

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015

IECC 2012 - Total Building Performance Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.
- The compliance report must include the full input report generated by the software as contiguous part of the compliance report.
- Boxes appropriately checked in the Mandatory Section of the compliance report.

PROJECT SUMMARY

Short Desc: Summer Bay

Description: Summer Bay Bldg. II

Owner:

Address1:

City:

Address2:

State: Florida

Zip: 0

Type: Multi-Family

Class: New Finished building

Jurisdiction: LAKE COUNTY, LAKE COUNTY, FL (451000)

Conditioned Area: 51321 SF

Conditioned & UnConditioned Area: 51321 SF

No of Stories: 4

Area entered from Plans 192502 SF

Permit No: 0

Max Tonnage 2.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	18,444.0	24,659.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			No Entry
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			PASSES
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

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

Prepared By: Adam Barney

Building Official: _____

Date: 12-20-17

Date: _____

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

Owner Agent: _____

Date: _____

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

Architect: Fugleberg Koch

Reg No: BR569

Electrical Designer: Blake Suddeth

Reg No: 69060

Lighting Designer: Blake Suddeth

Reg No: 69060

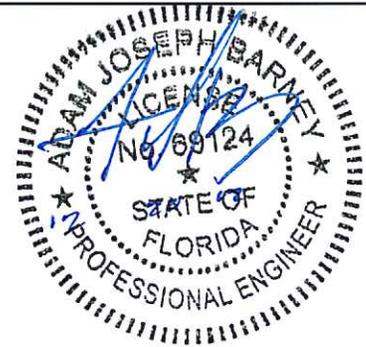
Mechanical Designer: Adam Barney

Reg No: 69024

Plumbing Designer: Adam Barney

Reg No: 69024

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.



Project: Summer Bay
 Title: Summer Bay Bldg. II
 Type: Multi-Family
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>1,259.00</i>	<i>1,992.30</i>
	<i>\$18,444</i>	<i>\$29,011</i>
ELECTRICITY(MBtu/kWh/\$)	1,259.00 368886 <i>\$18,444</i>	1,992.30 583719 <i>\$29,011</i>
AREA LIGHTS	290.10 84998 <i>\$4,250</i>	400.50 117336 <i>\$5,832</i>
MISC EQUIPMT	272.10 79726 <i>\$3,986</i>	272.10 79726 <i>\$3,962</i>
PUMPS & MISC	0.60 175 <i>\$9</i>	0.20 51 <i>\$3</i>
SPACE COOL	343.90 100753 <i>\$5,038</i>	806.10 236189 <i>\$11,739</i>
SPACE HEAT	0.00 0 <i>\$0</i>	113.00 33095 <i>\$1,645</i>
VENT FANS	352.30 103234 <i>\$5,162</i>	400.40 117322 <i>\$5,831</i>

Credits Applied: None

PASSES

Passing Criteria = 24659

Design (including any credits) = 18444

Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 63.6%

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
<div style="border: 1px solid black; display: inline-block; padding: 5px 20px;">None</div>						

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Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
Unit A1	16,001	Private Living Space	732	56	8	PASSES
Unit A1S	16,001	Private Living Space	810	63	9	PASSES
Unit B1	16,001	Private Living Space	1,326	112	16	PASSES
Unit B2	16,001	Private Living Space	1,017	28	4	PASSES
Unit B2S	16,001	Private Living Space	1,095	18	3	PASSES
Unit C1	16,001	Private Living Space	1,320	32	4	PASSES
Bldg 1 Corridor	5	Corridor	1,287	1	1	PASSES
Bldg 1 Corridor	5	Corridor	1,013	1	1	PASSES
Bldg 1 Corridor	5	Corridor	1,013	1	1	PASSES
Bldg 1 Corridor	5	Corridor	1,013	1	1	PASSES
<div style="border: 1px solid black; display: inline-block; padding: 5px 20px;">PASSES</div>						

Air Handling System -Supply	Air Handler (Supply) - Constant Volume	800	0.80	0.82				PASSES	
AHU-2	Unit B3	Constant Volume Air Cooled Split System < 65000 Btu/hr					No. of Units	2	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance		
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	24000	14.00	13.00	11.60		PASSES		
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	800	0.80	0.82			PASSES		
AHU-3	Unit C1	Constant Volume Air Cooled Split System < 65000 Btu/hr					No. of Units	36	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance		
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	28000	14.00	13.00	11.60		PASSES		
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1000	0.80	0.82			PASSES		
AHU-1.1	Corridor	Constant Volume Air Cooled Split System < 65000 Btu/hr					No. of Units	1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance		
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	30000	14.00	13.00	11.60		PASSES		
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1000	0.80	0.82			PASSES		
AHU-1.2	Corridor	Constant Volume Air Cooled Split System < 65000 Btu/hr					No. of Units	1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance		
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	24000	14.00	13.00	11.60		PASSES		
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	800	0.80	0.82			PASSES		

AHU-1.3		Corridor		Constant Volume Air Cooled Split System < 65000 Btu/hr			No. of Units	
							1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance	
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	24000	14.00	13.00	11.60		PASSES	
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	800	0.80	0.82			PASSES	
AHU-1.4		Corridor		Constant Volume Air Cooled Split System < 65000 Btu/hr			No. of Units	
							1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance	
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	24000	14.00	13.00	11.60		PASSES	
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	800	0.80	0.82			PASSES	
							PASSES	

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

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Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	95.00	0.92			PASSES
PASSES							

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Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
Heating System (Steam, Steam Condensate, & Hot Water)	0.25	False	105.00	0.28	1.00	0.50	PASSES
PASSES							

Mandatory Requirements (as applicable)

Mandatory requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted with permission

Topic	Section	Component	Description	Yes	N/A	Exempt
1. To be checked by Designer or Engineer						
Fenestration	C402.2.7	Envelope	U-factor of opaque doors associated with the building thermal envelope meets requirements.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.1.1	Envelope	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance ≥ 0.55 and thermal emittance ≥ 0.75 , 3-year-aged solar reflectance index ≥ 64.0 , initial year solar reflectance ≥ 0.70 and thermal emittance ≥ 0.75 , or initial year solar	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.6	Exterior Lighting	Exterior grounds lighting over 100 W provides >60 lm/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.4	Interior Lighting	Exit signs do not exceed 5 watts per face.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.2.3	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.6	Mechanical	Exhaust air energy recovery on systems meeting Table C403.2.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.3.1,C403.3.1.	Mechanical	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.3.1,C403.4.1	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.1.4	Mechanical	Economizer operation will not increase heating energy use during normal operation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.10.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.10.2	Mechanical	HVAC fan motors not larger than allowable limits.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.2	Mechanical	Service water heating equipment meets efficiency requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.3	Mechanical	Centrifugal fan open-circuit cooling towers having combined rated capacity ≥ 1100 gpm meets minimum efficiency requirement: ≥ 38.2 gpm/hp.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. To be checked by Plan Reviewer						
Air Leakage	C402.4.7	Envelope	Vestibules are installed on all building entrances. Doors have self-closing devices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.6	Envelope	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or ≥ 10 inches of soil.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C103.2	Envelope	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Review	C103.2	Exterior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.6.2	Exterior Lighting	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C103.2	Interior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.5.1	Mechanical	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.3	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.5	Mechanical	Zone controls can limit simultaneous heating and cooling and sequence heating and cooling to each zone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3.2	Mechanical	Two-pipe hydronic systems using a common distribution system have controls to allow a deadband ≥ 15 °F, allow operation in one mode for at least 4 hrs before changeover, and have reset controls to limit heating and cooling supply temperature to ≤ 30 °F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3.3.1	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2	Mechanical	VAV fan motors ≥ 7.5 hp to be driven by variable speed drive, have a vane-axial fan with variable pitch blades, or have controls to limit fan motor demand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2.1	Mechanical	VAV fans have static pressure sensors positioned so setpoint $\leq 1/3$ total design pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2.2	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.5.4	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3.4	Mechanical	Hydronic systems greater than 300,000 Btu/h designed for variable fluid flow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SYSTEM_SPECIFIC	C403.4.3.4	Mechanical	Temperature reset by representative building loads in pumping systems for chiller and boiler systems >300,000 Btu/h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.4	Mechanical	Fan systems with motors >=7.5 hp associated with heat rejection equipment to have capability to operate at 2/3 of full-speed and auto speed controls to control the leaving fluid temperature or condensing temp/pressure of heat rejection device.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C406	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Review	C402.3.2.2	Envelope	Skylights in office, storage, automotive service, manufacturing, non-refrigerated warehouse, retail store, and distribution/sorting area have a measured haze value > 90 percent unless designed to exclude direct sunlight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To be checked by Inspector

Air Leakage	C402.4.1,C402.4.2	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.4.3,C402.4.4	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.4.1.1	Envelope	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.4.6	Envelope	Weatherseals installed on all loading dock cargo doors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.4.8	Envelope	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fenestration	C303.1.3	Envelope	Fenestration products rated in accordance with NFRC.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fenestration	C303.1.3	Envelope	Fenestration products are certified as to performance labels or certificates provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C403.2.7,C408.2.8,(Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.4.2.1	Envelope	Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.1	Envelope	Skylight curbs are insulated to the level of roofs with insulation above deck or R-5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2	Envelope	Floor insulation installed per manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.1	Envelope	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C303.2.1	Envelope	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Insulation	C402.2.1	Envelope	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.4	Exterior Lighting	Automatic lighting controls for exterior lighting installed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.2.1	Interior Lighting	Automatic controls to shut off all building lighting installed in all buildings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.1.1	Interior Lighting	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.1.2	Interior Lighting	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.2.3	Interior Lighting	Daylight zones provided with individual controls that control the lights independent of general area lighting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.3	Interior Lighting	Sleeping units have at least one master switch at the main entry door that controls wired luminaires and switched receptacles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.2.2	Interior Lighting	Occupancy sensors installed in required spaces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.2.3	Interior Lighting	Primary sidelighted areas are equipped with required lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.2.3	Interior Lighting	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.2.3	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	C405.3	Interior Lighting	Fluorescent luminaires within odd numbered lamp configurations that are with 10 feet center to center (if recess mounted) or are within 1 foot edge to edge (if pendant or surface mounted) shall be tandem wired.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wattage	C405.5.2	Interior Lighting	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.5	Mechanical	Freeze protection and snow/ice melting system sensors for future connection to controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.3	Mechanical	HVAC equipment efficiency verified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.4.5.1	Envelope	Stair and elevator shaft vents have motorized dampers that automatically close.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Leakage	C402.4.5.2	Envelope	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.8.1	Mechanical	Piping Insulation exposed to weather is protected from damage (due to sun, moisture, wind, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.7	Mechanical	HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.8	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation \geq R-3.5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.7	Mechanical	Ducts and plenums sealed based on static pressure and location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.11	Mechanical	Unenclosed spaces that are heated use only radiant heat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.2	Mechanical	Thermostatic controls have a 5 °F deadband.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC	C403.2.4.2	Mechanical	Temperature controls have setpoint overlap restrictions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HVAC	C403.2.4.3	Mechanical	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.3	Mechanical	Temperature controls installed on service water heating systems (110 °F for dwelling units and lavatories in public restrooms and 90 °F for other occupancies.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.4	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.2	Mechanical	Heat traps installed on non-circulating storage water tanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.3	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only as per Footnote b to Table C403.2.3(3).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.2	Mechanical	VAV fan >= 7.5 hp are driven by mechanical or electrical variable speed drive, or driven by vane-axial with variable speed blades, or operate with motor demand <=30% design kW at 50% design flow - calculations required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.8	Mechanical	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.7.1.3	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3.5	Mechanical	Reduce flow in pumping systems >10 hp to multiple chillers or boilers when others are shut down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.3.3.3	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.6	Mechanical	Condenser heat recovery system that can heat water to 85 °F or provide 60% of peak heat rejection is installed for preheating of service hot water in 24/7 facility, water cooled systems reject >6 MMBtu, SHW load >=1 MMBtu.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.4.7	Mechanical	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.2	Mechanical	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.3.3	Mechanical	Systems include optimum start controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C403.2.4.1.1	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.3	Mechanical	Public lavatory faucet water temperature <=110°F.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.5	Mechanical	All piping in circulating system insulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.5	Mechanical	First 8 ft of outlet piping is insulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.5	Mechanical	All heat traced or externally heated piping insulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.6	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.7.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.7.3	Mechanical	Vapor retardant pool covers are provided for heated pools and permanently installed spas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM_SPECIFIC	C404.7.2	Mechanical	Time switches are installed on all pool heaters and pumps.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Testing	C408.2.3.2	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mandatory Additional	C406	Project	Efficient HVAC performance, efficient lighting system, or on-site supply of renewable energy consistent with what is shown the approved plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulation	C402.2.8	Project	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy						
Post Construction	C408.3	Exterior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.1	Interior Lighting	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C303.3,C408.2.5.2	Interior Lighting	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.3	Interior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C303.3,C408.2.5.2	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.1	Mechanical	Commissioning plan developed by registered design professional or approved agency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.4	Mechanical	Preliminary commissioning report completed and certified by registered design professional or approved agency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.5.4	Mechanical	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.3.1	Mechanical	HVAC equipment has been tested to ensure proper operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post Construction	C408.2.3.3	Mechanical	Economizers have been tested to ensure proper operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Input Data Report

Project Information

Project Name: Summer Bay

Project Title: Summer Bay Bldg. II

Address:

State: Florida

Zip: 0

Owner:

Building Type: Multi-Family

Building Classification: New Finished building

No. of Stories: 4

GrossArea (SF): 51,321

Bldg. Rotation: None

Zones

No	Acronym	Description	Type	Area [sf]	Multi	Total Area [sf]	
1	Unit A1	Zone 1	CONDITIONED	5856.0	1	5856.0	<input type="checkbox"/>
2	Unit A1S	Zone 2	CONDITIONED	7290.0	1	7290.0	<input type="checkbox"/>
3	Unit B1	Zone 4	CONDITIONED	21216.0	1	21216.0	<input type="checkbox"/>
4	Unit B2	Zone 5	CONDITIONED	4068.0	1	4068.0	<input type="checkbox"/>
5	Unit B2S	Zone 6	CONDITIONED	3285.0	1	3285.0	<input type="checkbox"/>
6	Unit C1	Zone 7	CONDITIONED	5280.0	1	5280.0	<input type="checkbox"/>
7	Bldg 1 Corridor	Bldg 1 1st Floor Corridor	CONDITIONED	1287.0	1	1287.0	<input type="checkbox"/>
8	Bldg 1 Corridor	Bldg 1 2nd Floor Corridor	CONDITIONED	1013.0	1	1013.0	<input type="checkbox"/>
9	Bldg 1 Corridor	Bldg 1 3rd Floor Corridor	CONDITIONED	1013.0	1	1013.0	<input type="checkbox"/>
10	Bldg 1 Corridor	Bldg 1 4th Floor Corridor	CONDITIONED	1013.0	1	1013.0	<input type="checkbox"/>

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Mult	Total Area [sf]	Total Vol[cf]	
In Zone: Unit A1										
1	Unit A1	Unit A1	Private Living Space	1.00	732.00	8.00	8	5856.0	46848.0	<input type="checkbox"/>
In Zone: Unit A1S										
1	Unit A1S	Unit A1S	Private Living Space	1.00	810.00	8.00	9	7290.0	58320.0	<input type="checkbox"/>
In Zone: Unit B1										
1	Unit B1	Unit B1	Private Living Space	1.00	1326.00	8.00	16	21216.0	169728.0	<input type="checkbox"/>
In Zone: Unit B2										
1	Unit B2	Unit B2	Private Living Space	1.00	1017.00	8.00	4	4068.0	32544.0	<input type="checkbox"/>
In Zone: Unit B2S										
1	Unit B2S	Unit B2S	Private Living Space	1.00	1095.00	8.00	3	3285.0	26280.0	<input type="checkbox"/>
In Zone: Unit C1										
1	Unit C1	Unit C1	Private Living Space	1.00	1320.00	8.00	4	5280.0	42240.0	<input type="checkbox"/>
In Zone: Bldg 1 Corridor										
1	Bldg 1 Corrido	Bldg 1 1st Floor Corridor	Corridor	1.00	1287.00	8.00	1	1287.0	10296.0	<input type="checkbox"/>
In Zone: Bldg 1 Corridor										
1	Bldg 1 Corrido	Bldg 1 2nd Floor Corridor	Corridor	1.00	1013.00	8.00	1	1013.0	8104.0	<input type="checkbox"/>
In Zone: Bldg 1 Corridor										
1	Bldg 1 Corrido	Bldg 1 3rd Floor Corridor	Corridor	1.00	1013.00	8.00	1	1013.0	8104.0	<input type="checkbox"/>
In Zone: Bldg 1 Corridor										
1	Bldg 1 Corrido	Bldg 1 4th Floor Corridor	Corridor	1.00	1013.00	8.00	1	1013.0	8104.0	<input type="checkbox"/>

Lighting

No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No. of Ctrl pts	
In Zone: Unit A1								
In Space: Unit A1								
1	Compact Fluorescent	General Lighting	1	13	13	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	2	86	172	Manual On/Off	1	<input type="checkbox"/>
3	Recessed Fluorescent - No vent	General Lighting	4	32	128	Manual On/Off	1	<input type="checkbox"/>
4	Compact Fluorescent	General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
5	Compact Fluorescent	General Lighting	7	36	252	Manual On/Off	1	<input type="checkbox"/>
6	Compact Fluorescent	General Lighting	3	23	69	Manual On/Off	1	<input type="checkbox"/>
7	LED	General Lighting	1	16	16	Manual On/Off	1	<input type="checkbox"/>
In Zone: Unit A1S								
In Space: Unit A1S								
1	Recessed Fluorescent - No vent	General Lighting	4	32	128	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
3	Compact Fluorescent	General Lighting	16	18	288	Manual On/Off	1	<input type="checkbox"/>
4	Compact Fluorescent	General Lighting	3	23	69	Manual On/Off	1	<input type="checkbox"/>
5	Compact Fluorescent	General Lighting	6	13	78	Manual On/Off	1	<input type="checkbox"/>
6	LED	General Lighting	1	16	16	Manual On/Off	1	<input type="checkbox"/>
7	Compact Fluorescent	General Lighting	1	13	13	Manual On/Off	1	<input type="checkbox"/>
In Zone: Unit B1								
In Space: Unit B1								
1	Recessed Fluorescent - No vent	General Lighting	4	32	128	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
3	Compact Fluorescent	General Lighting	9	18	162	Manual On/Off	1	<input type="checkbox"/>
4	Compact Fluorescent	General Lighting	6	23	138	Manual On/Off	1	<input type="checkbox"/>
5	Compact Fluorescent	General Lighting	3	13	39	Manual On/Off	1	<input type="checkbox"/>
6	LED	General Lighting	2	16	32	Manual On/Off	1	<input type="checkbox"/>
7	Compact Fluorescent	General Lighting	1	13	13	Manual On/Off	1	<input type="checkbox"/>
In Zone: Unit B2								
In Space: Unit B2								
1	Recessed Fluorescent - No vent	General Lighting	2	32	64	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
3	Compact Fluorescent	General Lighting	6	18	108	Manual On/Off	1	<input type="checkbox"/>
4	Compact Fluorescent	General Lighting	6	23	138	Manual On/Off	1	<input type="checkbox"/>

5	Compact Fluorescent	General Lighting	3	13	39	Manual On/Off	1	<input type="checkbox"/>
6	LED	General Lighting	2	16	32	Manual On/Off	1	<input type="checkbox"/>
7	Compact Fluorescent	General Lighting	1	13	13	Manual On/Off	1	<input type="checkbox"/>
In Zone: Unit B2S								
In Space: Unit B2S								
1	Recessed Fluorescent - No vent	General Lighting	4	32	128	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
3	Compact Fluorescent	General Lighting	10	18	180	Manual On/Off	1	<input type="checkbox"/>
4	Compact Fluorescent	General Lighting	6	23	138	Manual On/Off	1	<input type="checkbox"/>
5	Compact Fluorescent	General Lighting	3	13	39	Manual On/Off	1	<input type="checkbox"/>
6	LED	General Lighting	1	16	16	Manual On/Off	1	<input type="checkbox"/>
In Zone: Unit C1								
In Space: Unit C1								
1	Recessed Fluorescent - No vent	General Lighting	2	32	64	Manual On/Off	1	<input type="checkbox"/>
2	Compact Fluorescent	General Lighting	2	13	26	Manual On/Off	1	<input type="checkbox"/>
3	Compact Fluorescent	General Lighting	1	13	13	Manual On/Off	1	<input type="checkbox"/>
4	Compact Fluorescent	General Lighting	12	18	216	Manual On/Off	1	<input type="checkbox"/>
5	Compact Fluorescent	General Lighting	6	23	138	Manual On/Off	1	<input type="checkbox"/>
6	Compact Fluorescent	General Lighting	3	13	39	Manual On/Off	1	<input type="checkbox"/>
7	LED	General Lighting	2	16	32	Manual On/Off	1	<input type="checkbox"/>
8	Compact Fluorescent	General Lighting	1	13	13	Manual On/Off	1	<input type="checkbox"/>
In Zone: Bldg 1 Corridor								
In Space: Bldg 1 Corridor								
1	LED	General Lighting	13	17	221	Manual On/Off	1	<input type="checkbox"/>
In Zone: Bldg 1 Corridor								
In Space: Bldg 1 Corridor								
1	LED	General Lighting	14	17	238	Manual On/Off	1	<input type="checkbox"/>
In Zone: Bldg 1 Corridor								
In Space: Bldg 1 Corridor								
1	LED	General Lighting	14	17	238	Manual On/Off	1	<input type="checkbox"/>
In Zone: Bldg 1 Corridor								
In Space: Bldg 1 Corridor								
1	LED	General Lighting	14	17	238	Manual On/Off	1	<input type="checkbox"/>

Walls (Walls will be rotated clockwise by building rotation value)

No	Description	Type	Width [ft]	H (Effec) [ft]	Multiplier	Area [sf]	Orient ation	Cond- uctance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]
In Zone: Unit A1											
1	North Wall	Exterior Wall Wood Framed	24.33	8.00	1	194.6	North	0.0486		20.6	<input type="checkbox"/>
2	South Wall	Exterior Wall Wood Framed	24.33	8.00	1	194.6	South	0.0486		20.6	<input type="checkbox"/>
3	East Wall	Exterior Wall Wood Framed	7.44	8.00	1	59.5	East	0.0486		20.6	<input type="checkbox"/>
In Zone: Unit A1S											
1	North Wall	Exterior Wall Wood Framed	24.33	8.00	1	194.6	North	0.0486		20.6	<input type="checkbox"/>
2	East Wall	Exterior Wall Wood Framed	7.00	8.00	1	56.0	East	0.0486		20.6	<input type="checkbox"/>
3	South Wall	Exterior Wall Wood Framed	24.33	8.00	1	194.6	South	0.0486		20.6	<input type="checkbox"/>
In Zone: Unit B1											
1	North Wall	Exterior Wall Wood Framed	36.75	8.00	1	294.0	North	0.0486		20.6	<input type="checkbox"/>
2	Southwest Wall	Exterior Wall Wood Framed	4.00	8.00	1	32.0	South West	0.0486		20.6	<input type="checkbox"/>
3	East Wall	Exterior Wall Wood Framed	36.50	8.00	1	292.0	East	0.0486		20.6	<input type="checkbox"/>
In Zone: Unit B2											
1	North Wall	Exterior Wall Wood Framed	35.66	8.00	1	285.3	North	0.0486		20.6	<input type="checkbox"/>
2	South Wall	Exterior Wall Wood Framed	35.66	8.00	1	285.3	South	0.0486		20.6	<input type="checkbox"/>
3	East Wall	Exterior Wall Wood Framed	7.00	8.00	1	56.0	East	0.0486		20.6	<input type="checkbox"/>
In Zone: Unit B2S											
1	North Wall	Exterior Wall Wood Framed	35.66	8.00	1	285.3	North	0.0486		20.6	<input type="checkbox"/>
2	South Wall	Exterior Wall Wood Framed	35.66	8.00	1	285.3	South	0.0486		20.6	<input type="checkbox"/>
3	East Wall	Exterior Wall Wood Framed	7.00	8.00	1	56.0	East	0.0486		20.6	<input type="checkbox"/>
In Zone: Unit C1											
1	North Wall	Exterior Wall Wood Framed	48.00	8.00	1	384.0	North	0.0486		20.6	<input type="checkbox"/>
2	South Wall	Exterior Wall Wood Framed	48.00	8.00	1	384.0	South	0.0486		20.6	<input type="checkbox"/>
3	West Wall	Exterior Wall Wood Framed	7.00	8.00	1	56.0	West	0.0486		20.6	<input type="checkbox"/>

Windows (Windows will be rotated clockwise by building rotation value)

No	Description	Orientation	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]	
In Zone: Unit A1											
In Wall: North Wall											
1	Window A	North	No	0.2600	0.22	0.39	3.00	5.00	2	30.0	<input type="checkbox"/>
2	Window B	North	No	0.2600	0.22	0.39	2.50	5.00	2	25.0	<input type="checkbox"/>
In Zone: Unit A1S											
In Wall: East Wall											
2	Window A	East	No	0.2600	0.22	0.39	3.00	5.00	1	15.0	<input type="checkbox"/>
In Wall: North Wall											
1	Window A	North	No	0.2600	0.22	0.39	3.00	5.00	2	30.0	<input type="checkbox"/>
2	Window B	North	No	0.2600	0.22	0.39	2.50	5.00	3	37.5	<input type="checkbox"/>
In Zone: Unit B1											
In Wall: East Wall											
1	Window A	East	No	0.2600	0.22	0.39	3.00	5.00	2	30.0	<input type="checkbox"/>
2	Window B	East	No	0.2600	0.22	0.39	2.50	5.00	6	75.0	<input type="checkbox"/>
In Wall: North Wall											
1	Window A	North	No	0.2600	0.22	0.39	3.00	5.00	2	30.0	<input type="checkbox"/>
2	Window B	North	No	0.2600	0.22	0.39	2.50	5.00	2	25.0	<input type="checkbox"/>
In Zone: Unit B2											
In Wall: North Wall											
1	Window A	North	No	0.2600	0.22	0.39	3.00	5.00	4	60.0	<input type="checkbox"/>
2	Window B	North	No	0.2600	0.22	0.39	2.50	5.00	2	25.0	<input type="checkbox"/>
In Zone: Unit B2S											
In Wall: East Wall											
1	Window A	East	No	0.2600	0.22	0.39	3.00	5.00	1	15.0	<input type="checkbox"/>
In Wall: North Wall											
2	Window A	North	No	0.2600	0.22	0.39	3.00	5.00	1	15.0	<input type="checkbox"/>
3	Window B	North	No	0.2600	0.22	0.39	2.50	5.00	2	25.0	<input type="checkbox"/>
In Zone: Unit C1											
In Wall: South Wall											
2	Window A	South	No	0.2600	0.22	0.39	3.00	5.00	6	90.0	<input type="checkbox"/>
3	Window B	South	No	0.2600	0.22	0.39	2.50	5.00	2	25.0	<input type="checkbox"/>

Doors

No	Description	Type	Shade?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/h.sf.F]	Dens. [lb/cf]	Ht Cap. [Btu/sf. F]	R [h.sf.F/ Btu]	
In Zone: Unit A1												
In Wall: North Wall												
1	Balcony Door	Balcony Door	No	3.00	6.66	1	20.0	0.3333	0.00	0.00	3.00	<input type="checkbox"/>
In Wall: South Wall												
1	Door	Solid core flush (2.25)	No	3.00	6.66	1	20.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Unit A1S												
In Wall: South Wall												
1	Door	Solid core flush (2.25)	No	3.00	6.66	1	20.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Unit B1												
In Wall: North Wall												
1	Balcony Door	Balcony Door	No	3.00	6.66	1	20.0	0.3333	0.00	0.00	3.00	<input type="checkbox"/>
In Wall: Southwest Wall												
1	Door	Solid core flush (2.25)	No	3.00	6.66	1	20.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Unit B2												
In Wall: North Wall												
1	Balcony Door	Balcony Door	No	3.00	6.66	1	20.0	0.3333	0.00	0.00	3.00	<input type="checkbox"/>
In Wall: South Wall												
1	Door	Solid core flush (2.25)	No	3.00	6.66	1	20.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Unit B2S												
In Wall: South Wall												
1	Door	Solid core flush (2.25)	No	3.00	6.66	1	20.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Zone: Unit C1												
In Wall: North Wall												
1	Door	Solid core flush (2.25)	No	3.00	6.66	1	20.0	0.3504	0.00	0.00	2.85	<input type="checkbox"/>
In Wall: South Wall												
1	Balcony Door	Balcony Door	No	3.00	6.66	1	20.0	0.3333	0.00	0.00	3.00	<input type="checkbox"/>

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multiplier	Area [sf]	Tilt [deg]	Cond. [Btu/h.Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: Unit A1												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	732.00	1.00	1	732.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>
In Zone: Unit A1S												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	810.00	1.00	1	810.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>
In Zone: Unit B1												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	1326.00	1.00	1	1326.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>
In Zone: Unit B2												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	1017.00	1.00	1	1017.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>
In Zone: Unit B2S												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	1095.00	1.00	1	1095.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>
In Zone: Unit C1												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	1320.00	1.00	1	1320.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>
In Zone: Bldg 1 Corridor												
1	Roof	Sngl Ply/2" Iso/2" Conc/Mtl Deck	1013.00	1.00	1	1013.0	0.00	0.1372	4.74	71.00	7.3	<input type="checkbox"/>

Skylights

No	Description	Type	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multiplier	Area [Sf]	Total Area [Sf]	
In Zone:											
In Roof:											
											<input type="checkbox"/>

Floors

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/h.sf.F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: Unit A1											
1	Floor	Wood Truss Floor	732.00	1.00	1	732.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Unit A1S											
1	Floor	Wood Truss Floor	810.00	1.00	1	810.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Unit B1											
1	Floor	Wood Truss Floor	1326.00	1.00	1	1326.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Unit B2											
1	Floor	Wood Truss Floor	1017.00	1.00	1	1017.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Unit B2S											
1	Floor	Wood Truss Floor	1095.00	1.00	1	1095.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Unit C1											
1	Floor	Wood Truss Floor	1320.00	1.00	1	1320.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Bldg 1 Corridor											
1	Floor	1 ft. soil, concrete floor, carpet and rubber pad	1287.00	1.00	1	1287.0	0.2681	34.00	113.33	3.73	<input type="checkbox"/>
In Zone: Bldg 1 Corridor											
1	Floor	Wood Truss Floor	1013.00	1.00	1	1013.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Bldg 1 Corridor											
1	Floor	Wood Truss Floor	1013.00	1.00	1	1013.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>
In Zone: Bldg 1 Corridor											
1	Floor	Wood Truss Floor	1013.00	1.00	1	1013.0	0.0445	1.50	11.29	22.47	<input type="checkbox"/>

Systems

AHU-1	Unit A1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 14		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	18000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	600.00	0.80		<input type="checkbox"/>
AHU-1	Unit A2	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 8		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	18000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	600.00	0.80		<input type="checkbox"/>
AHU-2	Unit B1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 42		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	24000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	800.00	0.80		<input type="checkbox"/>
AHU-2	Unit B2	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 6		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	24000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	800.00	0.80		<input type="checkbox"/>
AHU-2	Unit B3	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 2		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	24000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	800.00	0.80		<input type="checkbox"/>
AHU-3	Unit C1	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 36		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	28000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	1000.00	0.80		<input type="checkbox"/>
AHU-1.1	Corridor	Constant Volume Air Cooled Split System < 65000 Btu/hr	No. Of Units 1		
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	30000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	1000.00	0.80		<input type="checkbox"/>

AHU-1.2		Corridor	Constant Volume Air Cooled Split System < 65000 Btu/hr		No. Of Units
					1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	24000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	800.00	0.80		<input type="checkbox"/>
AHU-1.3		Corridor	Constant Volume Air Cooled Split System < 65000 Btu/hr		No. Of Units
					1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	24000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	800.00	0.80		<input type="checkbox"/>
AHU-1.4		Corridor	Constant Volume Air Cooled Split System < 65000 Btu/hr		No. Of Units
					1
Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	24000.00	14.00	11.60	<input type="checkbox"/>
2	Air Handling System -Supply	800.00	0.80		<input type="checkbox"/>

Plant

Equipment	Category	Size	Inst.No&Eff.	IPLV

Water Heaters

W-Heater Description	Capacity	Cap.Unit	I/P Rt.	Efficiency	Loss
1 Electric water heater	40 [Gal]		5 [kW]	95.0000 [Ef]	[Btu/h] <input type="checkbox"/>

Ext-Lighting

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

Piping

No	Type	Operating Temp [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?
1	Heating System (Steam, Steam Condensate, & Hot Water)	105.00	0.28	0.25	1.00	No <input type="checkbox"/>

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT
Apartment Window	User Defined	1	0.2600	0.2200	0.3900

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thick [ft]	Cond-uctivity [Btu/h.ft.F]	Density [lb/cf]	Sp. Heat [Btu/lb.F]	
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000	<input type="checkbox"/>
178	Matl178	CARPET W/RUBBER PAD	Yes	1.2300					<input type="checkbox"/>
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000	<input type="checkbox"/>
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000	<input type="checkbox"/>
23	Matl23	6 in. Insulation	No	20.0000	0.5000	0.0250	5.70	0.2000	<input type="checkbox"/>
279	Matl279	Solid core flush (2.25")	Yes	2.8537					<input type="checkbox"/>
82	Matl82	ASPHALT-SHINGLE AND SIDING	Yes	0.4400					<input type="checkbox"/>
11	Matl11	2 in. Insulation	No	6.6800	0.1670	0.0250	2.00	0.2000	<input type="checkbox"/>
47	Matl47	2 in. Heavyweight concrete	No	0.1670	0.1670	1.0000	140.00	0.2000	<input type="checkbox"/>
245	Matl245	PLYWOOD, 5/8IN	No	0.7894	0.0521	0.0660	34.00	0.2900	<input type="checkbox"/>
1004	ApLbMat1004	Wood French Door with Single Lite	Yes	3.0000					<input type="checkbox"/>
1006	ApLbMat1006	.875 Cement Plaster System	Yes	0.2000					<input type="checkbox"/>
1007	ApLbMat1007	.4275 OSB Wall Sheathing	Yes	0.8200					<input type="checkbox"/>
1014	ApLbMat1014	.625 Gypsum Board	Yes	0.5600					<input type="checkbox"/>
1015	ApLbMat1015	R-19 Batt Insulation	Yes	19.0000					<input type="checkbox"/>

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1043	Sngl Ply/2" Iso/2" Conc/Mtl Deck	No	No	0.14	4.74	71.00	7.3	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		<input type="checkbox"/>
	1	82	ASPHALT-SHINGLE AND SIDING			0.000		<input type="checkbox"/>
	2	11	2 in. Insulation	0.1670		0.000		<input type="checkbox"/>
	3	47	2 in. Heavyweight concrete	0.1670		0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1057	1 ft. soil, concrete floor, carpet and rubber pad	No	No	0.27	34.00	113.33	3.7	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		<input type="checkbox"/>
	1	265	Soil, 1 ft	1.0000		0.000		<input type="checkbox"/>
	2	48	6 in. Heavyweight concrete	0.5000		0.000		<input type="checkbox"/>
	3	178	CARPET W/RUBBER PAD			0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1058	Solid core flush (2.25)	No	Yes	0.35			2.9	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		<input type="checkbox"/>
	1	279	Solid core flush (2.25")			0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	<input type="checkbox"/>
1061	Balcony Door	No	Yes	0.33			3.0	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		<input type="checkbox"/>
	1	1004	Wood French Door with Single Lite			0.000		<input type="checkbox"/>

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1063	Wood Truss Floor	No	No	0.04	1.50	11.29	22.5	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		
	1	178	CARPET W/RUBBER PAD			0.000		<input type="checkbox"/>
	2	245	PLYWOOD, 5/8IN	0.0521		0.000		<input type="checkbox"/>
	3	23	6 in. Insulation	0.5000		0.000		<input type="checkbox"/>
	4	187	GYP OR PLAS BOARD,1/2IN	0.0417		0.000		<input type="checkbox"/>
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1065	Exterior Wall Wood Framed	No	Yes	0.05			20.6	<input type="checkbox"/>
	Layer	Material No.	Material	Thickness [ft]		Framing Factor		
	1	1006	.875 Cement Plaster System			0.000		<input type="checkbox"/>
	2	1007	.4275 OSB Wall Sheathing			0.000		<input type="checkbox"/>
	3	1015	R-19 Batt Insulation			0.000		<input type="checkbox"/>
	4	1014	.625 Gypsum Board			0.000		<input type="checkbox"/>