569**
Primary cooling				
Cooling Compressor	16,857	33.4 %	57,533	172,615
Tower/Cond Fans	2,556	5.1 %	8,725	26,178
Condenser Pump		0.0 %	0	0
Other Clg Accessories	1,060	2.1 %	3,619	10,857
Cooling Subtotal....	**20,474**	**40.6 %**	**69,876**	**209,650**
Auxiliary				
Supply Fans	4,939	9.8 %	16,857	50,577
Pumps		0.0 %	0	0
Stand-alone Base Utilities	2,246	4.5 %	7,666	22,999
Aux Subtotal....	7,185	14.2 %	24,523	73,577
Lighting				
Lighting	22,548	44.7 %	76,955	230,890
Receptacle				
Receptacles		0.0 %	0	0
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**50,457**	**100.0 %**	**172,211**	**516,685**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 4				
Primary heating				
Primary heating	251	0.5 %	856	2,569
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**251**	**0.5 %**	**856**	**2,569**
Primary cooling				
Cooling Compressor	16,857	33.4 %	57,533	172,615
Tower/Cond Fans	2,556	5.1 %	8,725	26,178
Condenser Pump		0.0 %	0	0
Other Clg Accessories	1,060	2.1 %	3,619	10,857
Cooling Subtotal....	**20,474**	**40.6 %**	**69,876**	**209,650**
Auxiliary				
Supply Fans	4,939	9.8 %	16,857	50,577
Pumps		0.0 %	0	0
Stand-alone Base Utilities	2,246	4.5 %	7,666	22,999
Aux Subtotal....	7,185	14.2 %	24,523	73,577
Lighting				
Lighting	22,548	44.7 %	76,955	230,890
Receptacle				
Receptacles		0.0 %	0	0
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**50,457**	**100.0 %**	**172,211**	**516,685**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 5				
Primary heating				
Primary heating		0.0 %	0	0
Other Htg Accessories		0.0 %	0	0
Heating Subtotal		**0.0 %**	**0**	**0**
Primary cooling				
Cooling Compressor	9,978	24.0 %	34,056	102,177
Tower/Cond Fans	1,597	3.8 %	5,449	16,349
Condenser Pump		0.0 %	0	0
Other Clg Accessories	371	0.9 %	1,267	3,800
Cooling Subtotal....	**11,946**	**28.7 %**	**40,771**	**122,327**
Auxiliary				
Supply Fans	4,921	11.8 %	16,797	50,396
Pumps		0.0 %	0	0
Stand-alone Base Utilities	2,246	5.4 %	7,666	22,999
Aux Subtotal....	7,167	17.2 %	24,463	73,395
Lighting				
Lighting	22,548	54.1 %	76,955	230,890
Receptacle				
Receptacles		0.0 %	0	0
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**41,661**	**100.0 %**	**142,190**	**426,611**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Energy Cost Budget / PRM Summary

By Honeywell

Project Name: Port St Lucie_PAL	Date: January 23, 2012
City:	Weather Data: West Palm Beach, Florida

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-1 PSL_PAL_ECM_Baseline			Alt-2 PSL_PAL_ECM_Lighting			Alt-3 PSL_PAL_ECM_Infiltration			Alt-4 PSL_PAL_ECM_Replace Dx		
		Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	164.5	50	26	77.0	47	13	77.0	47	13	77.0	47	13
Space Heating	Electricity	0.1	0	2	1.1	1,229	10	0.9	929	8	0.9	929	8
Space Cooling	Electricity	119.6	36	51	97.3	81	47	91.6	77	42	61.2	51	35
Heat Rejection	Electricity	18.5	6	7	14.4	78	7	13.5	73	6	8.7	47	4
Fans - Conditioned	Electricity	21.8	7	2	18.4	84	2	16.9	77	2	16.9	77	2
Stand-alone Base Utilities	Electricity	7.7	2	2	7.7	100	2	7.7	100	2	7.7	100	2
Total Building Consumption		**332.1**			**215.8**			**207.5**			**172.2**		

		* Alt-1 PSL_PAL_ECM_Baseline	Alt-2 PSL_PAL_ECM_Lighting	Alt-3 PSL_PAL_ECM_Infiltration	Alt-4 PSL_PAL_ECM_Replace Dx
Total	**Number of hours heating load not met**	0	0	0	0
	Number of hours cooling load not met	0	0	0	0

	* Alt-1 PSL_PAL_ECM_Baseline			Alt-2 PSL_PAL_ECM_Lighting			Alt-3 PSL_PAL_ECM_Infiltration			Alt-4 PSL_PAL_ECM_Replace Dx		
	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr
Electricity	332.1	9,647		215.8	6,299		207.5	6,059		172.2	5,043	
Total	**332**	**9,647**		**216**	**6,299**		**207**	**6,059**		**172**	**5,043**	

Energy Cost Budget / PRM Summary

By Honeywell

Project Name:	Date: January 23, 2012
City:	Weather Data: West Palm Beach, Florida

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-4			Alt-5 PSL_PAL_ECM_DCV		
		Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	77.0	45	13	77.0	100	13
Space Heating	Electricity	0.9	0	8	0.0	0	0
	Gas	0.0	0	0	0.0	0	0
Space Cooling	Electricity	61.2	36	35	35.3	58	384
Heat Rejection	Electricity	8.7	5	4	5.4	62	4
Fans - Conditioned	Electricity	16.9	10	2	16.8	100	2
Stand-alone Base Utilities	Electricity	7.7	4	2	7.7	100	2
Total Building Consumption		**172.2**			**142.2**		

		* Alt-4	Alt-5 PSL_PAL_ECM_DCV
Total	**Number of hours heating load not met**	0	0
	Number of hours cooling load not met	0	0

	* Alt-4			Alt-5 PSL_PAL_ECM_DCV		
	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr
Electricity	172.2	5,043		142.2	4,178	
Total	**172**	**5,043**		**142**	**4,178**	

MONTHLY UTILITY COSTS

By Honeywell

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	------- Monthly Utility Costs -------												
Alternative 1													
Electric													
On-Pk Cons. ($)	605	536	736	783	851	921	987	1,015	925	812	706	688	9,564
Off-Pk Cons. ($)	7	7	7	7	7	7	7	7	7	7	7	7	83
Total ($):	612	543	743	789	858	928	993	1,022	932	819	713	695	9,647
Monthly Total ($):	612	543	743	789	858	928	993	1,022	932	819	713	695	9,647

Building Area = 5,500 ft²

Utility Cost Per Area = 1.75 $/ft²

Alternative 2													
Electric													
On-Pk Cons. ($)	328	324	441	505	560	639	706	725	648	518	422	401	6,216
Off-Pk Cons. ($)	7	7	7	7	7	7	7	7	7	7	7	7	83
Total ($):	335	331	448	512	566	646	713	732	655	525	429	408	6,299
Monthly Total ($):	335	331	448	512	566	646	713	732	655	525	429	408	6,299

Building Area = 5,500 ft²

Utility Cost Per Area = 1.15 $/ft²

MONTHLY UTILITY COSTS

By Honeywell

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	------- Monthly Utility Costs -------												
Alternative 3													
Electric													
On-Pk Cons. ($)	325	313	433	489	539	612	667	682	609	500	414	394	5,976
Off-Pk Cons. ($)	7	7	7	7	7	7	7	7	7	7	7	7	83
Total ($):	332	320	440	495	546	619	673	689	616	507	421	400	6,059
Monthly Total ($):	332	320	440	495	546	619	673	689	616	507	421	400	6,059

Building Area = 5,500 ft²

Utility Cost Per Area = 1.10 $/ft²

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative 4													
Electric													
On-Pk Cons. ($)	297	288	366	399	438	493	537	552	491	411	350	337	4,960
Off-Pk Cons. ($)	7	7	7	7	7	7	7	7	7	7	7	7	83
Total ($):	304	295	373	406	445	500	544	559	498	418	357	344	5,043
Monthly Total ($):	304	295	373	406	445	500	544	559	498	418	357	344	5,043

Building Area = 5,500 ft²

Utility Cost Per Area = 0.92 $/ft²

MONTHLY UTILITY COSTS

By Honeywell

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	------- Monthly Utility Costs -------												
Alternative 4													
Electric													
On-Pk Cons. ($)	297	288	366	399	438	493	537	552	491	411	350	337	4,960
Off-Pk Cons. ($)	7	7	7	7	7	7	7	7	7	7	7	7	83
Total ($):	304	295	373	406	445	500	544	559	498	418	357	344	5,043
Monthly Total ($):	304	295	373	406	445	500	544	559	498	418	357	344	5,043

Building Area = 5,500 ft²

Utility Cost Per Area = 0.92 $/ft²

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative 5													
Electric													
On-Pk Cons. ($)	247	223	304	327	365	413	451	464	415	335	282	270	4,095
Off-Pk Cons. ($)	7	7	7	7	7	7	7	7	7	7	7	7	83
Total ($):	254	230	311	334	372	420	457	471	422	342	289	276	4,178
Monthly Total ($):	254	230	311	334	372	420	457	471	422	342	289	276	4,178

Building Area = 5,500 ft²

Utility Cost Per Area = 0.76 $/ft²

Economic Summary

Project Information

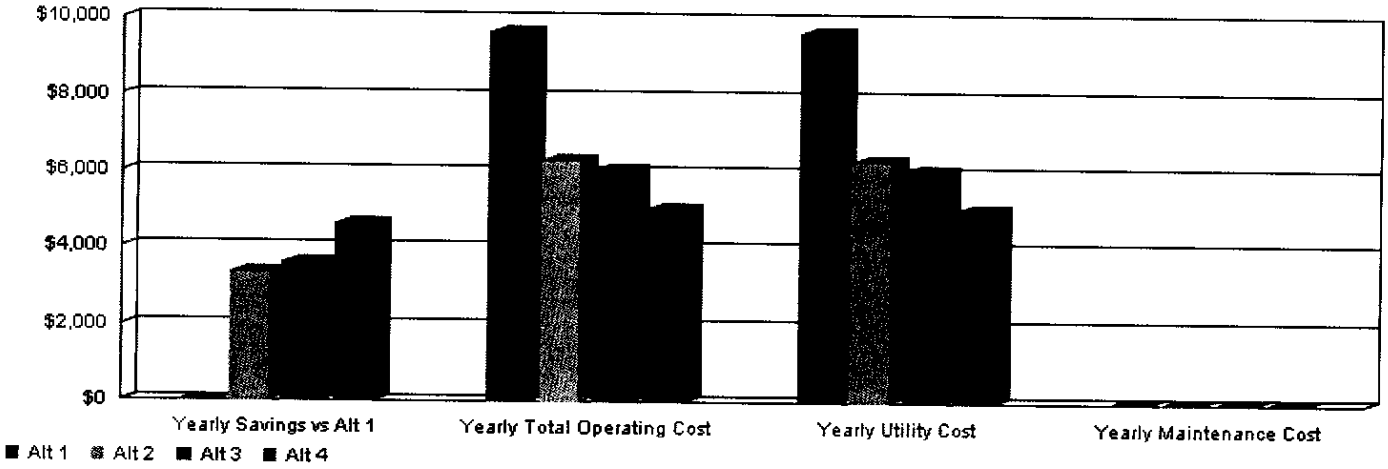
Location
Project Name: Port St Lucie_PAL
User
Company
Comments

Study Life: 20 years
Cost of Capital: 10 %
Alternative 1: PSL_PAL_ECM_Baseline
Alternative 2: PSL_PAL_ECM_Lighting
Alternative 3: PSL_PAL_ECM_Infiltration
Alternative 4: PSL_PAL_ECM_Replace DX sys

Economic Comparison of Alternatives

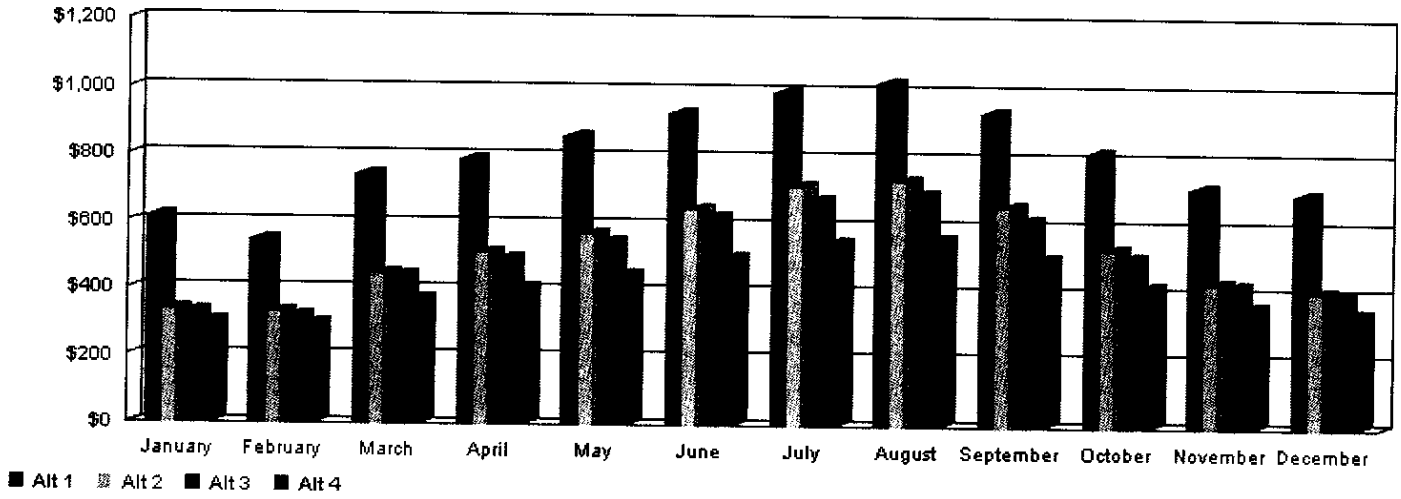
	Yearly Savings ($)	First Cost Difference ($)	Cumulative Cash Flow Difference ($)	Simple Payback (yrs.)	Net Present Value ($)	Life Cycle Payback (yrs.)	Internal Rate of Return (%)	Life Cycle Cost
Alt 1 vs Alt 2	-3,348	0	-110,704	No Payback	-40,551	No Payback	Does Not Payback	-40,551.03
Alt 1 vs Alt 3	-3,588	0	-118,639	No Payback	-43,458	No Payback	Does Not Payback	-43,457.54
Alt 1 vs Alt 4	-4,604	0	-152,243	No Payback	-55,767	No Payback	Does Not Payback	-55,766.61
Alt 2 vs Alt 3	-240	0	-7,935	No Payback	-2,907	No Payback	Does Not Payback	-2,906.51
Alt 2 vs Alt 4	-1,256	0	-41,539	No Payback	-15,216	No Payback	Does Not Payback	-15,215.58
Alt 3 vs Alt 4	-1,016	0	-33,604	No Payback	-12,309	No Payback	Does Not Payback	-12,309.07

Annual Operating Costs



	Yearly Savings vs Alt 1	Yearly Total Operating Cost ($)	Yearly Utility Cost ($)	Yearly Maintenance Cost ($)	Plant kWh/ton-hr
Alt 1	0	9,647	9,647	0	0.000
Alt 2	3,348	6,299	6,299	0	0.000
Alt 3	3,588	6,059	6,059	0	0.000
Alt 4	4,604	5,043	5,043	0	0.000

Monthly Utility Costs



Economic Summary

Project Information

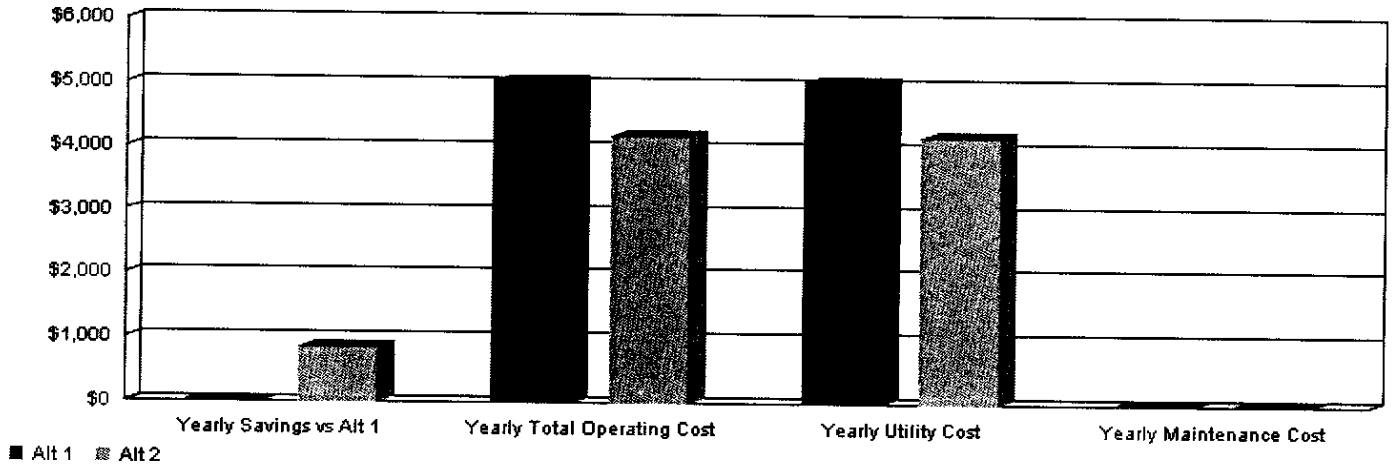
Location
Project Name
User
Company
Comments

Study Life: 20 years
Cost of Capital: 10 %
Alternative 4: PSL_PAL_ECM_Replace DX sys
Alternative 5: PSL_PAL_ECM_DCV

Economic Comparison of Alternatives

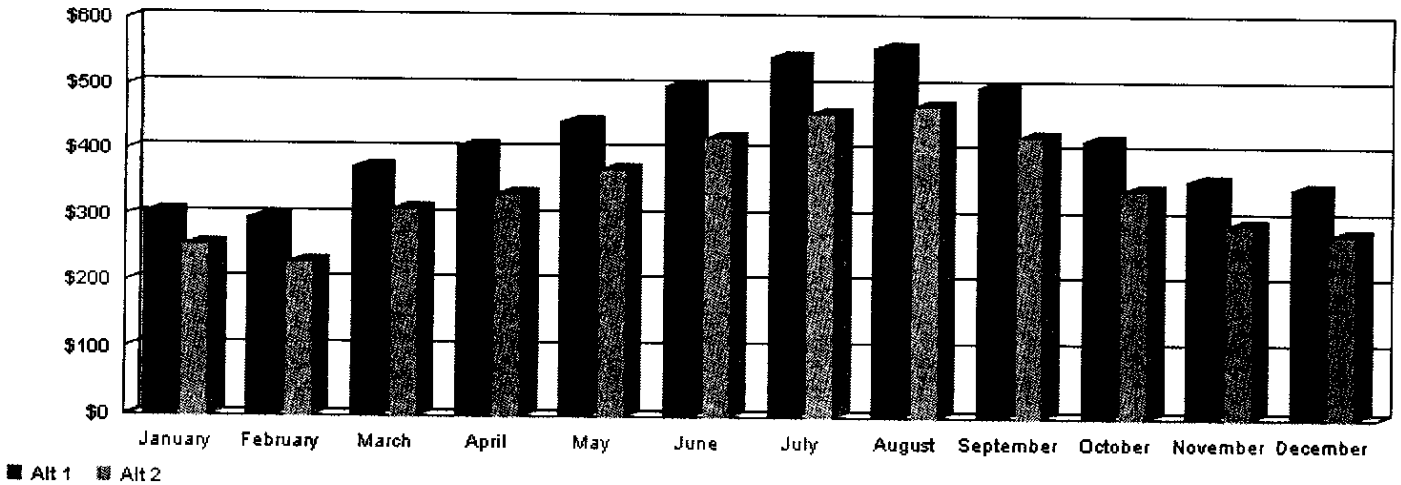
	Yearly Savings ($)	First Cost Difference ($)	Cumulative Cash Flow Difference ($)	Simple Payback (yrs.)	Net Present Value ($)	Life Cycle Payback (yrs.)	Internal Rate of Return (%)	Life Cycle Cost
Alt 4 vs Alt 5	-865	0	-28,591	No Payback	-10,473	No Payback	Does Not Payback	-10,472.95

Annual Operating Costs



	Yearly Savings vs Alt 1	Yearly Total Operating Cost ($)	Yearly Utility Cost ($)	Yearly Maintenance Cost ($)	Plant kWh/ton-hr
Alt 4	0	5,043	5,043	0	0.000
Alt 5	865	4,178	4,178	0	0.000

Monthly Utility Costs



PD East

Title / Summary Report

City of PSL_PD East

Location: West Palm Beach, Florida

	Alternative - 1	Alternative - 2
Alternative Description	Alternative - 1	PSL_PD East_ECM_Lighting
Building Template	1-2 Story	1-2 Story
Building Floor Area	4,800 ft²	4,800 ft²
System #1	Packaged Terminal Air Conditioner	Packaged Terminal Air Conditioner
Max Clg Load	5.1 ton	4.7 ton
Max Htg Load	25.0 MBh	24.9 MBh
System #2		
Max Clg Load		
Max Htg Load		
Opt Ventilation Clg Load		
Opt Ventilation Htg Load		
Total Building Clg Load	5.1 ton	4.7 ton
Total Building Htg Load	25.0 MBh	24.9 MBh
Plant #1		
Clg Equipment Type #1	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type	Electric Resistance Heat	Electric Resistance Heat
Plant #2		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
MAU Plant #3		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
Building Clg Coil Load	17,648 ton·hrs/year	15,387 ton·hrs/year
Building Htg Coil Load	-3,761 kBtu/year	-4,599 kBtu/year
Building Energy Usage	24,829 Btu/ft²·year	18,157 Btu/ft²·year
Building Energy Cost	0.732 $/ft²·year	0.540 $/ft²·year

	Alternative - 3	Alternative - 4
Alternative Description	PSL_PD East_ECM_Prog Thermostat	Increase Setpoint 2 degrees
Building Template	1-2 Story	1-2 Story
Building Floor Area	4,800 ft²	4,800 ft²
System #1	Packaged Terminal Air Conditioner	Packaged Terminal Air Conditioner
Max Clg Load	4.7 ton	4.5 ton
Max Htg Load	24.9 MBh	24.8 MBh
System #2		
Max Clg Load		
Max Htg Load		
Opt Ventilation Clg Load		
Opt Ventilation Htg Load		
Total Building Clg Load	4.7 ton	4.5 ton
Total Building Htg Load	24.9 MBh	24.8 MBh
Plant #1		
Clg Equipment Type #1	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type	Electric Resistance Heat	Electric Resistance Heat
Plant #2		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
MAU Plant #3		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
Building Clg Coil Load	10,934 ton·hrs/year	10,249 ton·hrs/year
Building Htg Coil Load	-72 kBtu/year	0 kBtu/year
Building Energy Usage	14,193 Btu/ft²·year	13,531 Btu/ft²·year
Building Energy Cost	0.426 $/ft²·year	0.407 $/ft²·year

Built By:

Dataset Name: CITYOF~1

Echo Airside Parameters Report

City of PSL_PD East

- Airside Criteria - System - 1	Alt - 1	Alt - 2	Alt - 3	Alt - 4
	Packaged Terminal Air Conditioner	Packaged Terminal Air Conditioner	Packaged Terminal Air Conditioner	Packaged Terminal Air Conditioner
Clg Supply Air DB	55.0 °F	55.0 °F	55.0 °F	55.0 °F
Ventilation deck Location				
VAV Minimum Airflow %				
Has Makeup-Air Unit	No	No	No	No
MAU Clg Supply Air DB	N/A	N/A	N/A	N/A
MAU Htg Supply Air DB	N/A	N/A	N/A	N/A
EMS/BAS Options				
Economizer Type	None	None	None	None
Economizer On Point	N/A	N/A	N/A	N/A
Heat Recovery Type	None (default)	None (default)	None (default)	None (default)
Heat Recovery Effectiveness	N/A	N/A	N/A	N/A
Using Supply Air Temp Reset	No	No	No	No
Using Optimum Start	No	No	No	No
Using Optimum Stop	No	No	No	No
Fan Cycling Schedule	Cycle with occupancy	Cycle with occupancy	Cycle with occupancy	Cycle with occupancy
Fans				
Primary Fan Type	Fan coil supply fan	Fan coil supply fan	Fan coil supply fan	Fan coil supply fan
Primary Fan SP	0.50 in. wg	0.50 in. wg	0.50 in. wg	0.50 in. wg
Primary Fan Energy Rate	0.0002 kW/Cfm	0.0002 kW/Cfm	0.0002 kW/Cfm	0.0002 kW/Cfm
Secondary Fan Type	None	None	None	None
Secondary Fan SP	N/A	N/A	N/A	N/A
Secondary Fan Energy Rate	N/A	N/A	N/A	N/A
System Exh Fan Type	None	None	None	None
System Exh Fan SP	N/A	N/A	N/A	N/A
System Exh Fan Energy Rate	N/A	N/A	N/A	N/A
Return Fan Type	FC Centrifugal const vol	FC Centrifugal const vol	FC Centrifugal const vol	FC Centrifugal const vol
Return Fan SP	0.00 in. wg	0.00 in. wg	0.00 in. wg	0.00 in. wg
Return Fan Energy Rate	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg
Makeup-Air Fan Type	None	None	None	None
Makeup-Air Fan SP	N/A	N/A	N/A	N/A
Makeup-Air Fan Energy Rate	N/A	N/A	N/A	N/A

Echo Building Parameters Report

City of PSL_PD East

Weather Parameters

Location: West Palm Beach, Florida
Summer Dry Bulb: 92.3°F
Summer Wet Bulb: 79.2°F
Winter Dry Bulb: 45.0°F

- Building Criteria -	Alt - 1	Alt - 2	Alt - 3	Alt - 4
Category	Office Buildings	Office Buildings	Office Buildings	Office Buildings
Template	1-2 Story	1-2 Story	1-2 Story	1-2 Story
Length	80.0 ft	80.0 ft	80.0 ft	80.0 ft
Width	60.0 ft	60.0 ft	60.0 ft	60.0 ft
Floors	1	1	1	1
Floor to Floor Height	12.0 ft	12.0 ft	12.0 ft	12.0 ft
Plenum Height	2.0 ft	2.0 ft	2.0 ft	2.0 ft
Perimeter depth	12.0 ft	12.0 ft	12.0 ft	12.0 ft
Orientation	North	North	North	North
Occupied Clg Setpoint	69.0 °F	69.0 °F	69.0 °F	71.0 °F
Occupied Htg Setpoint	69.0 °F	69.0 °F	69.0 °F	69.0 °F
Unoccupied Clg Setpoint	70.0 °F	70.0 °F	85.0 °F	85.0 °F
Unoccupied Htg Setpoint	70.0 °F	70.0 °F	65.0 °F	65.0 °F
Relative Humidity Setpoint	50.0 %	50.0 %	50.0 %	50.0 %
Envelope Loads				
Front Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Back Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Left Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Right Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Skylight Glass Percentage	0.0 %	0.0 %	0.0 %	0.0 %
Wall Type	8" LW Block, 3" Ins	8" LW Block, 3" Ins	8" LW Block, 3" Ins	8" LW Block, 3" Ins
Wall U-Value	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F
Glass Type	Double Coated 1/4"	Double Coated 1/4"	Double Coated 1/4"	Double Coated 1/4"
Glass U-Value	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F
Glass Shading Coefficient	0.550	0.550	0.550	0.550
Roof Type	Attic Roof, 6" Ins	Attic Roof, 6" Ins	Attic Roof, 6" Ins	Attic Roof, 6" Ins
Roof U-Value	0.0428 Btu/h·ft²·°F	0.0428 Btu/h·ft²·°F	0.0428 Btu/h·ft²·°F	0.0428 Btu/h·ft²·°F
Skylight Type	Double Clear 1/4"	Double Clear 1/4"	Double Clear 1/4"	Double Clear 1/4"
Skylight U-Value	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F
Skylight Shading Coefficient	0.820	0.820	0.820	0.820
Internal Loads				
People Type	General Office Space	General Office Space	General Office Space	General Office Space
People Density	3.0 People	3.0 People	3.0 People	3.0 People
People Sensible Energy Rate	250.0 Btu/h	250.0 Btu/h	250.0 Btu/h	250.0 Btu/h
People Latent Energy Rate	200.0 Btu/h	200.0 Btu/h	200.0 Btu/h	200.0 Btu/h
Lighting Type	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space
Lighting Energy Rate	1.8 Watt/sq ft	0.9 Watt/sq ft	0.9 Watt/sq ft	0.9 Watt/sq ft
Lighting % Load to Plenum	20.0 %	20.0 %	20.0 %	20.0 %
Misc Equipment Type	Std Office Equipment	Std Office Equipment	Std Office Equipment	Std Office Equipment
Misc Energy Rate	0.20 Watt/sq ft	0.20 Watt/sq ft	0.20 Watt/sq ft	0.20 Watt/sq ft
Misc Load to Room	100 %	100 %	100 %	100 %
Misc Load to Plenum	0 %	0 %	0 %	0 %
Ventilation				
Ventilation Type	Guard stations	Guard stations	Guard stations	Guard stations
Ventilation Clg Rate	5.00 cfm/person	5.00 cfm/person	5.00 cfm/person	5.00 cfm/person
Ventilation Htg Rate	0.06 cfm/sq ft	0.06 cfm/sq ft	0.06 cfm/sq ft	0.06 cfm/sq ft
Infiltration Type	Neutral, Tight Const.	Neutral, Tight Const.	Neutral, Tight Const.	Neutral, Tight Const.
Infiltration Clg Rate	0.30 air changes/hr	0.30 air changes/hr	0.30 air changes/hr	0.30 air changes/hr
Infiltration Htg Rate	0.30 air changes/hr	0.30 air changes/hr	0.30 air changes/hr	0.30 air changes/hr
Base Utilities				
Base Utiltiy Energy Rate	0.00 kW	0.00 kW	0.00 kW	0.00 kW
Base Utility Energy Type	Electricity	Electricity	Electricity	Electricity
DHW Energy Rate	0.00 Mbh	0.00 Mbh	0.00 Mbh	0.00 Mbh
DHW Energy Type	Gas	Gas	Gas	Gas
DHW Entering Water Temp				
DHW Leaving Water Temp				

Built By:
Dataset Name: CITYOF~1

System Analyzer v 6.1.0.0 calculated on 6/4/2012 12:30:58PM

Echo Plant Parameters Report

- Clg Plant Criteria - Plant # 1

	Alt - 1	Alt - 2	Alt - 3	Alt - 4
	Air-cooled unitary	Air-cooled unitary	Air-cooled unitary	Air-cooled unitary
Use Common Heating Plant	No	No	No	No
Secondary Dist Pump Type	None	None	None	None
Sec Dist Pump FL Rate				
Equipment - 1				
	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll
Sequencing Type				
Clg Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity
Full Load Energy Rate	0.983 kW/ton	0.983 kW/ton	0.983 kW/ton	0.983 kW/ton
Primary Chw Pump Type	None	None	None	None
Primary Chw Pump FL Rate	0.0 ft water	0.0 ft water	0.0 ft water	0.0 ft water
Condenser Pump Type	None	None	None	None
Condenser Pump FL Rate	0.00 ft water	0.00 ft water	0.00 ft water	0.00 ft water
Heat Rejection Type	Condenser fan for MZ rooftop	Condenser fan for MZ rooftop	Condenser fan for MZ rooftop	Condenser fan for MZ rooftop
Heat Rejection Energy Rate	0.084 kW/ton	0.084 kW/ton	0.084 kW/ton	0.084 kW/ton
Heat Recovery Capacity				
Heat Recovery Energy Rate				
Thermal Storage Type	None	None	None	None
Tank Size				
Tank Charging Capacity				
Tank Charging Energy Rate				
Max Chilled Water Reset	0.0 °F	0.0 °F	0.0 °F	0.0 °F
Free Cooling Type	None	None	None	None
Load Shedding Economizer	No	No	No	No
Evaporative Precooling	No	No	No	No

Echo Plant Parameters Report

- Htg Plant Criteria- Plant # 1	Alt - 1	Alt - 2	Alt - 3	Alt - 4
	Electric resistance	Electric resistance	Electric resistance	Electric resistance
Heating Equipment Type	Electric Resistance Heat	Electric Resistance Heat	Electric Resistance Heat	Electric Resistance Heat
Htg Equipment Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity
Htg Full Load Energy Rate	100.000 Percent efficient	100.000 Percent efficient	100.000 Percent efficient	100.000 Percent efficient
Heating Pump Type	None	None	None	None
Heating Pump FL Energy Rate				

Echo Schedules Report

City of PSL_PD East

Alt1, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt1, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt1, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt1, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt1, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt1, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt2, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Echo Schedules Report

City of PSL_PD East

Alt2, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt2, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt3, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt3, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt3, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt3, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Echo Schedules Report

City of PSL_PD East

Alt3, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	24	0

Alt3, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	24	0

Alt4, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype: Weekday	Start time	End time	Value
	1	24	Normal
Daytype: Sat	**Start time**	**End time**	**Value**
	1	24	Normal
Daytype: Sun	**Start time**	**End time**	**Value**
	1	24	Normal

Alt4, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype: Weekday	Start time	End time	Value
	1	24	Off
Daytype: Sat	**Start time**	**End time**	**Value**
	1	24	Off
Daytype: Sun	**Start time**	**End time**	**Value**
	1	24	Off

Alt4, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype: Weekday	Start time	End time	Value
	1	24	Normal
Daytype: Sat	**Start time**	**End time**	**Value**
	1	24	Normal
Daytype: Sun	**Start time**	**End time**	**Value**
	1	24	Normal

Alt4, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	24	0

Alt4, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	24	0

Alt4, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	24	0

Echo Schedules Report

City of PSL_PD East

Office Buildings, 1-2 Story

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	24	0

Daytype: Sat

Start time	End time	Percentage
1	24	0

Daytype: Sun

Start time	End time	Percentage
1	24	0

Office Buildings, 1-2 Story - 1

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	6	0
6	8	31
8	9	29
9	10	27
10	11	29
11	12	31
12	16	38
16	17	42
17	24	0

Daytype: Sat

Start time	End time	Percentage
1	24	0

Daytype: Sun

Start time	End time	Percentage
1	24	0

Office Buildings, 1-2 Story - 1 - 1

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	24	100

Daytype: Sat

Start time	End time	Percentage
1	24	100

Daytype: Sun

Start time	End time	Percentage
1	24	100

Office Buildings, 1-2 Story - 2

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	24	100

Daytype: Sat

Start time	End time	Percentage
1	24	0

Daytype: Sun

Start time	End time	Percentage
1	24	0

Office Buildings, 1-2 Story - 2 - 1

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	6	0
6	17	100
17	24	0

Daytype: Sat

Start time	End time	Percentage
1	24	0

Daytype: Sun

Start time	End time	Percentage
1	24	0

Office Buildings, 1-2 Story - 2 - 2

Utilization

Season: Primary

Daytype: Weekday

Start time	End time	Percentage
1	6	0
6	7	9
7	17	39
17	24	0

Daytype: Sat

Start time	End time	Percentage
1	6	0
6	17	51
17	24	0

Daytype: Sun

Start time	End time	Percentage
1	6	0
6	17	51
17	24	0

Echo Schedules Report

City of PSL_PD East

Office Buildings, 1-2 Story - 3

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	6	0
	6	17	42
	17	24	0

Daytype: Sat	Start time	End time	Percentage
	1	24	0

Daytype: Sun	Start time	End time	Percentage
	1	24	0

Office Buildings, 1-2 Story - 4

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	24	0

Daytype: Sat	Start time	End time	Percentage
	1	24	0

Daytype: Sun	Start time	End time	Percentage
	1	24	0

Utility Cost Summary Report

Monthly Utility Costs

Alternative - 1

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	240	216	258	276	297	323	353	366	333	286	244	242
	Off Pk ($)	7	7	7	7	7	7	7	7	7	7	7	7
	Sub Total($)	**246**	**223**	**265**	**283**	**303**	**330**	**360**	**373**	**340**	**293**	**250**	**249**
Monthly Total ($)		**246**	**223**	**265**	**283**	**303**	**330**	**360**	**373**	**340**	**293**	**250**	**249**

Alternative - 2

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	169	154	180	197	217	245	270	285	253	205	168	166
	Off Pk ($)	7	7	7	7	7	7	7	7	7	7	7	7
	Sub Total($)	**176**	**161**	**187**	**204**	**223**	**252**	**277**	**292**	**260**	**212**	**175**	**173**
Monthly Total ($)		**176**	**161**	**187**	**204**	**223**	**252**	**277**	**292**	**260**	**212**	**175**	**173**

Alternative - 3

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	111	99	154	160	181	190	195	209	187	188	151	137
	Off Pk ($)	7	7	7	7	7	7	7	7	7	7	7	7
	Sub Total($)	**118**	**106**	**161**	**167**	**188**	**197**	**202**	**216**	**193**	**195**	**157**	**144**
Monthly Total ($)		**118**	**106**	**161**	**167**	**188**	**197**	**202**	**216**	**193**	**195**	**157**	**144**

Alternative - 4

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	102	90	145	153	173	184	191	204	182	180	139	126
	Off Pk ($)	7	7	7	7	7	7	7	7	7	7	7	7
	Sub Total($)	**109**	**97**	**152**	**160**	**180**	**191**	**197**	**211**	**189**	**187**	**146**	**133**
Monthly Total ($)		**109**	**97**	**152**	**160**	**180**	**191**	**197**	**211**	**189**	**187**	**146**	**133**

Built By:
Dataset Name: CITYOF~1

Equipment Energy Consumption Report

City of PSL_PD East

Alternative - 1

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lights	Elec(kWh)	1,202	1,085	1,174	1,168	1,188	1,140	1,216	1,174	1,168	1,188	1,154	1,216	14,072
MISC LD	Elec(kWh)	93	84	102	89	98	98	89	102	89	98	93	89	1,122
Fans:														
System 1	Elec(kWh)	285	255	292	283	307	323	337	359	318	300	268	265	3,592
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	355	321	789	1,002	1,139	1,423	1,623	1,746	1,498	1,037	697	586	12,216
Condenser fan for MZ rooftop	Elec(kWh)	62	57	125	150	167	198	220	233	205	154	110	94	1,774
Cooling accessories	Elec(kWh)	70	69	90	88	90	90	93	93	90	90	87	91	1,040
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	370	322	52	28	28	19	15	16	22	41	68	119	1,102

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	2,437	2,194	2,624	2,806	3,017	3,290	3,593	3,723	3,389	2,908	2,478	2,460	34,919
Electrical Demand	Peak (kW)	7	7	9	9	9	10	10	10	10	9	9	8	10

Alternative - 2

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lights	Elec(kWh)	571	515	558	554	564	541	577	558	554	564	548	577	6,682
MISC LD	Elec(kWh)	93	84	102	89	98	98	89	102	89	98	93	89	1,122
Fans:														
System 1	Elec(kWh)	248	226	258	250	274	291	303	323	285	266	237	232	3,194
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	258	236	662	863	997	1,273	1,465	1,593	1,346	891	569	460	10,612
Condenser fan for MZ rooftop	Elec(kWh)	45	42	106	130	148	178	199	213	185	134	91	75	1,546
Cooling accessories	Elec(kWh)	68	63	90	88	90	90	93	93	90	90	87	91	1,032
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	439	403	59	33	33	23	19	19	26	46	82	166	1,348

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	1,721	1,569	1,835	2,007	2,203	2,494	2,746	2,901	2,575	2,089	1,708	1,691	25,536
Electrical Demand	Peak (kW)	5	5	6	7	7	7	8	8	8	7	6	6	8

Equipment Energy Consumption Report

City of PSL_PD East

Alternative - 3

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lights	Elec(kWh)	571	515	558	554	564	541	577	558	554	564	548	577	6,682
MISC LD	Elec(kWh)	93	84	102	89	98	98	89	102	89	98	93	89	1,122
Fans:														
System 1	Elec(kWh)	154	139	168	146	162	168	163	180	155	162	154	146	1,897
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	238	190	618	721	875	966	987	1,107	943	938	622	483	8,689
Condenser fan for MZ rooftop	Elec(kWh)	40	34	88	94	111	119	120	133	114	118	86	69	1,126
Cooling accessories	Elec(kWh)	29	26	32	28	35	43	50	49	43	33	29	28	423
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	1	20	0	0	0	0	0	0	0	0	0	0	21

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	1,125	1,009	1,566	1,632	1,845	1,934	1,986	2,129	1,898	1,913	1,532	1,393	19,961
Electrical Demand	Peak (kW)	6	5	7	7	7	8	8	8	8	7	7	7	8

Alternative - 4

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lights	Elec(kWh)	571	515	558	554	564	541	577	558	554	564	548	577	6,682
MISC LD	Elec(kWh)	93	84	102	89	98	98	89	102	89	98	93	89	1,122
Fans:														
System 1	Elec(kWh)	132	119	145	126	140	145	142	156	134	139	132	126	1,636
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	181	146	560	673	817	934	962	1,082	922	882	540	406	8,105
Condenser fan for MZ rooftop	Elec(kWh)	31	26	80	88	105	115	118	131	112	112	76	60	1,055
Cooling accessories	Elec(kWh)	29	26	32	28	36	43	51	49	44	35	29	28	429
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	1,037	918	1,476	1,558	1,760	1,877	1,939	2,077	1,856	1,829	1,419	1,285	19,029
Electrical Demand	Peak (kW)	5	5	7	7	7	7	7	8	7	7	7	7	8

Economic Comparison Report

Cost Summary

Alternative Number	Installed Cost	First Year Utility Cost	Final Year Utility Cost	First Year Maint. Cost	Final Year Maint. Cost	Life Cycle Cost
1	$0	$3,515	$8,883	$0	$0	$42,577
2	$0	$2,593	$6,552	$0	$0	$31,405
3	$0	$2,045	$5,167	$0	$0	$24,767
4	$0	$1,953	$4,936	$0	$0	$23,658

Saints Clubhouse

Title / Summary Report

Port St Lucie_St Golf Club

Location: West Palm Beach, Florida

	Alternative - 1	Alternative - 2
Alternative Description	Alternative - 1	PSL_Glof Club_ECM_Lighting
Building Template	Restaurant	Restaurant
Building Floor Area	10,800 ft²	10,800 ft²
System #1	Water Source Heat Pump	Water Source Heat Pump
Max Clg Load	42.6 ton	41.4 ton
Max Htg Load	199.5 MBh	199.2 MBh
System #2		
Max Clg Load		
Max Htg Load		
Opt Ventilation Clg Load		
Opt Ventilation Htg Load		
Total Building Clg Load	42.6 ton	41.4 ton
Total Building Htg Load	199.5 MBh	199.2 MBh
Plant #1		
Clg Equipment Type #1	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type	Electric Resistance Heat	Electric Resistance Heat
Plant #2		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
MAU Plant #3		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
Building Clg Coil Load	122,591 ton·hrs/year	113,314 ton·hrs/year
Building Htg Coil Load	-2,438 kBtu/year	-4,914 kBtu/year
Building Energy Usage	93,906 Btu/ft²·year	82,212 Btu/ft²·year
Building Energy Cost	2.517 $/ft²·year	2.254 $/ft²·year

	Alternative - 3	Alternative - 4
Alternative Description	PSL_Golf Club_ECM_Infiltration	Raise Temperature Setpoint 2 degrees
Building Template	Restaurant	Restaurant
Building Floor Area	10,800 ft²	10,800 ft²
System #1	Water Source Heat Pump	Water Source Heat Pump
Max Clg Load	36.8 ton	35.4 ton
Max Htg Load	152.3 MBh	151.7 MBh
System #2		
Max Clg Load		
Max Htg Load		
Opt Ventilation Clg Load		
Opt Ventilation Htg Load		
Total Building Clg Load	36.8 ton	35.4 ton
Total Building Htg Load	152.3 MBh	151.7 MBh
Plant #1		
Clg Equipment Type #1	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type	Electric Resistance Heat	Electric Resistance Heat
Plant #2		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
MAU Plant #3		
Clg Equipment Type #1		
Clg Equipment Type #2		
Clg Equipment Type #3		
Htg Equipment Type		
Building Clg Coil Load	108,751 ton·hrs/year	99,817 ton·hrs/year
Building Htg Coil Load	-571 kBtu/year	0 kBtu/year
Building Energy Usage	79,919 Btu/ft²·year	75,999 Btu/ft²·year
Building Energy Cost	2.113 $/ft²·year	2.008 $/ft²·year

Built By:

Dataset Name: CITYOF~1

Echo Airside Parameters Report

Port St Lucie_St Golf Club

- Airside Criteria - System - 1	Alt - 1	Alt - 2	Alt - 3	Alt - 4
	Water Source Heat Pump	Water Source Heat Pump	Water Source Heat Pump	Water Source Heat Pump
Clg Supply Air DB	55.0 °F	55.0 °F	55.0 °F	55.0 °F
Ventilation deck Location				
VAV Minimum Airflow %				
Has Makeup-Air Unit	No	No	No	No
MAU Clg Supply Air DB	N/A	N/A	N/A	N/A
MAU Htg Supply Air DB	N/A	N/A	N/A	N/A
EMS/BAS Options				
Economizer Type	None	None	None	None
Economizer On Point	N/A	N/A	N/A	N/A
Heat Recovery Type	None (default)	None (default)	None (default)	None (default)
Heat Recovery Effectiveness	N/A	N/A	N/A	N/A
Using Supply Air Temp Reset	No	No	No	No
Using Optimum Start	No	No	No	No
Using Optimum Stop	No	No	No	No
Fan Cycling Schedule	No fan cycling	No fan cycling	No fan cycling	No fan cycling
Fans				
Primary Fan Type	Hydronic in heat pump fan	Hydronic in heat pump fan	Hydronic in heat pump fan	Hydronic in heat pump fan
Primary Fan SP	0.50 in. wg	0.50 in. wg	0.50 in. wg	0.50 in. wg
Primary Fan Energy Rate	0.0002 kW/Cfm	0.0002 kW/Cfm	0.0002 kW/Cfm	0.0002 kW/Cfm
Secondary Fan Type	None	None	None	None
Secondary Fan SP	N/A	N/A	N/A	N/A
Secondary Fan Energy Rate	N/A	N/A	N/A	N/A
System Exh Fan Type	FC Centrifugal const vol	FC Centrifugal const vol	FC Centrifugal const vol	FC Centrifugal const vol
System Exh Fan SP	0.00 in. wg	0.00 in. wg	0.00 in. wg	0.00 in. wg
System Exh Fan Energy Rate	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg	0.0003 kW/Cfm-in wg
Return Fan Type	None	None	None	None
Return Fan SP	N/A	N/A	N/A	N/A
Return Fan Energy Rate	N/A	N/A	N/A	N/A
Makeup-Air Fan Type	None	None	None	None
Makeup-Air Fan SP	N/A	N/A	N/A	N/A
Makeup-Air Fan Energy Rate	N/A	N/A	N/A	N/A

Title / Summary Report

Port St Lucie_St Golf Club

Location: West Palm Beach, Florida

Life Cycle Payback on Investment

	Alt 1 vs 2	Alt 1 vs 3	Alt 1 vs 4	Alt 2 vs 3
Internal Rate of Return	0.0 %	0.0 %	0.0 %	0.0 %
Life Cycle Cost Difference	-$34,363	-$52,849	-$66,578	-$18,487
Net Present Value of Cash Flow	-$34,363	-$52,849	-$66,578	-$18,487
Life Cycle Payback on Invest.	NA	NA	NA	NA
Simple Payback on Invest.	NA	NA	NA	NA

	Alt 2 vs 4	Alt 3 vs 4
Internal Rate of Return	0.0 %	0.0 %
Life Cycle Cost Difference	-$32,215	-$13,729
Net Present Value of Cash Flow	-$32,215	-$13,729
Life Cycle Payback on Invest.	NA	NA
Simple Payback on Invest.	NA	NA

Environmental Impact Analysis

	Alt 1	Alt 2	Alt 3	Alt 4
CO2 Impact	1,266,385 lbm/year	1,108,686 lbm/year	1,077,767 lbm/year	1,024,893 lbm/year
SO2 Impact	5,386 gm/year	4,715 gm/year	4,583 gm/year	4,359 gm/year
NOX Impact	2,999 gm/year	2,626 gm/year	2,553 gm/year	2,427 gm/year

Energy Star Building Label Benchmarking Tool

	Alt - 1	Alt - 2	Alt - 3	Alt - 4
Building Floor Area	10,800 ft²	10,800 ft²	10,800 ft²	10,800 ft²
Weekly Operating Hours	98 hrs	98 hrs	98 hrs	98 hrs
Number of Occupants	324 People	324 People	324 People	324 People
Annual Electric Consumption	297,154 kWh	260,150 kWh	252,895 kWh	240,488 kWh
Annual Gas Consumption	0 therms	0 therms	0 therms	0 therms
Annual Oil Consumption	0 therms	0 therms	0 therms	0 therms
Annual Steam Consumption	0 therms	0 therms	0 therms	0 therms

Echo Building Parameters Report

Port St Lucie_St Golf Club

Weather Parameters

Location: West Palm Beach, Florida
Summer Dry Bulb: 92.3°F
Summer Wet Bulb: 79.2°F
Winter Dry Bulb: 45.0°F

- Building Criteria -	Alt - 1	Alt - 2	Alt - 3	Alt - 4
Category	Other	Other	Other	Other
Template	Restaurant	Restaurant	Restaurant	Restaurant
Length	180.0 ft	180.0 ft	180.0 ft	180.0 ft
Width	60.0 ft	60.0 ft	60.0 ft	60.0 ft
Floors	1	1	1	1
Floor to Floor Height	12.0 ft	12.0 ft	12.0 ft	12.0 ft
Plenum Height	2.0 ft	2.0 ft	2.0 ft	2.0 ft
Perimeter depth	12.0 ft	12.0 ft	12.0 ft	12.0 ft
Orientation	South	South	South	South
Occupied Clg Setpoint	74.0 °F	74.0 °F	74.0 °F	76.0 °F
Occupied Htg Setpoint	74.0 °F	74.0 °F	74.0 °F	74.0 °F
Unoccupied Clg Setpoint	77.0 °F	77.0 °F	77.0 °F	77.0 °F
Unoccupied Htg Setpoint	68.0 °F	68.0 °F	68.0 °F	68.0 °F
Relative Humidity Setpoint	50.0 %	50.0 %	50.0 %	50.0 %
Envelope Loads				
Front Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Back Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Left Glass Percentage	5.0 %	5.0 %	5.0 %	5.0 %
Right Glass Percentage	10.0 %	10.0 %	10.0 %	10.0 %
Skylight Glass Percentage	0.0 %	0.0 %	0.0 %	0.0 %
Wall Type	8" LW Block, 3" Ins	8" LW Block, 3" Ins	8" LW Block, 3" Ins	8" LW Block, 3" Ins
Wall U-Value	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F	0.0747 Btu/h·ft²·°F
Glass Type	Double Coated 1/4"	Double Coated 1/4"	Double Coated 1/4"	Double Coated 1/4"
Glass U-Value	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F	0.5000 Btu/h·ft²·°F
Glass Shading Coefficient	0.550	0.550	0.550	0.550
Roof Type	Steel Sheet, 4" Ins	Steel Sheet, 4" Ins	Steel Sheet, 4" Ins	Steel Sheet, 4" Ins
Roof U-Value	0.0681 Btu/h·ft²·°F	0.0681 Btu/h·ft²·°F	0.0681 Btu/h·ft²·°F	0.0681 Btu/h·ft²·°F
Skylight Type	Double Clear 1/4"	Double Clear 1/4"	Double Clear 1/4"	Double Clear 1/4"
Skylight U-Value	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F	0.6000 Btu/h·ft²·°F
Skylight Shading Coefficient	0.820	0.820	0.820	0.820
Internal Loads				
People Type	Hotel/Motel Lobby	Hotel/Motel Lobby	Hotel/Motel Lobby	Hotel/Motel Lobby
People Density	33.3 sq ft/person	33.3 sq ft/person	33.3 sq ft/person	33.3 sq ft/person
People Sensible Energy Rate	250.0 Btu/h	250.0 Btu/h	250.0 Btu/h	250.0 Btu/h
People Latent Energy Rate	200.0 Btu/h	200.0 Btu/h	200.0 Btu/h	200.0 Btu/h
Lighting Type	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space	Recessed fluorescent, not vented, 80% load to space
Lighting Energy Rate	1.2 Watt/sq ft	0.9 Watt/sq ft	0.9 Watt/sq ft	0.9 Watt/sq ft
Lighting % Load to Plenum	20.0 %	20.0 %	20.0 %	20.0 %
Misc Equipment Type	Std Office Equipment	Std Office Equipment	Std Office Equipment	Std Office Equipment
Misc Energy Rate	0.00 Watt/sq ft	0.00 Watt/sq ft	0.00 Watt/sq ft	0.00 Watt/sq ft
Misc Load to Room	100 %	100 %	100 %	100 %
Misc Load to Plenum	0 %	0 %	0 %	0 %
Ventilation				
Ventilation Type	Bars, cocktail lounges	Bars, cocktail lounges	Bars, cocktail lounges	Bars, cocktail lounges
Ventilation Clg Rate	7.50 cfm/person	7.50 cfm/person	7.50 cfm/person	7.50 cfm/person
Ventilation Htg Rate	0.18 cfm/sq ft	0.18 cfm/sq ft	0.18 cfm/sq ft	0.18 cfm/sq ft
Infiltration Type	Neutral, Loose Const.	Neutral, Average Const.	Neutral, Average Const.	Neutral, Average Const.
Infiltration Clg Rate	3.21 air changes/hr	3.21 air changes/hr	1.50 air changes/hr	1.50 air changes/hr
Infiltration Htg Rate	3.21 air changes/hr	3.21 air changes/hr	1.50 air changes/hr	1.50 air changes/hr
Base Utilities				
Base Utiltiy Energy Rate	6.00 kW	6.00 kW	6.00 kW	6.00 kW
Base Utility Energy Type	Electricity	Electricity	Electricity	Electricity
DHW Energy Rate	0.00 Mbh	0.00 Mbh	0.00 Mbh	0.00 Mbh
DHW Energy Type	Gas	Gas	Gas	Gas
DHW Entering Water Temp				
DHW Leaving Water Temp				

Echo Plant Parameters Report

- Clg Plant Criteria - Plant # 1

	Alt - 1	Alt - 2	Alt - 3	Alt - 4
	Air-cooled unitary	Air-cooled unitary	Air-cooled unitary	Air-cooled unitary
Use Common Heating Plant	No	No	No	No
Secondary Dist Pump Type	None	None	None	None
Sec Dist Pump FL Rate				
Equipment - 1				
	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll	Split System-RAUC-20+ Ton-Scroll
Sequencing Type				
Clg Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity
Full Load Energy Rate	1.100 kW/ton	1.100 kW/ton	1.100 kW/ton	1.100 kW/ton
Primary Chw Pump Type	None	None	None	None
Primary Chw Pump FL Rate	0.0 ft water	0.0 ft water	0.0 ft water	0.0 ft water
Condenser Pump Type	None	None	None	None
Condenser Pump FL Rate	0.00 ft water	0.00 ft water	0.00 ft water	0.00 ft water
Heat Rejection Type	Condenser fan for MZ rooftop	Condenser fan for MZ rooftop	Condenser fan for MZ rooftop	Condenser fan for MZ rooftop
Heat Rejection Energy Rate	0.084 kW/ton	0.084 kW/ton	0.084 kW/ton	0.084 kW/ton
Heat Recovery Capacity				
Heat Recovery Energy Rate				
Thermal Storage Type	None	None	None	None
Tank Size				
Tank Charging Capacity				
Tank Charging Energy Rate				
Max Chilled Water Reset	0.0 °F	0.0 °F	0.0 °F	0.0 °F
Free Cooling Type	None	None	None	None
Load Shedding Economizer	No	No	No	No
Evaporative Precooling	No	No	No	No

Echo Plant Parameters Report

- Htg Plant Criteria- Plant # 1	Alt - 1	Alt - 2	Alt - 3	Alt - 4
	Electric resistance	Electric resistance	Electric resistance	Electric resistance
Heating Equipment Type	Electric Resistance Heat	Electric Resistance Heat	Electric Resistance Heat	Electric Resistance Heat
Htg Equipment Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity	100.0 % Plant Capacity
Htg Full Load Energy Rate	100.000 Percent efficient	100.000 Percent efficient	100.000 Percent efficient	100.000 Percent efficient
Heating Pump Type	None	None	None	None
Heating Pump FL Energy Rate				

Echo Schedules Report

Port St Lucie_St Golf Club

Alt1, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt1, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt1, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt1, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt1, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt1, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt2, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Echo Schedules Report

Port St Lucie_St Golf Club

Alt2, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt2, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt2, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt3, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt3, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt3, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt3, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Echo Schedules Report

Port St Lucie_St Golf Club

Alt3, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt3, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt4, Plant 1, Eq 1

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt4, Plant 1, Eq 1 - Thermal

Thermal Storage

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Off
Sat	1	24	Off
Sun	1	24	Off

Alt4, Plant 1, Heating Eq

Equipment Operation

Season: Primary

Daytype	Start time	End time	Value
Weekday	1	24	Normal
Sat	1	24	Normal
Sun	1	24	Normal

Alt4, System 1 - Optimum Start Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt4, System 1 - Optimum Stop Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Alt4, System 1 - Supply Air Temperature Reset Schedule

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	0
Sat	1	24	0
Sun	1	24	0

Echo Schedules Report

Port St Lucie_St Golf Club

Florida Light and Power_GSD1 & GSD with SDTR - GSD 1

Time-of-Day

Season: Primary

Daytype: Weekday	Start time	End time	Value
	1	24	On peak
Daytype: Sat	**Start time**	**End time**	**Value**
	1	24	On peak
Daytype: Sun	**Start time**	**End time**	**Value**
	1	24	On peak

Florida Light and Power_GSD1 & GSD with SDTR - GSD1 & GSD with SDTR

Time-of-Day

Season: Primary

Daytype: Weekday	Start time	End time	Value
	1	24	On peak
Daytype: Sat	**Start time**	**End time**	**Value**
	1	24	On peak
Daytype: Sun	**Start time**	**End time**	**Value**
	1	24	On peak

Season: Secondary

Daytype: Weekday	Start time	End time	Value
	1	15	Off peak
	15	18	On peak
	18	24	Off peak
Daytype: Sat	**Start time**	**End time**	**Value**
	1	24	Off peak
Daytype: Sun	**Start time**	**End time**	**Value**
	1	24	Off peak

Other, Restaurant

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	8	0
	8	22	100
	22	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	8	0
	8	20	100
	20	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	8	0
	8	24	100

Other, Restaurant - 1

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	8	0
	8	9	50
	9	17	100
	17	18	51
	18	19	20
	19	20	22
	20	22	24
	22	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	8	0
	8	9	50
	9	19	100
	19	20	56
	20	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	8	0
	8	9	50
	9	24	100

Other, Restaurant - 2

Utilization

Season: Primary

Daytype: Weekday	Start time	End time	Percentage
	1	8	0
	8	22	100
	22	24	0
Daytype: Sat	**Start time**	**End time**	**Percentage**
	1	8	0
	8	20	100
	20	24	0
Daytype: Sun	**Start time**	**End time**	**Percentage**
	1	8	0
	8	24	100

Echo Schedules Report

Port St Lucie_St Golf Club

Other, Restaurant - 2 - 1

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	100
Sat	1	5	90
	5	24	100
Sun	1	5	90
	5	24	100

Other, Restaurant - 2 - 1 - 1

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	90
Sat	1	24	90
Sun	1	24	90

Other, Restaurant - 2 - 2

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	100
Sat	1	24	100
Sun	1	24	100

Other, Restaurant - 2 - 3

Utilization

Season: Primary

Daytype	Start time	End time	Percentage
Weekday	1	24	100
Sat	1	24	100
Sun	1	24	100

Utility Cost Summary Report

Monthly Utility Costs

Alternative - 1

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	1,090	1,010	1,280	1,372	1,483	384	375	457	366	1,434	1,256	1,214
	Off Pk ($)	16	16	16	16	16	1,248	1,411	1,401	1,325	16	16	16
	Sub Total($)	**1,106**	**1,027**	**1,297**	**1,388**	**1,500**	**1,632**	**1,786**	**1,858**	**1,691**	**1,451**	**1,272**	**1,231**
Electric Demand	On Pk ($)	509	706	440	496	533	704	746	768	704	502	460	460
	Off Pk ($)	0	0	0	0	0	699	746	772	701	0	0	0
	Sub Total($)	**509**	**706**	**440**	**496**	**533**	**1,403**	**1,492**	**1,541**	**1,405**	**502**	**460**	**460**
Monthly Total ($)		**1,616**	**1,733**	**1,737**	**1,884**	**2,033**	**3,035**	**3,278**	**3,399**	**3,095**	**1,953**	**1,732**	**1,690**

Alternative - 2

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	937	883	1,095	1,191	1,298	350	344	421	334	1,248	1,078	1,030
	Off Pk ($)	16	16	16	16	16	1,105	1,261	1,251	1,180	16	16	16
	Sub Total($)	**954**	**899**	**1,111**	**1,208**	**1,314**	**1,455**	**1,605**	**1,672**	**1,513**	**1,264**	**1,095**	**1,047**
Electric Demand	On Pk ($)	578	670	395	445	488	651	693	715	651	457	406	357
	Off Pk ($)	0	0	0	0	0	646	693	719	648	0	0	0
	Sub Total($)	**578**	**670**	**395**	**445**	**488**	**1,298**	**1,386**	**1,433**	**1,299**	**457**	**406**	**357**
Monthly Total ($)		**1,532**	**1,570**	**1,506**	**1,652**	**1,802**	**2,753**	**2,990**	**3,105**	**2,813**	**1,721**	**1,500**	**1,404**

Alternative - 3

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	925	831	1,095	1,174	1,267	331	319	386	308	1,222	1,073	1,038
	Off Pk ($)	16	16	16	16	16	1,071	1,208	1,195	1,125	16	16	16
	Sub Total($)	**941**	**847**	**1,111**	**1,191**	**1,284**	**1,402**	**1,526**	**1,580**	**1,433**	**1,238**	**1,090**	**1,055**
Electric Demand	On Pk ($)	296	383	385	420	457	602	633	653	603	430	391	394
	Off Pk ($)	0	0	0	0	0	594	629	656	598	0	0	0
	Sub Total($)	**296**	**383**	**385**	**420**	**457**	**1,196**	**1,262**	**1,309**	**1,201**	**430**	**391**	**394**
Monthly Total ($)		**1,237**	**1,230**	**1,496**	**1,611**	**1,741**	**2,598**	**2,788**	**2,889**	**2,634**	**1,668**	**1,480**	**1,449**

Alternative - 4

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Electric Consumption	On Pk ($)	884	787	1,043	1,115	1,204	315	305	370	293	1,161	1,022	987
	Off Pk ($)	16	16	16	16	16	1,019	1,148	1,136	1,068	16	16	16
	Sub Total($)	**901**	**804**	**1,059**	**1,131**	**1,220**	**1,334**	**1,453**	**1,506**	**1,361**	**1,178**	**1,039**	**1,004**
Electric Demand	On Pk ($)	280	286	369	409	441	576	608	631	576	417	371	348
	Off Pk ($)	0	0	0	0	0	571	608	635	573	0	0	0
	Sub Total($)	**280**	**286**	**369**	**409**	**441**	**1,147**	**1,216**	**1,266**	**1,149**	**417**	**371**	**348**
Monthly Total ($)		**1,181**	**1,090**	**1,428**	**1,540**	**1,661**	**2,481**	**2,669**	**2,772**	**2,510**	**1,594**	**1,410**	**1,352**

Built By:
Dataset Name: CITYOF~1

Equipment Energy Consumption Report

Port St Lucie_St Golf Club

Alternative - 1

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	4,464	4,032	4,464	4,320	4,464	4,320	4,464	4,464	4,320	4,464	4,320	4,464	52,560
Lights	Elec(kWh)	9,234	8,341	9,247	8,934	9,240	8,947	9,228	9,247	8,934	9,240	8,941	9,228	108,762
Fans:														
System 1	Elec(kWh)	1,930	1,743	1,930	1,868	1,930	1,868	1,930	1,930	1,868	1,930	1,868	1,930	22,725
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	2,825	2,369	5,793	7,709	9,005	11,400	13,824	14,323	12,647	8,222	5,878	4,781	98,777
Condenser fan for MZ rooftop	Elec(kWh)	460	390	830	1,026	1,167	1,382	1,619	1,655	1,499	1,090	835	704	12,658
Cooling accessories	Elec(kWh)	79	71	81	80	82	79	82	82	80	82	79	81	958
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	27	688	0	0	0	0	0	0	0	0	0	0	714

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	19,019	17,634	22,346	23,937	25,890	3,553	3,471	4,229	3,384	25,029	21,920	21,188	191,599
	Off Peak(kWh)	0	0	0	0	0	24,443	27,677	27,471	25,964	0	0	0	105,554
Electrical Demand	Peak (kW)	52	73	45	51	55	64	68	70	64	52	47	47	73
	Off Peak (kW)	0	0	0	0	0	64	68	71	64	0	0	0	71

Alternative - 2

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	4,464	4,032	4,464	4,320	4,464	4,320	4,464	4,464	4,320	4,464	4,320	4,464	52,560
Lights	Elec(kWh)	6,812	6,153	6,812	6,592	6,812	6,592	6,812	6,812	6,592	6,812	6,592	6,812	80,209
Fans:														
System 1	Elec(kWh)	1,845	1,666	1,845	1,785	1,845	1,785	1,845	1,845	1,785	1,845	1,785	1,845	21,722
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	2,430	2,054	5,165	7,073	8,361	10,768	13,137	13,623	11,980	7,569	5,293	4,166	91,618
Condenser fan for MZ rooftop	Elec(kWh)	397	337	744	945	1,084	1,301	1,533	1,569	1,416	1,007	755	619	11,707
Cooling accessories	Elec(kWh)	71	64	74	75	78	75	79	78	76	78	72	74	894
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	339	1,100	0	0	0	0	0	0	0	0	0	0	1,440

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	16,358	15,407	19,104	20,790	22,645	3,242	3,185	3,898	3,088	21,775	18,817	17,981	166,290
	Off Peak(kWh)	0	0	0	0	0	21,600	24,685	24,493	23,082	0	0	0	93,860
Electrical Demand	Peak (kW)	60	69	41	46	50	60	63	65	60	47	42	37	69
	Off Peak (kW)	0	0	0	0	0	59	63	66	59	0	0	0	66

Built By:

Dataset Name: CITYOF~1

Equipment Energy Consumption Report

Port St Lucie_St Golf Club

Alternative - 3

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	4,464	4,032	4,464	4,320	4,464	4,320	4,464	4,464	4,320	4,464	4,320	4,464	52,560
Lights	Elec(kWh)	6,812	6,153	6,812	6,592	6,812	6,592	6,812	6,812	6,592	6,812	6,592	6,812	80,209
Fans:														
System 1	Elec(kWh)	1,610	1,454	1,610	1,558	1,610	1,558	1,610	1,610	1,558	1,610	1,558	1,610	18,954
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	2,740	2,259	5,384	7,026	8,117	10,227	12,208	12,548	11,012	7,387	5,429	4,509	88,846
Condenser fan for MZ rooftop	Elec(kWh)	439	366	761	922	1,038	1,219	1,409	1,432	1,292	969	759	652	11,258
Cooling accessories	Elec(kWh)	71	64	77	75	78	76	81	80	76	78	72	74	901
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	1	166	0	0	0	0	0	0	0	0	0	0	167

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	16,136	14,495	19,107	20,493	22,119	3,061	2,949	3,572	2,849	21,320	18,730	18,122	162,954
	Off Peak(kWh)	0	0	0	0	0	20,931	23,634	23,375	22,001	0	0	0	89,941
Electrical Demand	Peak (kW)	30	39	40	43	47	55	58	60	55	44	40	41	60
	Off Peak (kW)	0	0	0	0	0	54	58	60	55	0	0	0	60

Alternative - 4

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Base utility	Elec(kWh)	4,464	4,032	4,464	4,320	4,464	4,320	4,464	4,464	4,320	4,464	4,320	4,464	52,560
Lights	Elec(kWh)	6,812	6,153	6,812	6,592	6,812	6,592	6,812	6,812	6,592	6,812	6,592	6,812	80,209
Fans:														
System 1	Elec(kWh)	1,429	1,291	1,429	1,383	1,429	1,383	1,429	1,429	1,383	1,429	1,383	1,429	16,825
Cooling:														
P1 Split System-RAUC-20+ Ton-Scrol	Elec(kWh)	2,275	1,880	4,726	6,234	7,267	9,293	11,160	11,504	9,989	6,587	4,781	3,867	79,562
Condenser fan for MZ rooftop	Elec(kWh)	369	306	679	839	951	1,136	1,321	1,344	1,203	883	681	572	10,285
Cooling accessories	Elec(kWh)	86	80	89	86	89	86	89	89	87	89	86	89	1,047
Heating:														
P1 Electric Resistance Heat	Elec(kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0

Utility Summary:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Electrical Consumption	Peak(kWh)	15,436	13,742	18,200	19,454	21,013	2,918	2,821	3,421	2,714	20,265	17,844	17,234	155,061
	Off Peak(kWh)	0	0	0	0	0	19,892	22,455	22,220	20,860	0	0	0	85,427
Electrical Demand	Peak (kW)	29	29	38	42	45	53	56	58	53	43	38	36	58
	Off Peak (kW)	0	0	0	0	0	52	56	58	52	0	0	0	58

Built By:

Dataset Name: CITYOF~1

Economic Comparison Report

Cost Summary

Alternative Number	Installed Cost	First Year Utility Cost	Final Year Utility Cost	First Year Maint. Cost	Final Year Maint. Cost	Life Cycle Cost
1	$0	$27,185	$68,695	$0	$0	$329,265
2	$0	$24,348	$61,526	$0	$0	$294,902
3	$0	$22,821	$57,669	$0	$0	$276,415
4	$0	$21,688	$54,804	$0	$0	$262,687

Whispering Pines

Location	
Building owner	**City of port st Lucie**
Program user	
Company	
Comments	

By	**Honeywell**
Dataset name	**D:\PROJECTS\PORT ST LUCIE\BUILDING MODELLING\WHISPERING PINES\PSL_WHISP_A_1.TRC**

Calculation time	**01:16 PM on 01/23/2012**
TRACE® 700 version	**6.2.7**

Location	**West Palm Beach, Florida**	
Latitude	**26.7**	**deg**
Longitude	**80.2**	**deg**
Time Zone	**5**	
Elevation	**15**	**ft**
Barometric pressure	**29.9**	**in. Hg**
Air density	**0.0760**	**lb/cu ft**
Air specific heat	**0.2444**	**Btu/lb·°F**
Density-specific heat product	**1.1147**	**Btu/h·cfm·°F**
Latent heat factor	**4,906.9**	**Btu·min/h·cu ft**
Enthalpy factor	**4.5604**	**lb·min/hr·cu ft**
Summer design dry bulb	**92**	**°F**
Summer design wet bulb	**79**	**°F**
Winter design dry bulb	**45**	**°F**
Summer clearness number	**0.90**	
Winter clearness number	**0.95**	
Summer ground reflectance	**0.20**	
Winter ground reflectance	**0.20**	
Carbon Dioxide Level	**400**	**ppm**

Design simulation period	**January - December**
Cooling load methodology	**CLTD-CLF (ASHRAE TFM)**
Heating load methodology	**UATD**

MONTHLY ENERGY CONSUMPTION

By Honeywell

------- Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 1	**Alternative - 1**												
Electric													
On-Pk Cons. (kWh)	10,286	9,785	13,378	15,253	17,028	19,183	22,046	22,739	20,898	16,225	12,948	11,847	191,614
On-Pk Demand (kW)	50	38	31	36	38	47	50	50	48	39	32	28	50

Energy Consumption		
Building	35,389	Btu/(ft2-year)
Source	106,176	Btu/(ft2-year)
Floor Area	18,480	ft2

Environmental Impact Analysis	
CO2	1,304,518 lbm/year
SO2	3,701 gm/year
NOX	2,093 gm/year

Alternative: 2	PSL_Whispering_ECM_Lighting												
Electric													
On-Pk Cons. (kWh)	6,218	6,920	8,918	10,890	12,494	14,784	17,441	18,115	16,438	11,470	8,449	7,274	139,409
On-Pk Demand (kW)	49	50	22	27	30	38	41	41	39	28	23	19	50

Energy Consumption		
Building	25,747	Btu/(ft2-year)
Source	77,249	Btu/(ft2-year)
Floor Area	18,480	ft2

Environmental Impact Analysis	
CO2	949,105 lbm/year
SO2	2,693 gm/year
NOX	1,523 gm/year

MONTHLY ENERGY CONSUMPTION

By Honeywell

------ Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 3 PSL_Whispering_ECM_Infill													
Electric													
On-Pk Cons. (kWh)	5,684	5,178	8,156	9,214	10,124	11,625	12,959	13,226	11,837	9,416	7,655	7,030	112,103
On-Pk Demand (kW)	12	15	20	23	24	28	29	29	28	23	20	18	29

Energy Consumption		
Building	20,704	Btu/(ft2-year)
Source	62,118	Btu/(ft2-year)
Floor Area	18,480	ft2

Environmental Impact Analysis	
CO2	763,202 lbm/year
SO2	2,166 gm/year
NOX	1,225 gm/year

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 4 PSL_Whispering_ECM_New DX Units													
Electric													
On-Pk Cons. (kWh)	5,516	4,995	7,036	7,718	8,434	9,672	10,850	11,112	9,871	7,912	6,639	6,295	96,051
On-Pk Demand (kW)	12	13	17	19	20	24	25	25	24	19	16	14	25

Energy Consumption		
Building	17,739	Btu/(ft2-year)
Source	53,223	Btu/(ft2-year)
Floor Area	18,480	ft2

Environmental Impact Analysis	
CO2	653,917 lbm/year
SO2	1,855 gm/year
NOX	1,049 gm/year

MONTHLY ENERGY CONSUMPTION

By Honeywell

------ Monthly Energy Consumption -------

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 4 **PSL_Whispering_ECM_New DX Units**													
Electric													
On-Pk Cons. (kWh)	5,516	4,995	7,036	7,718	8,434	9,672	10,850	11,112	9,871	7,912	6,639	6,295	96,051
On-Pk Demand (kW)	12	13	17	19	20	24	25	25	24	19	16	14	25

Energy Consumption		
Building	17,739	Btu/(ft2-year)
Source	53,223	Btu/(ft2-year)
Floor Area	18,480	ft2

Environmental Impact Analysis	
CO2	653,917 lbm/year
SO2	1,855 gm/year
NOX	1,049 gm/year

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative: 5 **PSL_Whispering_ECM_DCV**													
Electric													
On-Pk Cons. (kWh)	5,694	5,216	6,910	7,381	7,929	8,586	9,407	9,534	8,648	7,465	6,502	6,314	89,584
On-Pk Demand (kW)	12	13	17	19	20	24	25	25	24	19	16	15	25

Energy Consumption		
Building	16,545	Btu/(ft2-year)
Source	49,640	Btu/(ft2-year)
Floor Area	18,480	ft2

Environmental Impact Analysis	
CO2	609,889 lbm/year
SO2	1,731 gm/year
NOX	979 gm/year

ELECTRICAL PEAK CHECKSUMS

By Honeywell

Alternative 1 **Alternative - 1**

Yearly Time of Peak: 18(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		33.73	67.21
	Sub total	33.73	67.21
Fan Equipment			
Sys 1: System 1		1.75	3.49
	Sub total	1.75	3.49
Miscellaneous			
Lights		11.90	23.71
Base Utilities		1.60	3.19
Misc Equipment		1.20	2.39
	Sub total	14.70	29.29
	Total	50.18	100

Alternative 2 **PSL_Whispering_ECM_Ligh**

Yearly Time of Peak: 6(Hr) 2(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		0.82	1.64
	Sub total	0.82	1.64
Heating Equipment			
Electric resistance - 001		39.99	79.90
	Sub total	39.99	79.90
Fan Equipment			
Sys 1: System 1		1.58	3.16
	Sub total	1.58	3.16
Miscellaneous			
Lights		5.58	11.14
Misc Equipment		0.48	0.96
Base Utilities		1.60	3.20
	Sub total	7.66	15.30
	Total	50.05	100

ELECTRICAL PEAK CHECKSUMS

By Honeywell

Alternative 3 **PSL_Whispering_ECM_Infil**

Yearly Time of Peak: 18(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		20.14	68.52
	Sub total	20.14	68.52
Fan Equipment			
Sys 1: System 1		0.88	2.98
	Sub total	0.88	2.98
Miscellaneous			
Lights		5.58	18.97
Base Utilities		1.60	5.44
Misc Equipment		1.20	4.09
	Sub total	8.38	28.50
	Total	29.40	100

Alternative 4 **PSL_Whispering_ECM_New**

Yearly Time of Peak: 18(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		16.13	63.54
	Sub total	16.13	63.54
Fan Equipment			
Sys 1: System 1		0.88	3.45
	Sub total	0.88	3.45
Miscellaneous			
Misc Equipment		1.20	4.73
Lights		5.58	21.97
Base Utilities		1.60	6.30
	Sub total	8.38	33.00
	Total	25.39	100

ELECTRICAL PEAK CHECKSUMS

By Honeywell

Alternative 4 **PSL_Whispering_ECM_New**

Yearly Time of Peak: 18(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		16.13	63.54
	Sub total	16.13	63.54
Fan Equipment			
Sys 1: System 1		0.88	3.45
	Sub total	0.88	3.45
Miscellaneous			
Misc Equipment		1.20	4.73
Base Utilities		1.60	6.30
Lights		5.58	21.97
	Sub total	8.38	33.00
	Total	25.39	100

Alternative 5 **PSL_Whispering_ECM_DCV**

Yearly Time of Peak: 18(Hr) 8(Month)

Equipment Description		Electrical Demand (kw)	Percent of Total (%)
Cooling Equipment			
Air-cooled unitary - 1		15.91	63.23
	Sub total	15.91	63.23
Fan Equipment			
Sys 1: System 1		0.88	3.48
	Sub total	0.88	3.48
Miscellaneous			
Misc Equipment		1.20	4.77
Base Utilities		1.60	6.36
Lights		5.58	22.16
	Sub total	8.38	33.29
	Total	25.17	100

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 1				
Primary heating				
Primary heating	528	0.3 %	1,804	5,412
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**528**	**0.3 %**	**1,804**	**5,412**
Primary cooling				
Cooling Compressor	73,275	38.2 %	250,086	750,334
Tower/Cond Fans	10,782	5.6 %	36,799	110,408
Condenser Pump		0.0 %	0	0
Other Clg Accessories	641	0.3 %	2,188	6,565
Cooling Subtotal....	**84,698**	**44.2 %**	**289,073**	**867,307**
Auxiliary				
Supply Fans	15,340	8.0 %	52,356	157,084
Pumps		0.0 %	0	0
Stand-alone Base Utilities	14,016	7.3 %	47,837	143,524
Aux Subtotal....	29,356	15.3 %	100,193	300,608
Lighting				
Lighting	71,946	37.6 %	245,551	736,728
Receptacle				
Receptacles	5,086	2.7 %	17,358	52,080
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**191,614**	**100.0 %**	**653,979**	**1,962,134**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Project Name: City of PSL_Whispering Pine
Dataset Name: PSL_WHISP_A_1.TRC

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 2				
Primary heating				
Primary heating	1,361	1.0 %	4,644	13,932
Other Htg Accessories		0.0 %	0	0
Heating Subtotal	**1,361**	**1.0 %**	**4,644**	**13,932**
Primary cooling				
Cooling Compressor	60,619	43.5 %	206,891	620,735
Tower/Cond Fans	8,879	6.4 %	30,304	90,921
Condenser Pump		0.0 %	0	0
Other Clg Accessories	574	0.4 %	1,958	5,876
Cooling Subtotal....	**70,071**	**50.3 %**	**239,153**	**717,532**
Auxiliary				
Supply Fans	13,844	9.9 %	47,250	141,765
Pumps		0.0 %	0	0
Stand-alone Base Utilities	14,016	10.1 %	47,837	143,524
Aux Subtotal....	27,860	20.0 %	95,087	285,289
Lighting				
Lighting	35,032	25.1 %	119,563	358,724
Receptacle				
Receptacles	5,086	3.7 %	17,358	52,080
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**139,409**	**100.0 %**	**475,805**	**1,427,556**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Project Name: City of PSL_Whispering Pine
Dataset Name: PSL_WHISP_A_1.TRC

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 3				
Primary heating				
Primary heating		0.0 %	0	0
Other Htg Accessories		0.0 %	0	0
Heating Subtotal		**0.0 %**	**0**	**0**
Primary cooling				
Cooling Compressor	43,316	38.6 %	147,838	443,558
Tower/Cond Fans	6,397	5.7 %	21,833	65,505
Condenser Pump		0.0 %	0	0
Other Clg Accessories	577	0.5 %	1,969	5,909
Cooling Subtotal....	**50,290**	**44.9 %**	**171,640**	**514,972**
Auxiliary				
Supply Fans	7,680	6.9 %	26,210	78,639
Pumps		0.0 %	0	0
Stand-alone Base Utilities	14,016	12.5 %	47,837	143,524
Aux Subtotal....	21,696	19.4 %	74,047	222,163
Lighting				
Lighting	35,032	31.3 %	119,563	358,724
Receptacle				
Receptacles	5,086	4.5 %	17,358	52,080
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**112,103**	**100.0 %**	**382,608**	**1,147,938**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Project Name: City of PSL_Whispering Pine
Dataset Name: PSL_WHISP_A_1.TRC

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 4				
Primary heating				
Primary heating		0.0 %	0	0
Other Htg Accessories		0.0 %	0	0
Heating Subtotal		**0.0 %**	**0**	**0**
Primary cooling				
Cooling Compressor	29,372	30.6 %	100,246	300,767
Tower/Cond Fans	4,145	4.3 %	14,146	42,442
Condenser Pump		0.0 %	0	0
Other Clg Accessories	721	0.8 %	2,462	7,386
Cooling Subtotal....	**34,238**	**35.7 %**	**116,853**	**350,595**
Auxiliary				
Supply Fans	7,680	8.0 %	26,210	78,639
Pumps		0.0 %	0	0
Stand-alone Base Utilities	14,016	14.6 %	47,837	143,524
Aux Subtotal....	21,696	22.6 %	74,047	222,163
Lighting				
Lighting	35,032	36.5 %	119,563	358,724
Receptacle				
Receptacles	5,086	5.3 %	17,358	52,080
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**96,051**	**100.0 %**	**327,821**	**983,561**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Project Name: City of PSL_Whispering Pine
Dataset Name: PSL_WHISP_A_1.TRC

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 1				
Primary heating				
Primary heating		0.0 %	0	0
Other Htg Accessories		0.0 %	0	0
Heating Subtotal		**0.0 %**	**0**	**0**
Primary cooling				
Cooling Compressor	29,372	30.6 %	100,246	300,767
Tower/Cond Fans	4,145	4.3 %	14,146	42,442
Condenser Pump		0.0 %	0	0
Other Clg Accessories	721	0.8 %	2,462	7,386
Cooling Subtotal....	**34,238**	**35.7 %**	**116,853**	**350,595**
Auxiliary				
Supply Fans	7,680	8.0 %	26,210	78,639
Pumps		0.0 %	0	0
Stand-alone Base Utilities	14,016	14.6 %	47,837	143,524
Aux Subtotal....	21,696	22.6 %	74,047	222,163
Lighting				
Lighting	35,032	36.5 %	119,563	358,724
Receptacle				
Receptacles	5,086	5.3 %	17,358	52,080
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**96,051**	**100.0 %**	**327,821**	**983,561**

* Note: Resource Utilization factors are included in the Total Source Energy value.

** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Project Name:
Dataset Name: PSL_WHISP_B_1.TRC

ENERGY CONSUMPTION SUMMARY

By Honeywell

	Elect Cons. (kWh)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 5				
Primary heating				
Primary heating		0.0 %	0	0
Other Htg Accessories		0.0 %	0	0
Heating Subtotal		**0.0 %**	**0**	**0**
Primary cooling				
Cooling Compressor	23,525	26.3 %	80,292	240,901
Tower/Cond Fans	3,490	3.9 %	11,912	35,739
Condenser Pump		0.0 %	0	0
Other Clg Accessories	755	0.8 %	2,577	7,733
Cooling Subtotal....	**27,771**	**31.0 %**	**94,781**	**284,372**
Auxiliary				
Supply Fans	7,680	8.6 %	26,210	78,639
Pumps		0.0 %	0	0
Stand-alone Base Utilities	14,016	15.7 %	47,837	143,524
Aux Subtotal....	21,696	24.2 %	74,047	222,163
Lighting				
Lighting	35,032	39.1 %	119,563	358,724
Receptacle				
Receptacles	5,086	5.7 %	17,358	52,080
Cogeneration				
Cogeneration		0.0 %	0	0
Totals				
Totals**	**89,584**	**100.0 %**	**305,749**	**917,339**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

Project Name:
Dataset Name: PSL_WHISP_B_1.TRC

Energy Cost Budget / PRM Summary

By Honeywell

Project Name: City of PSL_Whispering Pine	Date: January 23, 2012
City:	Weather Data: West Palm Beach, Florida

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-1 Alternative - 1			Alt-2 PSL_Whispering_ECM_Lig			Alt-3 PSL_Whispering_ECM_Inf			Alt-4 PSL_Whispering_ECM_Ne		
		Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	245.6	38	41	119.6	49	19	119.6	49	19	119.6	49	19
Space Heating	Electricity	1.8	0	117	4.6	257	136	0.0	0	0	0.0	0	0
	Gas	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Space Cooling	Electricity	252.3	39	105	208.8	83	98	149.8	59	61	102.7	41	50
Heat Rejection	Electricity	36.8	6	14	30.3	82	13	21.8	59	8	14.1	38	6
Fans - Conditioned	Electricity	52.4	8	6	47.3	90	5	26.2	50	3	26.2	50	3
Receptacles - Conditioned	Electricity	17.4	3	4	17.4	100	4	17.4	100	4	17.4	100	4
Stand-alone Base Utilities	Electricity	47.8	7	5	47.8	100	5	47.8	100	5	47.8	100	5
Total Building Consumption		**654.0**			**475.8**			**382.6**			**327.8**		

		* Alt-1 Alternative - 1	Alt-2 PSL_Whispering_ECM_Lig	Alt-3 PSL_Whispering_ECM_Inf	Alt-4 PSL_Whispering_ECM_Ne
Total	**Number of hours heating load not met**	0	0	0	0
	Number of hours cooling load not met	0	0	0	0

	* Alt-1 Alternative - 1			Alt-2 PSL_Whispering_ECM_Lig			Alt-3 PSL_Whispering_ECM_Inf			Alt-4 PSL_Whispering_ECM_Ne		
	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr
Electricity	654.0	15,903		475.8	12,128		382.6	9,246		327.8	7,922	
Total	**654**	**15,903**		**476**	**12,128**		**383**	**9,246**		**328**	**7,922**	

Energy Cost Budget / PRM Summary

By Honeywell

Project Name:	Date: January 23, 2012
City:	Weather Data: West Palm Beach, Florida

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-1 PSL_Whispering_ECM_N			Alt-2 PSL_Whispering_ECM_DC		
		Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	119.6	36	19	119.6	100	19
Space Heating	Electricity	0.0	0	0	0.0	0	0
	Gas	0.0	0	0	0.0	0	0
Space Cooling	Electricity	102.7	31	50	82.9	81	49
Heat Rejection	Electricity	14.1	4	6	11.9	84	6
Fans - Conditioned	Electricity	26.2	8	3	26.2	100	3
Receptacles - Conditioned	Electricity	17.4	5	4	17.4	100	4
Stand-alone Base Utilities	Electricity	47.8	15	5	47.8	100	5
Total Building Consumption		**327.8**			**305.7**		

		* Alt-1 PSL_Whispering_ECM_N	Alt-2 PSL_Whispering_ECM_DC
Total	**Number of hours heating load not met**	0	0
	Number of hours cooling load not met	0	0

	* Alt-1 PSL_Whispering_ECM_N			Alt-2 PSL_Whispering_ECM_DC		
	Energy 10^6 Btu/yr	Cost/yr	$/yr	Energy 10^6 Btu/yr	Cost/yr	$/yr
Electricity	327.8	7,922		305.7	7,547	
Total	**328**	**7,922**		**306**	**7,547**	

MONTHLY UTILITY COSTS

By Honeywell

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	------- Monthly Utility Costs -------												
Alternative 1													
Electric													
On-Pk Cons. ($)	589	561	767	874	976	1,099	1,263	1,303	1,197	930	742	679	10,979
Off-Pk Cons. ($)	16	16	16	16	16	16	16	16	16	16	16	16	197
On-Pk Demand ($)	487	373	298	348	373	454	483	488	464	382	308	269	4,727
Total ($):	1,093	950	1,081	1,238	1,365	1,569	1,762	1,807	1,678	1,328	1,066	964	15,903
Monthly Total ($):	1,093	950	1,081	1,238	1,365	1,569	1,762	1,807	1,678	1,328	1,066	964	15,903

Building Area = 18,480 ft²

Utility Cost Per Area = 0.86 $/ft²

Alternative 2													
Electric													
On-Pk Cons. ($)	356	397	511	624	716	847	999	1,038	942	657	484	417	7,988
Off-Pk Cons. ($)	16	16	16	16	16	16	16	16	16	16	16	16	197
On-Pk Demand ($)	472	487	214	262	291	365	395	400	375	276	223	185	3,943
Total ($):	844	899	741	902	1,023	1,228	1,411	1,454	1,333	950	723	619	12,128
Monthly Total ($):	844	899	741	902	1,023	1,228	1,411	1,454	1,333	950	723	619	12,128

Building Area = 18,480 ft²

Utility Cost Per Area = 0.66 $/ft²

MONTHLY UTILITY COSTS

By Honeywell

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
					------- Monthly Utility Costs -------								
Alternative 3													
Electric													
On-Pk Cons. ($)	326	297	467	528	580	666	743	758	678	540	439	403	6,424
Off-Pk Cons. ($)	16	16	16	16	16	16	16	16	16	16	16	16	197
On-Pk Demand ($)	118	144	199	227	236	272	281	286	274	224	193	172	2,625
Total ($):	460	457	683	771	833	954	1,040	1,060	969	779	648	591	9,246
Monthly Total ($):	460	457	683	771	833	954	1,040	1,060	969	779	648	591	9,246

Building Area = 18,480 ft²

Utility Cost Per Area = 0.50 $/ft²

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Alternative 4													
Electric													
On-Pk Cons. ($)	316	286	403	442	483	554	622	637	566	453	380	361	5,504
Off-Pk Cons. ($)	16	16	16	16	16	16	16	16	16	16	16	16	197
On-Pk Demand ($)	113	122	163	188	196	232	242	247	235	185	158	140	2,221
Total ($):	446	424	583	646	696	803	880	900	817	654	555	517	7,922
Monthly Total ($):	446	424	583	646	696	803	880	900	817	654	555	517	7,922

Building Area = 18,480 ft²

Utility Cost Per Area = 0.43 $/ft²

Project Name:
Dataset Name: PSL_WHISP_A_1.TRC

TRACE® 700 v6.2.7 calculated at 01:16 PM on 01/23/2012
Monthly Utility Costs Page 2 of 2

MONTHLY UTILITY COSTS

By Honeywell

Utility	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	------- Monthly Utility Costs -------												
Alternative 4													
Electric													
On-Pk Cons. ($)	316	286	403	442	483	554	622	637	566	453	380	361	5,504
Off-Pk Cons. ($)	16	16	16	16	16	16	16	16	16	16	16	16	197
On-Pk Demand ($)	113	122	163	188	196	232	242	247	235	185	158	140	2,221
Total ($):	446	424	583	646	696	803	880	900	817	654	555	517	7,922
Monthly Total ($):	446	424	583	646	696	803	880	900	817	654	555	517	7,922
Building Area =	18,480 ft²												
Utility Cost Per Area =	0.43 $/ft²												
Alternative 5													
Electric													
On-Pk Cons. ($)	326	299	396	423	454	492	539	546	496	428	373	362	5,133
Off-Pk Cons. ($)	16	16	16	16	16	16	16	16	16	16	16	16	197
On-Pk Demand ($)	114	127	162	186	194	229	240	245	232	183	157	149	2,217
Total ($):	457	442	575	625	665	738	795	807	744	627	546	527	7,547
Monthly Total ($):	457	442	575	625	665	738	795	807	744	627	546	527	7,547
Building Area =	18,480 ft²												
Utility Cost Per Area =	0.41 $/ft²												

Economic Summary

Project Information

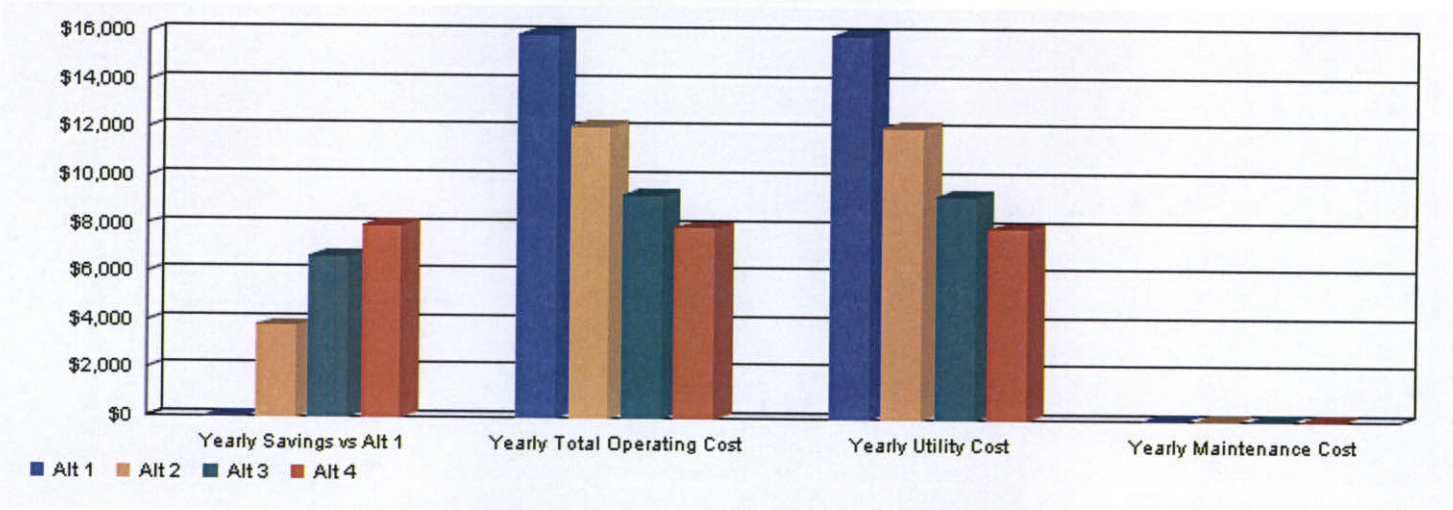
Location
Project Name: City of PSL_Whispering Pine
User
Company
Comments

Study Life: 20 years
Cost of Capital: 10 %
Alternative 1: Baseline
Alternative 2: PSL_Whispering_ECM_Lighting
Alternative 3: PSL_Whispering_ECM_Infil
Alternative 4: PSL_Whispering_ECM_New DX Units

Economic Comparison of Alternatives

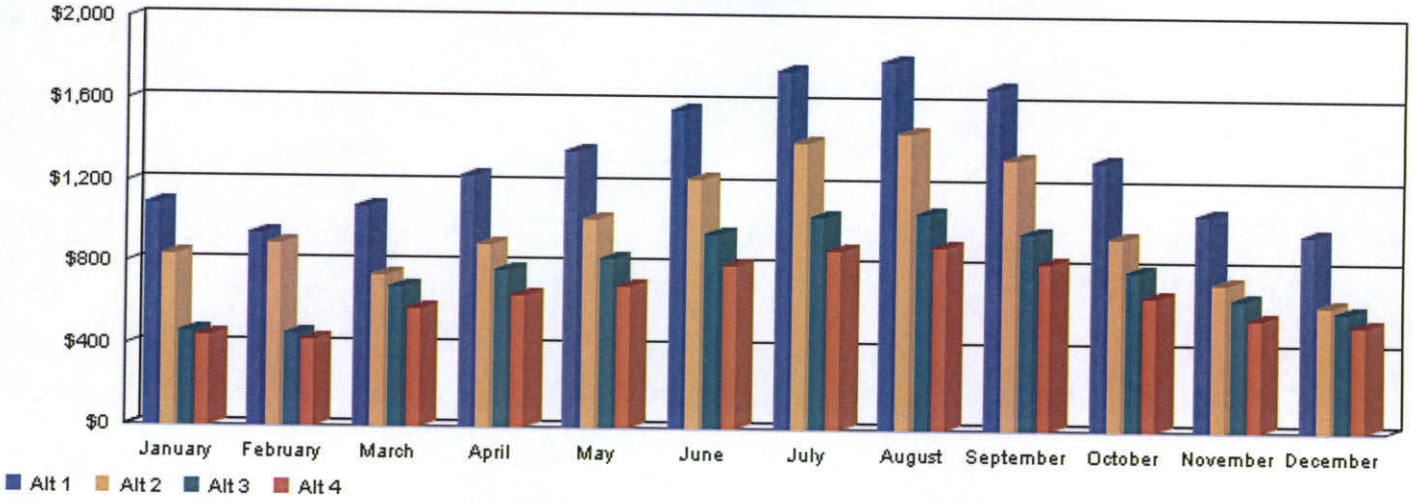
	Yearly Savings ($)	First Cost Difference ($)	Cumulative Cash Flow Difference ($)	Simple Payback (yrs.)	Net Present Value ($)	Life Cycle Payback (yrs.)	Internal Rate of Return (%)	Life Cycle Cost
Alt 1 vs Alt 2	-3,775	0	-124,822	No Payback	-45,722	No Payback	Does Not Payback	-45,722.38
Alt 1 vs Alt 3	-6,657	0	-220,130	No Payback	-80,634	No Payback	Does Not Payback	-80,633.59
Alt 1 vs Alt 4	-7,982	0	-263,926	No Payback	-96,676	No Payback	Does Not Payback	-96,676.35
Alt 2 vs Alt 3	-2,882	0	-95,308	No Payback	-34,911	No Payback	Does Not Payback	-34,911.21
Alt 2 vs Alt 4	-4,207	0	-139,104	No Payback	-50,954	No Payback	Does Not Payback	-50,953.98
Alt 3 vs Alt 4	-1,325	0	-43,797	No Payback	-16,043	No Payback	Does Not Payback	-16,042.77

Annual Operating Costs



	Yearly Savings vs Alt 1	Yearly Total Operating Cost ($)	Yearly Utility Cost ($)	Yearly Maintenance Cost ($)	Plant kWh/ton-hr
Alt 1	0	15,903	15,903	0	0.000
Alt 2	3,775	12,128	12,128	0	0.000
Alt 3	6,657	9,246	9,246	0	0.000
Alt 4	7,982	7,922	7,922	0	0.000

Monthly Utility Costs



Economic Summary

Project Information

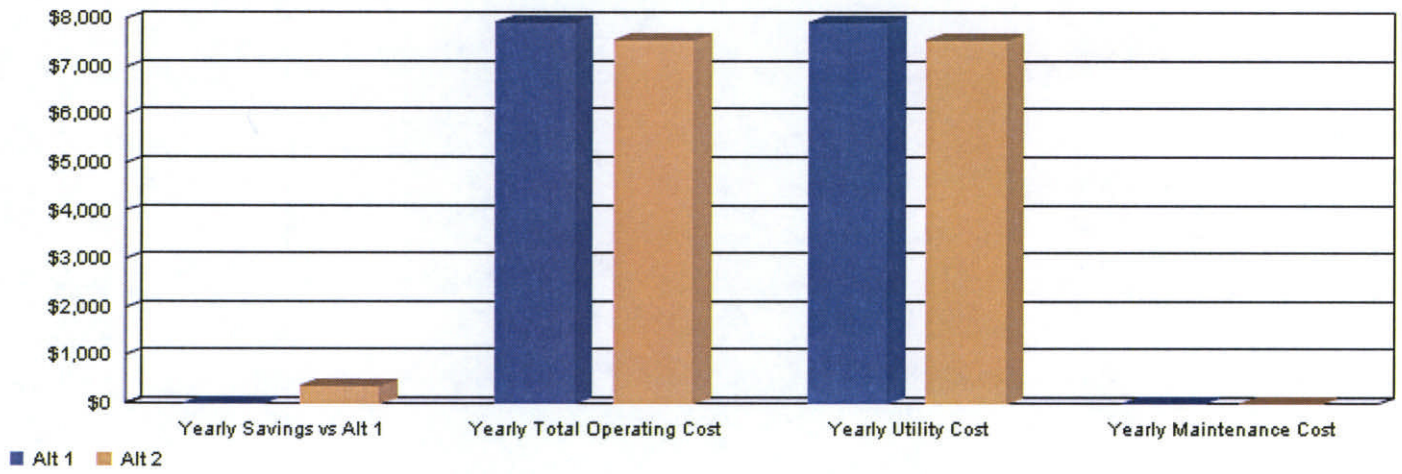
Location
Project Name
User
Company
Comments

Study Life: 20 years
Cost of Capital: 10 %
Alternative 4: PSL_Whispering_ECM_New DX Units
Alternative 5: PSL_Whispering_ECM_DCV

Economic Comparison of Alternatives

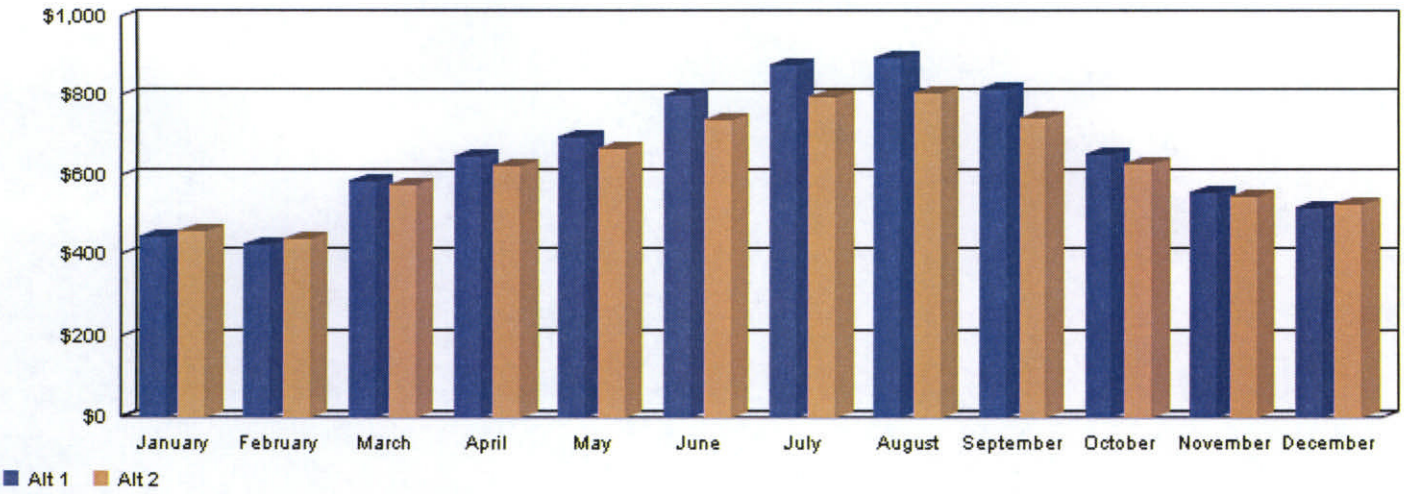
	Yearly Savings ($)	First Cost Difference ($)	Cumulative Cash Flow Difference ($)	Simple Payback (yrs.)	Net Present Value ($)	Life Cycle Payback (yrs.)	Internal Rate of Return (%)	Life Cycle Cost
Alt 1 vs Alt 2	-374	0	-12,371	No Payback	-4,531	No Payback	Does Not Payback	-4,531.50

Annual Operating Costs



	Yearly Savings vs Alt 1	Yearly Total Operating Cost ($)	Yearly Utility Cost ($)	Yearly Maintenance Cost ($)	Plant kWh/ton-hr
Alt 1	0	7,922	7,922	0	0.000
Alt 2	374	7,547	7,547	0	0.000

Monthly Utility Costs



Cost of Operations

	Annual Internal Costs ($)	Annual Internal Costs ($)	Annual Subcontrctor Costs ($)	Deferred Maintenance Cost ($)	Budgeted Replacement Capital Cost ($)
Sports Lighting (Relamping)	labor	materials			
Sportsman's Park West	$100.00	$100.00	$6,092.00	N/A	$150,120.00
Sportsman's Park	$180.00	$660.00	$2,648.00	N/A	$137,610.00
Lyngate Park	$120.00	$560.00	$2,648.00	N/A	$75,060.00
Swan Park	$100.00	$100.00	$9,711.00	N/A	$725,000.00
Sandhill Crane Park	$120.00	$660.00	$6,395.00	N/A	$291,900.00
Whispering Pines Park	$280.00	$1,395.00	$10,685.00	N/A	$326,500
McChesney Park	$100.00	$100.00	$7,341.00	N/A	$286,340.00
City Hall Complex Chiller Maintenance					
City Hall A Chiller 1	$2,940	$2,021.00		N/A	$75,182.00
City Hall A Chiller 2	$2,940	$2,021.00		N/A	$75,182.00
City Hall B Chiller 1	$2,717	$1,702.00		N/A	$57,302.00
City Hall B Chiller 2	$2,717	$1,702.00		N/A	$57,302.00
City Hall C Chiller 1	$3,111	$2,100.00		$48,618.00	$48,618.00
City Hall C Chiller 2	$2,302	$1,670.00		N/A	$41,706.00
City Hall Complex Chiller Replacements					
City Hall A Chiller 1 (125 ton machine)	$2,800	$75,182.00		N/A	$75,182.00
City Hall A Chiller 2 (125 ton machine)	$2,800	$75,182.00		N/A	$75,182.00
City Hall C Chiller 1 (80 ton machine)	$2,800	$48,615.00		$48,618.00	$48,618.00
Community Center AHU and Condenser Maintenance					
AHU-1 and CU-1	$2,000	$1,854.00		N/A	$33,017.00
AHU-2 and CU-2	$2,100	$1,911.00		N/A	$25,162.00
Hot and Cold calls for space temperature setpoints	$9,100	$3,227.00			
Total O&M / Capital Benefits	$39,327.00	$220,762.00		97236	2604983

CITY OF PORT ST. LUCIE
CALCULATION OF ADMINISTRATIVE OVERHEAD CHARGES
FY 2011-2012

General Fund Depts.	*Current Projected Budget	%	CRA $'s	Stormwater %	Stormwater $'s		Golf Course Fund	%	Road & Bridge CIP	Road & Bridge %	Road & Bridge $'s	Building Dept. %	Building Dept. $'s	P.S.L. Utilities %	P.S.L. Utilities $'s	Total Allocation
City Manager	$581,754	0%	$0	15%	$87,263			20%	$116,351	2%	$11,635	2%	$11,635	15%	$87,263	$314,147
Finance	1,424,808	0.0%	$0	11%	156,729	4%	56,992	3%	$42,744	7%	99,737	5%	71,240	17%	242,217	669,660
Garage	99,833	-		17%	17,037	2%	1,993	0%	$0	14%	13,949	3%	2,989	23%	22,916	58,883
Human Resources	829,703			7%	58,079					6%	49,782	4%	33,188	25%	207,426	348,475
Risk Management	299,316			11%	32,925					11%	32,925	4%	11,973	32%	95,781	173,603
Bldg. Maintenance	690,789			2.0%	17,816		8,908	1%		2.0%	17,816	1%	8,908	1%	12,471	65,918
Community Svcs	132,082	0%	$0	3%	3,962					0%	0	0%	0	8%	10,567	$14,529
Communications	829,703	0%	$ -	15%	124,455					15%	124,455	5%	41,485	10%	82,970	373,366
Info. Services	1,937,114			15%	290,567		-	0%		15%	290,567	5%	96,856	10%	193,711	871,701
A/C Maintenance	307,720			2%	6,154	8%	24,618			2%	6,154	3%	9,232	43%	132,320	178,478
OMB	976,243			5%	48,912					5%	48,912	2%	19,565	18%	176,084	293,473
Planning Department	971,946	0%	0	0%	0					2%	19,439	0%	0	2%	19,439	38,878
Legal	1,141,781	0%	0	7%	79,925	2%	6,154			22%	251,192	5%	57,069	15%	171,267	559,473
City Clerk	666,914	0%	$0	5%	33,346					5%	33,346	0%	0	12%	80,030	$146,721
Gen. Govt.	0												0			0
				0%	0					0%	0	0%	0	0%	0	0
		Totals	$0	Totals	$957,171	Totals	$98,665	Total	$159,095		$999,909		$364,159		$1,534,461	$4,107,306
Occupational Licensing			67,500										0			

O.K.

FOR 2011 11

ACCOUNTS FOR: 001 GENERAL FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
0014136 AIR CONDITIONING MAINTENANCE							
51 PERSONAL SERVICES							
0014136 512000 00000 SALARIES AND W	147,347	147,347	136,176.92	13,436.76	.00	11,170.08	92.4%*
0014136 514000 00000 OVERTIME/SPECI	3,000	3,000	2,725.16	906.38	.00	274.84	90.8%
0014136 521001 00000 F.I.C.A	9,322	9,322	8,387.08	1,110.54	.00	934.92	90.0%
0014136 521002 00000 MANDATORY MEDI	2,180	2,180	1,961.47	259.74	.00	218.53	90.0%
0014136 522000 00000 RETIREMENT CON	15,786	15,786	14,402.54	1,918.94	.00	1,383.46	91.2%
0014136 523000 00000 LIFE & HEALTH	46,551	46,551	34,913.25	.00	.00	11,637.75	75.0%
0014136 523200 00000 OTHER POST EMP	4,138	4,138	4,138.00	.00	.00	.00	100.0%*
0014136 524000 00000 WORKMEN'S COMP	7,128	7,128	7,128.00	.00	.00	.00	100.0%*
0014136 525000 00000 UNEMPLOYMENT C	752	752	.00	.00	.00	752.00	.0%
TOTAL PERSONAL SERVICES	236,204	236,204	209,832.42	17,632.36	.00	26,371.58	88.8%
53 OPERATING EXPENSES							
0014136 534000 00000 OTHER CONTRACT	1,000	1,000	815.47	68.20	.00	184.53	81.5%
0014136 540100 00000 GAS & OIL	4,500	4,500	4,577.78	678.30	.00	-77.78	101.7%*
0014136 540300 00000 REPAIRS & MAIN	1,262	1,262	1,003.00	100.50	223.00	36.00	97.1%*
0014136 540301 00000 FLEET MAINTENA	0	300	186.52	.00	.00	113.48	62.2%
0014136 541000 00000 COMMUNICATIONS	2,000	2,000	1,291.84	85.39	.00	708.16	64.6%
0014136 544200 00000 RENTALS & LEAS	350	350	.00	.00	.00	350.00	.0%
0014136 545000 00000 INSURANCE	4,254	4,254	4,254.00	.00	.00	.00	100.0%*
0014136 546100 00000 REPAIR & MAINT	0	250	238.81	.00	.00	11.19	95.5%*
0014136 546200 00000 REPAIR & MAINT	26,100	1,000	.00	.00	.00	1,000.00	.0%
0014136 546300 00000 REPAIR & MAINT	500	49,600	48,353.21	7,057.87	.00	1,246.79	97.5%*
0014136 547000 00000 PRINTING & BIN	100	100	.00	.00	.00	100.00	.0%
0014136 549000 00000 OTHER CURRENT	250	250	.00	.00	.00	250.00	.0%
0014136 551000 00000 OFFICE SUPPLIE	5,900	5,350	849.70	505.75	.00	4,500.30	15.9%
0014136 552000 00000 OPERATING SUPP	25,000	1,000	415.88	.00	.00	584.12	41.6%
0014136 554100 00000 TRAINING AND E	300	300	.00	.00	.00	300.00	.0%
TOTAL OPERATING EXPENSES	71,516	71,516	61,986.21	8,496.01	223.00	9,306.79	87.0%
59 OTHER NON-OPERATING							
0014136 599998 00000 LESS CHARGES	-182,951	-182,951	-167,706.00	-15,246.00	.00	-15,245.00	91.7%

27,000

12,000

2011 11

NTS FOR: GENERAL FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL OTHER NON-OPERATING	-182,951	-182,951	-167,706.00	-15,246.00	.00	-15,245.00	91.7%
TOTAL AIR CONDITIONING MAINTENANC	124,769	124,769	104,112.63	10,882.37	223.00	20,433.37	83.6%

Request for information, #8, a&b

This bundle contains information for:

(a)---copies of the past 5 years maintenance agreements for Sports Field lighting.

(b)---a breakdown of hours per use per site for various sites.

Randy Ellman

From: Gina Jolly
Sent: Wednesday, November 16, 2011 10:06 AM
To: Randy Ellman
Subject: Davco
Attachments: 20060409.pdf; 20060586.pdf; 20061001.pdf; 20070608.pdf; 20070902.pdf; 20080518.pdf; 20102675.pdf

I attached the po's that were found, some are for annual lighting, some repairs from hurricane and some from maint. repairs- not sure which you needed so I attached all I could find
They all have the description and the total highlighted
I did not find a contract as we piggy backed off Palm Beach, if needed I will have to get the contract specialist in my department to locate it, just let me know

Gina Jolly
Contract Facilitator
City of Port St. Lucie
Office of Management & Budget
772-344-4055

11/16/2011

PURCHASE ORDER

20060409-00 FY 2006

BILL TO

PARKS/REC, PARKS DIV, SPECIAL
DELIVER IN ACCORDANCE WITH
INSTRUCTIONS VERBALLY GIVEN
AND/OR ON PURCHASE ORDER, SEE TEXT

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

PARKS/REC, PARKS DIV, SPECIAL
DELIVER IN ACCORDANCE WITH
INSTRUCTIONS VERBALLY GIVEN
AND/OR ON PURCHASE ORDER,
SEE TEXT

Requisition
382

Delivery Reference
FOB Destination

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
11/30/05	196850	12/23/05	Vendor Vehicle	GENERAL GOVERNMENT

POST-IT NOTES

Vendor's work includes providing signed and sealed engineering documents for building codes and required City building Dept. permits.

Fax required insurance and worker's comp certificate withCity of PSL named as "additional insured for this project work" fax to (772) 871-5290 att: Gerry Melville

Call Mr. Melville at (772) 871-5099 to schedule installations.

VENDOR NOTES

Pricing per Palm Beach county School Board Contract #01C-23J. City Council approved 9/12/2005.
City contract #20050161

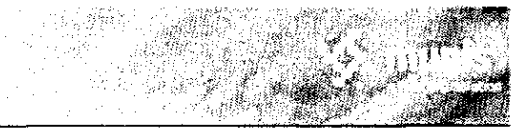
LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE
001	Supply all materials, equipment and labor to	1.00	EA	30180.000	30,180.00

install (3) football scoreboards, (2) at Sportman's West, 220 NW Irving St.

002	Supply all materials, equipment and labor to install (2) baseball scoreboards at Lyngate Park, 1301 SE Lyngate Dr.	1.00 EA	15392.000	15,392.00

PO TOTAL 45,572.00

** END OF REPORT - Generated by Gina Jolly '



PURCHASE ORDER

20060586-02 FY 2006

BILL TO

PARKS/REC, PARKS DIV, SPECIAL
DELIVER IN ACCORDANCE WITH
INSTRUCTIONS VERBALLY GIVEN
AND/OR ON PURCHASE ORDER, SEE TEXT

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

PARKS/REC, PARKS DIV, SPECIAL
DELIVER IN ACCORDANCE WITH
INSTRUCTIONS VERBALLY GIVEN
AND/OR ON PURCHASE ORDER,
SEE TEXT

Requisition
700

Delivery Reference
FOB Destination

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
01/11/06	196850	02/28/06	Vendor Vehicle	EMERGENCY & DISASTER RELIEF S

POST-IT NOTES

This order includes proposal items
#1-6, Sandhill Crane Park through
Jessica Clinton Park inclusive as
"circled".
Order does not include, items #7 and #8,
Swan and Mcchesney Parks.

Required Insurance with City of PSL as
"additional insured" faxed to City prior
to performance.

City contact Gerry Melville
(772) 871-5099 Cell 201-5629
Change Order 2/9/06-Added line #2
McChesney Park Site @ $55,889.00 and Swan
Park Site @ $20,124.00 Supplies and repair
s per proposals.

VENDOR NOTES

City Contract #20050161. Pricing per
Palm Beach County Schools contract
#01C-235 with term extension to
Feb. 18, 2006.

LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE
001	Supply materials, labor and equipment to repair and re-aim Musco Sports lighting systems per attached proposal dated 1/4/2006.	1.00	EA	193101.000	193,101.00
002	Supply materials, labor and equipment to repair and re-aim Musco Sports lighting systems per proposal dated 1/4/2006 for Swan Park=$20,124. and McChesney Park=$55,889.00	1.00	ea	76013.000	76,013.00

PO TOTAL 269,114.00

** END OF REPORT - Generated by Gina Jolly '

PURCHASE ORDER

20061001-00 FY 2006

BILL TO

SPORTMAN'S PARK
PARKS & RECREATION - PARKS
201 NW PRIMA VISTA BOULEVARD
PORT SAINT LUCIE , FL 34983

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

SPORTMAN'S PARK
PARKS & RECREATION - PARKS
201 NW PRIMA VISTA BOULEVARD
PORT SAINT LUCIE, FL
34983

Requisition
1187

Delivery Reference
FOB Destination

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
04/11/06	196850	08/30/06	vendor vehicle	PARKS & RECREATION

POST-IT NOTES

Contact Brad Keen, Acting Deputy Director of Parks prior to work to set schedule date and time.

VENDOR NOTES

Insurance on File
This is an emergency PO request due to the transformer leaking it is a safety and health hazard.

LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE
001	Replace leaking transformer at Sportsman's Park. This is an emergency PO due to safety hazard.	1.00	EA	28400.000	28,400.00

PO TOTAL 28,400.00

** END OF REPORT - Generated by Gina Jolly '

PURCHASE ORDER

20070608-00 FY 2007

BILL TO

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

PARKS/REC, PARKS DIV, SPECIAL DELIVER IN ACCORDANCE WITH INSTRUCTIONS VERBALLY GIVEN AND/OR ON PURCHASE ORDER, SEE TEXT

Requisition
661

Delivery Reference
vendor vehicle

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
12/01/06	196850	01/31/07	FOB Destination	PARKS & RECREATION

POST-IT NOTES

This is an "Estimated" order per City's submittal of lights out. Final Payment for each site will be made based on material & work provided and approved.
A change order will be issued as necessary

Fax Insurance certificate to 772-871-5290 Att: Gerry Melville with site names and City of PSL as additional insured prior to performance.

Other repairs or materials found to be necessary during performance shall be reported to the City's Electrician, James Barnwell, for his approval to proceed.

VENDOR NOTES

Pricing per Palm Beach County School Board contract #06C-41J
City Council approved piggybacking term contract on 11/13/2006

LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE

001	Supply sports lighting maintenance & repair services at PSL City Parks per estimated proposal dated November 20, 2006.	1.00	Each	8629.000	8,629.00

PO TOTAL 8,629.00

** END OF REPORT - Generated by Gina Jolly **

PURCHASE ORDER

20070902-02 FY 2007

BILL TO

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

LYNGATE PARK
PARKS & RECREATION - PARKS
1301 SE LYNGATE DRIVE
PORT SAINT LUCIE, FL
34952

Requisition
1019

Delivery Reference
Vendor Vehicle

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
02/01/07	196850	05/31/07	FOB Destination	PARKS & RECREATION

POST-IT NOTES

Change order 2/16/07 increased line 1 "not to exceed" 35,000 due to engineering code, and safety requiremments along with unknowns exxisting flooring. Costs will be per PB County contract specified line items work/materials verified by City Electricain

VENDOR NOTES

Vendor to submit a copy of insurance with City and Job site named as "additional insured"
Fax insurance to : Gerry Melville 772-871-5290

City shall coordinate installation time with vendor based on site closing availability for a period not to exceed one week.

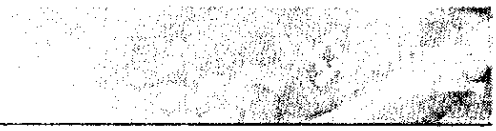
City continuing services contract # 20070011-BM Feb 21, 2006 to Feb. 11th 2011. per palm beach county schools

contract #06-41J

LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE
001	Supply engineering, materials, labor and equipment to renovate and upgrade the Lyngate Park main electrical switch gear room to current standards and acccmmodation of new sports lighting systems.	1.00	Each	35000.000	35,000.00

PO TOTAL 35,000.00

** END OF REPORT - Generated by Gina Jolly '



PURCHASE ORDER

20080518-00 FY 2008

BILL TO

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

PARKS/REC, PARKS DIV, SPECIAL DELIVER IN ACCORDANCE WITH INSTRUCTIONS VERBALLY GIVEN AND/OR ON PURCHASE ORDER, SEE TEXT

Requisition
325

Delivery Reference
Vendor Vehicle

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
11/19/07	196850	12/14/07	FOB Destination	PARKS & RECREATION

POST-IT NOTES

This "estimated" order is based on
City's report of lights out as of Oct 8th

Lights reported out at the following parks
1) Whispering Pines- 800 SW DarwinBlvd
(26) lights
2) Sandhill Crane- 2355 SE Scenic Pk Dr
(15) Lights
3) McChesney PK (soccer) 1585 SW
Cashmere Blvd (24) lights
4) Sportsman's West (football)
220 NW Irving St. (7) lights
5) Swan Park (Soccer) 700 SW
Carmelite St. (5) lights

Also reported for repairs:
Sandhill Crane Park: Portion of pole out,
possible lightning strike and wire harness
damage.
McChesney Park (Musco Green System,
eastern fields) 2-3 lights out for repair
uner warrantee.

VENDOR NOTES

City Continuing contract #2007001-BM
Feb 21, 2006 through Feb 11, 2011

Current Insurance Certificate on file
for specified work.

THIS IS AN "ESTIMATED " ORDER..
All work invoices shall be verified by
City's Electrician prior to submittal for
payment.

LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE
001	Per contract supply materials, labor, and equipment for annual Sports Lighting Maintenance in City's Parks.	1.00	Each	38000.000	38,000.00

PO TOTAL 38,000.00

** END OF REPORT - Generated by Gina Jolly '

PURCHASE ORDER

20102675-06 FY 2010

BILL TO

VENDOR

DAVCO ELECTRICAL CONTRACTORS CORP

4885 PARK RIDGE BLVD

BOYNTON BEACH, FL 33426

Tel# 561-732-3434
Fax# 561-732-3414

SHIP TO

COMMUNITY CENTER
PARKS & RECREATION
2195 SE AIROSO BLVD
PORT ST LUCIE, FL
34984-5099

Requisition
677

DATE ORDERED	VENDOR NUMBER	DATE REQUIRED	FREIGHT METHOD/TERMS	DEPARTMENT/LOCATION
03/24/10	196850	05/15/10	FOB Destination	PARKS & RECREATION

VENDOR NOTES

*****City contract #20070011/2011
Pricing per Palm Beach County
School District #06c-41J-2/21/06
2/18/2011.

This is an "Not to Exceed" price order
for each park location. Repair
sports lighting at various park
locations. Davco to furnish all
required equipment, tools, material
labor and supervision.
Change order 8/5/10
Increasing amount of po to cover deficits
in 4 limne items
When DAVCO repaired light outages at the
various parks more lights had gone out in
the interim so addtl repaires were needed

LN	DESCRIPTION	QTY	UOM	UNIT PRICE	NET PRICE
001	Sportsman's Park West- repair field lighting- 220 NW Irving Street, PSL, FL	1.00	Each	8430.000	8,430.00

002	Swan Park repair sports lighting- 700 SW Carmelite, PSL, FL	1.00 Each	2457.750	2,457.75
003	McChesney Park repair sports lighting- 1585 SW Cashmere Blvd., PSL, FL	1.00 Each	4674.660	4,674.66
004	Whispering Pines Park reapir sports lighting, 800 SW Darwin Blvd. PSL, FL	1.00 Each	7821.000	7,821.00
005	Sandhill Crane Park repair sports lighting, 2355 SE Scenic Park Drive, PSL, FL	1.00 Each	6860.660	6,860.66
006	Sportsman's Park repair sports field lighting, 201 NW Prima Vista Blvd., PSL, FL	1.00 Each	1573.500	1,573.50

PO TOTAL 31,817.57

** **END** OF REPORT - Generated by Gina Jolly

From: Paul Johnson [PJohnson@cityofpsl.com]
Sent: Wednesday, April 25, 2012 4:09 PM
To: Hartman, Robert
Cc: Prades, Bueno; Denise Burton
Subject: RE: Ped Deco Induction retrofits

Attachments: sharp_cityofpsl_com_20120425_163613.pdf
Rob,

1. It was our understanding that the City Manager gave direction that all pedestrian decorative fixtures were to be included in an analysis conducted by Honeywell. We have attached a list of those facilities that include voltage requirements, wattages, type and location.

   Traffic Operations preliminary evaluation of the mockup and discussions with the City Managers Office revealed that the Crosstown Parkway pedestrian decorative fixtures may be a good candidate for retrofit. However, the actual wattage of the kit selected is still under evaluation. If you are under time constraints, your analysis may want to include both the 100W and 85W.

   Please be advised that any additional corridors will need to be evaluated individually prior to us being able to comment on installation, the lighting quality, and any recommendations.

2. Voltages are included in attachment.

3. Yes, the photo cells are located in the load center.

4. To answer your question on maintenance of existing facilities.

   a. 150W HPS ballast $41.00, bulb $9.75
   b. 250W MH ballast $44.00, bulb $10.20
   c. $160(hourly cost includes bucket truck, labor, etc) multiplied by .25 (15minutes)

We understand that you are in contact with Signal Group. Signal Group is very familiar with our facilities and may be better equipped to answer some of your questions. They may have specific model numbers and/or cut sheets.

Please contact me if you have any questions or require additional information. Thank you.

Paul Johnson
Manager, Traffic Operations

City of Port St. Lucie Engineering
772-871-5182
pjohnson@cityofpsl.com

From: Hartman, Robert [mailto:Robert.Hartman@Honeywell.com]
Sent: Monday, April 23, 2012 1:59 PM
To: Paul Johnson
Subject: Ped Deco Induction retrofits

Paul,

I just wanted to follow up on my voicemail from earlier and ask a couple more questions:

1. Do you have a list of the streets/corridors we are including in the scope?
2. Do you know what the voltage (120 or 240) the existing fixtures are?
3. Are the existing fixtures controlled by photocells?...If not, how are they controlled?

I'm thinking maybe we could set up a phone call with you, myself, our PM and the Signal group. We're trying to nail down some of these details so we can get an accurate price for the install.

Robert J. Hartman III, PE, CEM, LEED AP | Performance Contract Engineer | **Honeywell** Building Solutions | South Region

510 Druid Hills Road, Tampa, FL 33617 | **E-mail:** robert.hartman@honeywell.com
Office: (813) 442-6859 **Mobile:** (813) 220-7179

Building Envelope Improvements
Scope of Work Drawings