Check List

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

[X] This Checklist

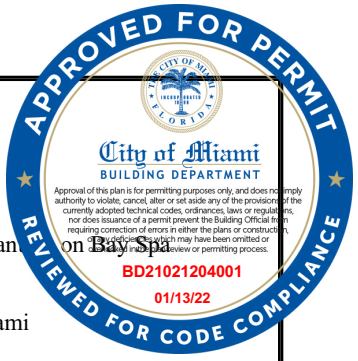
[X] The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.

[X] The compliance report must include the full input report generated by the software as contigous part of the compliance report.

[X] Boxes appropriately checked in the Mandatory Section of the complaince report.

WARNING: INPUT REPORT NOT GENERATED.
To include input report in final submission, go to the Project Form, Settings Tab and check the box - "Append Input Report to Compliance Output Report"
Then rerun your calculation

PROJECT SUMMARY



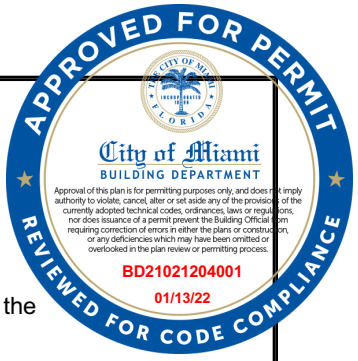
Short Desc:	SPA	**Description:**	Quan on Bay Spa
Owner:			
Address1:	Quantum on the Bay	**City:**	Miami
Address2:	1900 North Bayshore Drive	**State:**	Fl
		Zip:	0
Type:	Healthcare-Clinic	**Class:**	Renovation to existing building
Jurisdiction:	MIAMI BEACH, MIAMI-DADE COUNTY, FL (232500)		
Conditioned Area:	746 SF	**Conditioned & UnConditioned Area:**	746 SF
No of Stories:	1	**Area entered from Plans**	746 SF
Permit No:	0	**Max Tonnage**	2.8
		If different, write in:	_____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in $)	393.0	657.0	**PASSED**
LIGHTING CONTROLS			**PASSES**
EXTERNAL LIGHTING			**No Entry**
HVAC SYSTEM			**PASSES**
PLANT			**No Entry**
WATER HEATING SYSTEMS			**Not Checked**
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: Jose Ramos Digitally signed by Jose Ramos Date: 2021.08.27 18:55:07 -04'00'

Date: _____

Building Official: _____

Date: _____

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

Owner Agent: _____ Date: _____

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

Architect: _____ Reg No: _____

Electrical Designer: _____ Reg No: _____

Lighting Designer: _____ Reg No: _____

Mechanical Designer: _____ Reg No: _____

Plumbing Designer: _____ Reg No: _____

(*) 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: SPA
Title: Quantum on Bay Spa
Type: Healthcare-Clinic
(WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	*25.30*	*42.00*
	$393	*$657*
ELECTRICITY(MBtu/kWh/$)	25.30	42.00
	7434	12330
	$393	*$657*
AREA LIGHTS	0.90	6.50
	276	1919
	$15	*$102*
MISC EQUIPMT	11.20	11.20
	3279	3279
	$173	*$175*
PUMPS & MISC	0.00	0.00
	1	2
	$0	*$0*
SPACE COOL	7.70	12.60
	2267	3684
	$120	*$196*
SPACE HEAT	0.00	0.00
	0	12
	$0	*$1*
VENT FANS	5.50	11.70
	1611	3434
	$85	*$183*

Credits Applied: None
Passing Criteria = 657
Design (including any credits) = 393
Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 59.7%

PASSES

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	PA	LL	Compliance (W)

None

Project: SPA
Title: Quantum on Bay Spa
Type: Healthcare-Clinic
(WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
SPA	10,010	Physical Therapy (Hospital)	746	2	1	**PASSES**

PASSES

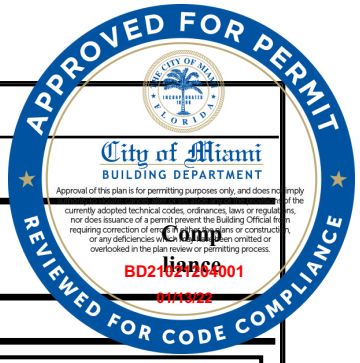
Project: SPA
Title: Quantum on Bay Spa
Type: Healthcare-Clinic
(WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

FC-1 **FC-1** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp-liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	33510	14.00	13.00	8.00		**PASSES**
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	43740	8.20	8.20			**PASSES**
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1200	0.80	0.82			**Not Required**

PASSES



Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance

None

Project: SPA
Title: Quantum on Bay Spa
Type: Healthcare-Clinic
(WEA File: FL_MIAMI_INTL_AP.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Comp liance
Water Heater 1	Electric Storage water heater	Unknown	0.92				**Not Checked**

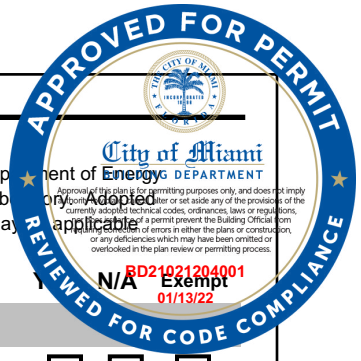
Not Checked

Project: SPA
Title: Quantum on Bay Spa
Type: Healthcare-Clinic
(WEA File: FL_MIAMI_INTL_AP.tm3)

Piping System Compliance

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

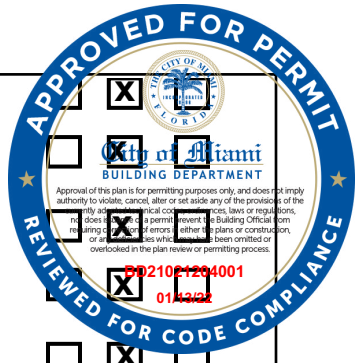
PASSES



Mandatory Requirements (as applicable)

Requirements compiled by US Dep[illegible]ment of Energy and Pacific Northwest National Lab[illegible]ory. Adopted for FBC with permission. Not all may be applicable.

Topic	Section	Component	Description	Y	N/A	Exempt
1. To be checked by Designer or Engineer						
Insulation	5.8.1.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	X		
Insulation	5.8.1.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	X		
Insulation	5.5.3.5	Envelope	Slab edge insulation depth/length.	X		
Insulation	6.4.4.1.5	Envelope	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	X		
SYSTEM_SPECIFIC	6.5.1, 6.5.1.1, 6.5.1.3, 6.5.1.4	Mechanical	Air economizers provided where required (and not exempted), 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.	X		
SYSTEM_SPECIFIC	6.5.1, 6.5.1.2, 6.5.1.2.1, 6.5.1.3	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control. Capable if providing 100% of the expected system cooling load when outdoor air <= 50F.		X	
SYSTEM_SPECIFIC	6.5.1.5	Mechanical	Economizer operation will not increase heating energy use during normal operation.		X	
SYSTEM_SPECIFIC	6.5.2.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.		X	
SYSTEM_SPECIFIC	6.5.2.2.3	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.		X	
SYSTEM_SPECIFIC	6.5.1.6	Mechanical	Water economizer specified on hydronic cooling and humidification systems designed to maintain inside humidity at >35 ºF dewpoint if an economizer is required.		X	
SYSTEM_SPECIFIC	6.5.3.1.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	X		
SYSTEM_SPECIFIC	6.5.3.1.2	Mechanical	HVAC fan motors not larger than the first available motor size greater than the bhp.	X		
HVAC	6.5.6.1	Mechanical	Exhaust air energy recovery on systems meeting Tables 6.5.6.1-1, and 6.5.6.1-2.	X		
SYSTEM_SPECIFIC	7.4.2	Mechanical	Service water heating equipment meets efficiency requirements.	X		
SYSTEM_SPECIFIC	7.5.2	Mechanical	Service water heating equipment used for space heating complies with the service water heating equipment requirements.		X	
Insulation	5.8.1.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	X		
Insulation	5.8.1.2	Envelope	Floor insulation installed per manufacturer's instructions.	X		
Controls	10.4.3	Mechanical	Elevators are designed with the proper lighting, ventilation power, and standby mode.		X	
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7a	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=40.2 gpm/hp .		X	
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7b	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=20.0 gpm/hp.		X	
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7c	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=16.1 gpm/hp.		X	



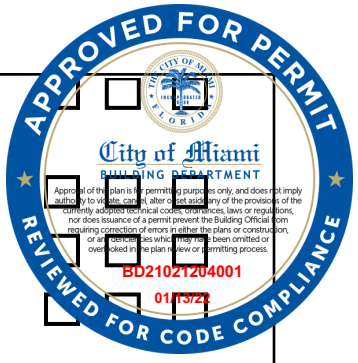
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7d	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=7.0 gpm/hp	☐	☒	☐
SYSTEM_SPECIFIC	6.5.5.3	Mechanical	Centrifugal fan open-circuit cooling towers having combined rated capacity >= 1100 gpm meets minimum efficiency requirement: >=38.2 gpm/hp.	☐	☒	☐
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7e	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=176 kBtu/h-hp	☐	☒	☐
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7f	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=157 kBtu/h-hp w/ R-507A test fluid.	☐	☒	☐
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7g	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=134 kBtu/h-hp w/ Ammonia test fluid..	☐	☒	☐
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7h	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=135 kBtu/h-hp w/ R-507A test fluid.	☐	☒	☐
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7i	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=110 kBtu/h-hp w/ Ammonia test fluid.	☐	☒	☐
SYSTEM_SPECIFIC	7.5.3	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency must be >= 90 Et. Where multiple pieces of water-heating equipment serve the building with combined rating is >= 1,000 kBtu/h, the combined input-capacity-weighted-average thermal efficiency , thermal efficiency must be >= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h.	☐	☒	☐
SYSTEM_SPECIFIC	6.5.3.2.4	Mechanical	Return and relief fans used to meet Section 6.5.1.1.5 have relief air rate controlled to maintain building pressure through differential supply-return airflow tracking. Systems with supply fans allowed to control the relief system based on oudoor air damper position. Fans have variable speed control or other devices for managing total return/relief fan system demand per section threshold.	☐	☒	☐
HVAC	6.5.2.6	Mechanical	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.	☐	☒	☐
HVAC	6.5.4.7	Mechanical	Chilled-water cooling coils provide a 15°F or higher temperature difference between leaving and entering water temperatures and a minimum of 57°F leaving water temperature at design conditions	☐	☒	☐
SYSTEM_SPECIFIC	6.5.3.4	Mechanical	Parallel-flow fan-powered VAV air terminals have automatic controls to a) turn off the terminal fan except when space heating is required or if required for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is activated; and c) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or reverse the terminal damper logic and provide heating from the central air handler through primary air.	☐	☒	☐

SYSTEM_SPECIFIC	6.5.3.7	Mechanical	Required minimum outdoor air rate is the larger of minimum outdoor air rate or minimum exhaust air rate required by Standard 62.1, Standard 170, or applicable codes or accreditation standards. Outdoor air ventilation systems shall comply with one of the following: a) design minimum system outdoor air provided < 135% of the required minimum outdoor air rate, b) dampers, ductwork, and controls allow the system to supply <= the required minimum outdoor air rate with a single set-point adjustment., or c) system includes exhaust air energy recovery complying with Section 6.5.6.1.	☐	☐	☐
HVAC	6.8.1-15, 6.8.1-16	Mechanical	Electrically operated DX-DOAS units meet requirements per Tables 6.8.1-15 or 6.8.1-16.	☐	☒	☐
2. To be checked by Plan Reviewer						
Plan Review	4.2.2, 5.4.3.1.1, 5.7	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.	☐	☐	☐
Plan Review	4.2.2, 6.4.4.2.1, 6.7.2	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.	☐	☐	☐
Plan Review	4.2.2, 7.7.1, 10.4.2	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.	☐	☐	☐
Plan Review	4.2.2, 8.4.1.1, 8.4.1.2, 8.7	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	☐	☐	☐
Plan Review	4.2.2, 9.4.3, 9.7	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.	☐	☐	☐
Plan Review	9.7	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.	☐	☐	☐
Insulation	5.8.1.7.3	Envelope	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.	☐	☐	☐
Air Leakage	5.4.3.4	Envelope	Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart (>= 16 ft apart for adjoinging floor area >= 40000 sq.ft.). Vestibule floor area <=7 50 sq.ft. or 2 percent of the adjoining conditioned floor area.	☐	☐	☐

Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐	☐	☐
Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐	☐	☐
Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐	☐	☐
Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐	☐	☐

Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐	☐	☐
Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐	☐	☐
HVAC	6.4.3.4.4	Mechanical	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.	☐	☐	☐
HVAC	6.4.3.8	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.	☐	☐	☐
HVAC	6.4.4.1.4	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐	☐	☐
HVAC	6.5.2.3	Mechanical	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.3.1.3	Mechanical	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.3.6	Mechanical	Motors for fans >= 1/12 hp and < 1 hp are electronically-commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.10	Mechanical	DDC system installed and capable of and configured to provide control logic including monitoring zone and system demand for fan pressure, pump pressure, heating, and cooling; transferring zone and system demand information from zones to air distribution system controllers and from air distribution systems to heating and cooling plant controllers; automatically detecting and alerting system operator when zones and systems excessively drive the reset logic; allow operator removal of zone(s) from the reset algorithm; AND capable of trending and graphically displaying input and output points.	☐	☐	☐

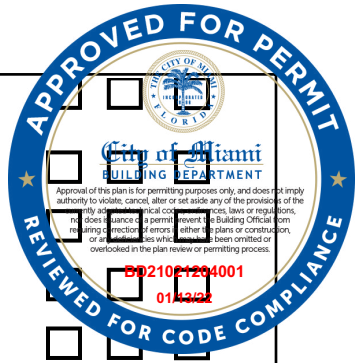
SYSTEM_SPECIFIC	6.5.3.2.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure. Controls provide: zone damper monitoring or indicator of static pressure need; autodetection, alarm, and operator override of zones excessively triggering reset logic.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.3.3	Mechanical	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.3.5	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.4.1	Mechanical	System turndown requirement met through multiple single-input boilers, one or more modulating boilers, or a combination of single-input and modulating boilers. Boiler input between 1.0 MBtu/h and 5 MBtu/h has 3:1 turndown ratio, boiler input between 5.0 MBtu/h and 10 MBtu/h has 4:1 turndown ratio, boiler input > 10.0 MBtu/h has 5:1 turndown ratio.	☐	☐	☐
HVAC	6.5.4.2	Mechanical	HVAC pumping systems with >= 3 control values designed for variable fluid flow (see section details).	☐	☐	☐
SYSTEM_SPECIFIC	6.5.4.3, 6.5.4.3.1, 6.5.4.3.2	Mechanical	Fluid flow shutdown in pumping systems to multiple chillers or boilers when systems are shut down.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.4.4	Mechanical	Temperature reset by representative building loads in pumping systems >10 hp for chiller and boiler systems >300,000 Btu/h.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.4.5.1	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.4.5.2	Mechanical	Hydronic heat pumps and water-cooled unitary air conditioners with pump systems >5 hp have controls or devices to reduce pump motor demand.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.5.2.1	Mechanical	Fan systems with motors or array of motors (inlcuding the motor service factor) with connected power totaling >=5 hp associated with heat rejection equipment to have controls and/or devises that result in fanmotor demand of <= 30% of design wattage at 50% of design airflow and automatically modulates fan speed to control the leaving fluid temperature or condensing temp/pressure of heat rejection device.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.5.2.2	Mechanical	Multicell heat rejection equipment with variable-speed fan drives installed that operate the maximum number of fans allowed that comply with manufacturers specs and control all fans to the same fan speed required for the instantaneous cooling duty.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.7.1	Mechanical	Conditioned supply air to space with mechanical exhaust <= the greater of criteria of supply flow, required ventilation rate, exhaust flow minu the available transffer air (see section details).	☐	☐	☐
HVAC	6.5.7.2.1	Mechanical	Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.7.2.2	Mechanical	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements shown in Table 6.5.7.1.3.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.7.2.3	Mechanical	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements.	☐	☐	☐
HVAC	6.5.7.2	Mechanical	Fume hoods exhaust systems >=5,000 cfm have VAV hood exhaust and supply systems, direct make-up air or heat recovery.	☐	☐	☐
HVAC	6.5.8.1	Mechanical	Unenclosed spaces that are heated use only radiant heat.	☐	☐	☐



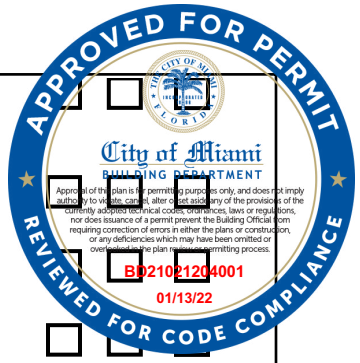
SYSTEM_SPECIFIC	7.5.1	Mechanical	Combined space and water heating system not allowed unless standby loss less than calculated maximum. AHJ has approved or combined connected load <150 kBtu/h.	☐	☐	☐
Other Equipment	10.4.1	Mechanical	Electric motors meet requirements where applicable.	☐	☐	☐
HVAC	6.4.3.3.2	Mechanical	Setback controls allow automatic restart and temporary operation as required for maintenance.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.3.3	Mechanical	Systems with setback controls and DDC include optimum start controls. Optimum start algorithm considers mass radiant slab floor temperature.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.3.4	Mechanical	Zone isolation devices and controls.	☐	☐	☐
Wattage	9.4.2	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.	☐	☐	☐
Controls	9.4.1.4d	Exterior Lighting	Outdoor parking area luminaires >= 78W and <= 24 ft height controlled to reduce wattage by 50% when area unoccupied over 15 minutes. Controlled power limited to <= 1500W.	☐	☐	☐
Controls	9.4.1.2a	Interior Lighting	Parking garage lighting is equipped with automatic shutoff controls per Section 9.4.1.1(i).	☐	☐	☐
Controls	9.4.1.2b	Interior Lighting	Parking garage luminarie power is automatically reduced by >= 30% when zone < 3600 ft2 has no occupancy after 20 minutes.	☐	☐	☐
Controls	9.4.1.2c	Interior Lighting	Parking garage luminaries in or around covered entrances/exits between building and garage automatically reduced by >= 50% from sunset to sunrise.	☐	☐	☐
Controls	9.4.1.2d	Interior Lighting	Parking garage: Power to luminaires <= 20 ft of any perimeter wall that has a net opening-to-wall ratio >=40% and no exterior obstructions within 20 ft, is automatically reduced in response to daylight >= 50%.	☐	☐	☐
Other Equipment	6.8.1-14	Mechanical	Vapor compression based indoor pool dehumidifiers (single package (indoor air/water cooled or w/out air-cooled condenser) or split system indoor air-cooled) have a minimum 3.5 MRE efficiency rating.	☐	☐	☐
Controls	6.4.3.3.5	Mechanical	Hotels/motel w/ > 50 guest rooms have automatic controls for the HVAC equipment serving each room configured per Section 6.4.3.3.5 subsections 1-3.	☐	☐	☐

3. To be checked by Inspector

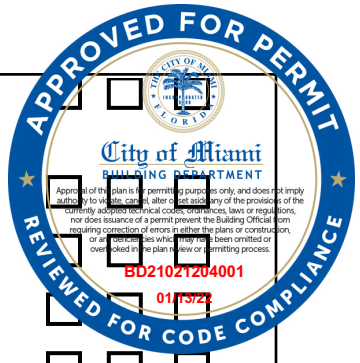
Insulation	5.8.1.7	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐	☐	☐
HVAC	6.4.3.7	Mechanical	Freeze protection and snow/ice melting system sensors for future connection to controls.	☐	☐	☐
Air Leakage	5.4.3.1	Envelope	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces in climate zones 1-6.	☐	☐	☐
Air Leakage	5.4.3.2	Envelope	Factory-built and site-assembled fenestration and doors are labeled or certified as meeting air leakage requirements.	☐	☐	☐
Fenestration	5.8.2.1, 5.8.2.3, 5.8.2.4, 5.8.2.5	Envelope	Fenestration products rated (U-factor, SHGC, and VT) in accordance with NFRC or energy code defaults are used.	☐	☐	☐
Fenestration	5.8.2.2	Envelope	Fenestration and door products are labeled, or a signed and dated certificate listing the U-factor, SHGC, VT, and air leakage rate has been provided by the manufacturer.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.4.1	Mechanical	Temperature controls installed on service water heating systems (<=120ºF to maximum temperature for intended use).	☐	☐	☐



SYSTEM_SPECIFIC	7.4.4.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.6	Mechanical	Heat traps installed on non-circulating storage water tanks.	☐	☐	☐
HVAC	6.4.1.4, 6.4.1.5	Mechanical	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.1.5.2	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only.	☐	☐	☐
HVAC	6.4.3.4.1	Mechanical	Stair and elevator shaft vents have motorized dampers that automatically close.	☐	☐	☐
HVAC	6.4.3.4.2, 6.4.3.4.3	Mechanical	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.	☐	☐	☐
HVAC	6.4.3.4.5	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐	☐	☐
HVAC	6.5.3.2.1	Mechanical	DX cooling systems >= 75 kBtu/h (>= 65 kBtu/h effective 1/2016) and chilled-water and evaporative cooling fan motor hp >= ¼ designed to vary supply fan airflow as a function of load and comply with operational requirements.	☐	☐	☐
HVAC	6.4.4.1.1	Mechanical	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.	☐	☐	☐
HVAC	6.4.4.1.2	Mechanical	HVAC ducts and plenums insulated per Table 6.8.2. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	☐	☐	☐
HVAC	6.4.4.1.3	Mechanical	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	☐	☐	☐
HVAC	6.4.4.2.1	Mechanical	Ducts and plenums having pressure class ratings are Seal Class A construction.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.4.2.2	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.2.1	Mechanical	Zone controls can limit reheating, recooling, simultaneous heating and cooling and sequence heating and cooling to each zone.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.11.1	Mechanical	Electric motor driven chilled-water plants have measurement devices installed and measure the electricity use and efficiency	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.11.2	Mechanical	Electricity use and efficiency are trended every 15 minutes and graphically displayed, including hourly, daily, monthly, and annual data. Data are preserved for 36 months or more.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.2.2.2	Mechanical	Two-pipe hydronic systems using a common distribution system have controls to allow a deadband >=15 ºF, allow operation in one mode for at least 4 hrs before changeover, and have rest controls to limit heating and cooling supply temperature to <=30 ºF.	☐	☐	☐
HVAC	6.5.2.4.1	Mechanical	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to activate when humidification is not required.	☐	☐	☐
HVAC	6.5.2.4.2	Mechanical	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air-handling units insulated >= R-0.5.	☐	☐	☐
HVAC	6.5.2.5	Mechanical	Preheat coils controlled to stop heat output whenever mechanical cooling, including economizer operation, is active.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.3.2.2	Mechanical	VAV fans have static pressure sensors positioned so setpoint <=1.2 in. w.c. design pressure.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.4.6	Mechanical	Chilled-water and condenser water piping sized according to design flow rate and total annual hours of operation (Table 6.5.4.6).	☐	☐	☐



SYSTEM_SPECIFIC	6.5.6.2	Mechanical	Condenser heat recovery system that can heat water to 85 ºF or provide 60% of peak heat rejection is installed for preheating of service hot water.	☐	☐	☐
HVAC	6.5.7.2.4	Mechanical	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.	☐	☐	☐
SYSTEM_SPECIFIC	6.5.9	Mechanical	Hot gas bypass limited to: <=240 kBtu/h – 15% >240 kBtu/h – 10%	☐	☐	☐
HVAC	6.4.3.9	Mechanical	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	☐	☐	☐
Controls	6.5.10	Mechanical	Doors separating conditioned space from the outdoors have controls that disable/reset heating and cooling system when open.	☐	☐	☐
Controls	9.4.1.1 except(g)	Interior Lighting	Automatic control requirements prescribed in Table 9.6.1, for the appropriate space type, are installed. Mandatory lighting controls (labeled as 'REQ') and optional choice controls (labeled as 'ADD1' and 'ADD2') are implemented.	☐	☐	☐
Controls	9.4.1.1 except(g)	Interior Lighting	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐	☐	☐
Controls	9.4.1.1f	Interior Lighting	Daylight areas under skylights and roof monitors that have more than 150 W combined input power for general lighting are controlled by photocontrols.	☐	☐	☐
Controls	9.4.1.4	Exterior Lighting	Automatic lighting controls for exterior lighting installed.	☐	☐	☐
Controls	9.4.1.3	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	☐	☐	☐
Wattage	9.6.2	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐	☐	☐
Wattage	9.6.4	Interior Lighting	Where space LPD requirements are adjusted based on room cavity ratios, dimensions are consistent with approved plans.	☐	☐	☐
Insulation	4.2.4	Envelope	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	☐	☐	☐
Insulation	5.8.1.2, 5.8.1.3	Envelope	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.	☐	☐	☐
Insulation	5.8.1.1	Envelope	Building envelope insulation is labeled with R-value or insulation certificate has been provided listing R-value and other relevant data.	☐	☐	☐
Insulation	5.8.1.9	Envelope	Building envelope insulation extends over the full area of the component at the proposed rated R or U value.	☐	☐	☐
Insulation	5.8.1.4	Envelope	Eaves are baffled to deflect air to above the insulation.	☐	☐	☐
Insulation	5.8.1.5	Envelope	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.	☐	☐	☐
Insulation	5.8.1.6	Envelope	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.	☐	☐	☐
Insulation	5.8.1.7.1	Envelope	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.	☐	☐	☐
Insulation	5.8.1.7.2	Envelope	Foundation vents do not interfere with insulation.	☐	☐	☐

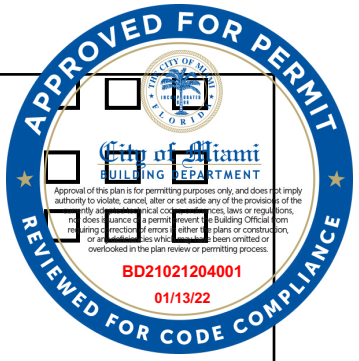


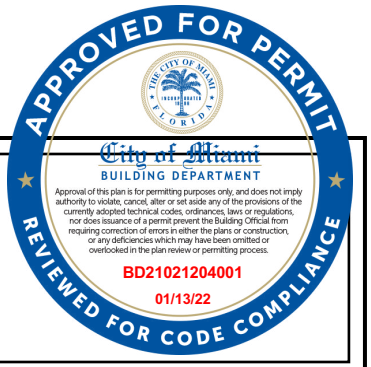
Insulation	5.8.1.8	Envelope	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.1.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control.	☐	☐	☐
HVAC	6.4.3.1.2	Mechanical	Thermostatic controls have a 5 °F deadband.	☐	☐	☐
HVAC	6.4.3.2	Mechanical	Temperature controls have setpoint overlap restrictions.	☐	☐	☐
HVAC	6.4.3.3.1	Mechanical	HVAC systems equipped with at least one automatic shutdown control.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.5	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐	☐	☐
SYSTEM_SPECIFIC	6.4.3.12	Mechanical	Air economizer has a fault detection and diagnostics (FDD) system (see details for configuration and operational requirements).	☐	☐	☐
HVAC	6.4.3.6	Mechanical	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited. Humidity control prohibits the use of fossil fuel or electricity to produce RH > 30% in the warmest zone humidified and RH < 60% in the coldest zone dehumidified.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.4.3	Mechanical	Public lavatory faucet water temperature <=110°F.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.4.4	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.5.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.5.2	Mechanical	Pool covers are provided for heated pools and pools heated to >90°F have a cover >=R-12.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.5.3	Mechanical	Time switches are installed on all pool heaters and pumps.	☐	☐	☐
Wattage	9.2.2.3	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.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.3	Mechanical	All piping in recirculating system insulated	☐	☐	☐
SYSTEM_SPECIFIC	7.4.3	Mechanical	First 8 ft of outlet piping in nonrecirculating storage system, or branch piping connected to recirculated, heat traced, or impredance heated piping is insulated.	☐	☐	☐
SYSTEM_SPECIFIC	7.4.3	Mechanical	All heat traced or externally heated piping insulated	☐	☐	☐
Wattage	9.4.4	Interior Lighting	At least 75% of all permanently installed lighting fixtures in dwelling units have >= 55 lm/W efficacy or a >= 45 lm/W total luminaire efficacy.	☐	☐	☐

4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy

Plan Review	6.7.2.4	Mechanical	Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft2.	☐	☐	☐
Plan Review	6.7.2.4	Mechanical	Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft2.	☐	☐	☐
Post Construction	6.7.2.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐	☐	☐
Post Construction	6.7.2.2	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐	☐	☐
Post Construction	6.7.2.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft2 of conditioned area.	☐	☐	☐

HVAC	6.7.2.4	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.
Post Construction	8.7.1	Interior Lighting	Furnished as-built drawings for electric power systems within 30 days of system acceptance.
Post Construction	8.7.2	Interior Lighting	Furnished O&M instructions for systems and equipment to the building owner or designated representative.





EnergyGauge Summit® v7.00

INPUT DATA REPORT

Project Information

Project Name: SPA

Project Title: Quantum on Bay Spa

Address: Quantum on the Bay
1900 North Bayshore Drive

State: Fl

Zip: 0

Owner:

Orientation: 0 Deg Clockwise. Walls & Windows will be rotated accordingly

Building Type: Healthcare-Clinic

Building Classification: Renovation to existing building

No.of Stories: 1

GrossArea: 746 SF

Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]	
1	SPA	SPA	CONDITIONED	746.0	1	746.0	☐

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multiplier	Total Area [sf]	Total Volume [cf]

In Zone:	**SPA**									
1	SPA	SPA	Physical Therapy (Hospital)	29.84	25.00	12.00	1	746.0	8952.0	☐

Lighting

	No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No.of Ctrl pts	
In Zone:	**SPA**								
In Space:	**SPA**								
	1	Recessed Fluorescent - No vent	General Lighting	6	15	90	Manual On/Off	2	☐

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

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Orientation	Conductance [Btu/hr. sf. F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone:	**SPA**											
1	N WALL	5/8" stucco /8"CMU/3/4"ISO BTWN24"oc/.5" Gyp	35.00	12.00	1	420.0	North	0.2067	5.731	34.65	4.8	☐
2	E WALL	5/8" stucco /8"CMU/3/4"ISO BTWN24"oc/.5" Gyp	19.00	12.00	1	228.0	East	0.2067	5.731	34.65	4.8	☐
3	SE WALL	5/8" stucco /8"CMU/3/4"ISO BTWN24"oc/.5" Gyp	13.00	12.00	1	156.0	SouthEast	0.2067	5.731	34.65	4.8	☐

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:
In Wall:

Doors

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

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Tilt [deg]	Cond. [Btu/hr. Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]
In Zone:											

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:										

Floors

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]
In Zone:	**SPA**									

1	FLOOR	1 ft. soil, concrete floor, carpet and rubber pad	25.00	29.84	1	746.0	0.2681	34.00	11	3	3.73

Systems

FC-1 **FC-1** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. Of Units 1**

Component	Category	Capacity	Efficiency	IPLV
1	Cooling System	33510.00	14.00	8.00
2	Heating System	43740.00	8.20	
3	Air Handling System -Supply	1200.00	0.80	

Plant

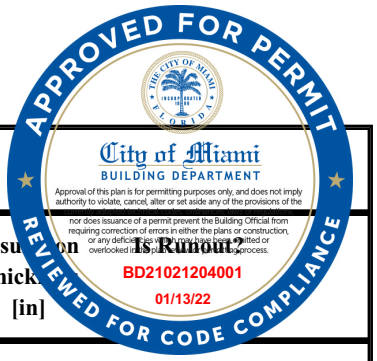
Equipment	Category	Size	Inst.No	Eff.	IPLV

Water Heaters

W-Heater Description	Capacity Cap.Unit	I/P Rt.	Efficiency	Loss
1 Electric Storage water heater	3 [Gal]	8 [kW]	0.9200 [Ef]	[Btu/h]

Ext-Lighting

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



Piping

No	Type	Operating Temperature [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	0.50	No	☐

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT	
						☐

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [lb/cf]	SpecificHeat [Btu/lb.F]	
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000	☐
178	Matl178	CARPET W/RUBBER PAD	Yes	1.2300					☐
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000	☐
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000	☐
268	Matl268	0.625" stucco	No	0.1302	0.0521	0.4000	16.00	0.2000	☐
42	Matl42	8 in. Lightweight concrete block	No	2.0212	0.6670	0.3300	38.00	0.2000	☐
269	Matl269	.75" ISO BTWN24" oc	No	2.2321	0.0625	0.0280	4.19	0.3000	☐

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	ensity [lb/cf]	RValue [h.sf.F/Btu]	
1011	5/8" stucco /8"CMU/3/4"ISO BTWN24"oc/.5" Gyp	No	No	0.21	5.73	65	4.8	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	268	0.625" stucco	0.0521	0.000	☐
2	42	8 in. Lightweight concrete block	0.6670	0.000	☐
3	269	.75" ISO BTWN24" oc	0.0625	0.000	☐
4	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1057	1 ft. soil, concrete floor, carpet and rubber pad	No	No	0.27	34.00	113.33	3.7	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	265	Soil, 1 ft	1.0000	0.000	☐
2	48	6 in. Heavyweight concrete	0.5000	0.000	☐
3	178	CARPET W/RUBBER PAD		0.000	☐

Profiles

0	0	No Classification	No Classification		
	201	People	2	Fractional Null Schedule
	202	Lighting	2	Fractional Null Schedule
	203	Infiltration	2	Fractional Null Schedule
	204	Equipment	2	Fractional Null Schedule
	205	Sources	2	Fractional Null Schedule
	206	HeatTemp	202	Set Point 55
	207	CoolTemp	201	Set Point 99
	208	Hot Water Schedule	2	Fractional Null Schedule
	1,001	Heating Schedule	1	ON-OFF Null Schedule
	1,002	Cooling Schedule	1	ON-OFF Null Schedule
	1,003	Fan Operation Schedule	1	ON-OFF Null Schedule

501	501	ACM-NonRes	ACM Nonres		
	201	People	519	ACM Nonres People
	202	Lighting	507	ACM Nonres Lights
	203	Infiltration	516	ACM Nonres Infiltration
	204	Equipment	510	ACM Nonres Equipment
	205	Sources	2	Fractional Null Schedule
	206	HeatTemp	501	ACM Nonres Heating
	207	CoolTemp	504	ACM Nonres Cooling
	208	Hot Water Schedule	522	ACM Nonres Hot Water
	1,001	Heating Schedule	410	Always ON
	1,002	Cooling Schedule	410	Always ON
	1,003	Fan Operation Schedule	513	ACM Nonres Fans

Schedules

1 1 On/Off ON-OFF Null Schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1

2 2 Fraction Fractional Null Schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2

44 44 Absolute SetPt78

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179

45 45 Absolute Set Point 70

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180

201 201 Absolute Set Point 99

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201

202 202 Absolute Set Point 55

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202

410 410 On/Off Always ON

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410

412 412 Absolute Florida Commercial Electric Rate

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
3/31/1989	ShHr413	ShHr413	ShHr413	ShHr413	ShHr413	ShHr415	ShHr415	ShHr415
10/31/1989	ShHr412	ShHr412	ShHr412	ShHr412	ShHr412	ShHr412	ShHr414	ShHr414
12/31/1989	ShHr413	ShHr413	ShHr413	ShHr413	ShHr413	ShHr415	ShHr415	ShHr415

501 501 Absolute ACM Nonres Heating

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr501	ShHr501	ShHr501	ShHr501	ShHr501	ShHr502	ShHr503	ShHr503

504 504 Absolute ACM Nonres Cooling

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr504	ShHr504	ShHr504	ShHr504	ShHr504	ShHr505	ShHr506	ShHr506

507 507 Fraction ACM Nonres Lights

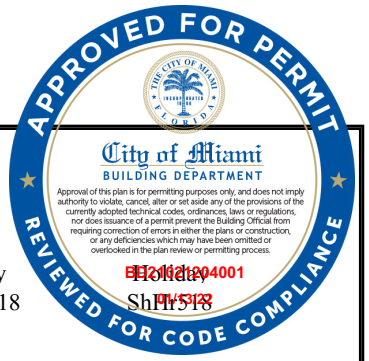
Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr507	ShHr507	ShHr507	ShHr507	ShHr507	ShHr508	ShHr509	ShHr509

510 510 Fraction ACM Nonres Equipment

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr510	ShHr510	ShHr510	ShHr510	ShHr510	ShHr511	ShHr512	ShHr512

513 513 On/Off ACM Nonres Fans

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr513	ShHr513	ShHr513	ShHr513	ShHr513	ShHr514	ShHr515	ShHr515



516 516 Fraction ACM Nonres Infiltration

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr516	ShHr516	ShHr516	ShHr516	ShHr516	ShHr517	ShHr518	ShHr518

519 519 Fraction ACM Nonres People

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr519	ShHr519	ShHr519	ShHr519	ShHr519	ShHr520	ShHr521	ShHr521

522 522 Fraction ACM Nonres Hot Water

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr522	ShHr522	ShHr522	ShHr522	ShHr522	ShHr523	ShHr524	ShHr524

1,001 1,001 Absolute Absolute null schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001

1,002 1,002 Absolute Absolute null schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002

Hourly Schedules

Id	Acronym	Type	Values	Hours 1 thru 8							
				Hours 9 - 16							
				Hours 17 - 24							
1	ShHr1	On/Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
On-Off Null Schedule			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	ShHr2	Fraction	0	0	0	0	0	0	0	0	0
Fraction Null Schedule			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
3	ShHr3	Absolute	0	0	0	0	0	0	0	0	0
Absolute Null Schedule			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
179	ShHr179	Absolute	78	78	78	78	78	78	78	78	78
Set point 78 F All Day			78	78	78	78	78	78	78	78	78
			78	78	78	78	78	78	78	78	78
180	ShHr180	Absolute	70	70	70	70	70	70	70	70	70
Set Point 70 F All Day			70	70	70	70	70	70	70	70	70
			70	70	70	70	70	70	70	70	70
201	ShHr201	Absolute	99	99	99	99	99	99	99	99	99
Set point 99			99	99	99	99	99	99	99	99	99
			99	99	99	99	99	99	99	99	99
202	ShHr202	Absolute	45	45	45	45	45	45	45	45	45
Set Point 55			45	45	45	45	45	45	45	45	45
			45	45	45	45	45	45	45	45	45
410	ShHr410	On/Off	ON	ON	ON	ON	ON	ON	ON	ON	ON
Always On schedule			ON	ON	ON	ON	ON	ON	ON	ON	ON
			ON	ON	ON	ON	ON	ON	ON	ON	ON
411	ShHr411	On/Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Always Off Schedule			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
412	ShHr412	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
Florida Avg. Week Day Summer Elec			0.03804	0.03804	0.03804	0.0686	0.0686	0.0686	0.0686	0.0686	0.0686
			0.0686	0.0686	0.0686	0.0686	0.0686	0.03804	0.03804	0.03804	0.03804

413	ShHr413	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.0686	0.0686	0.0686
Florida Avg. Week Day Winter Electri			0.0686	0.0686	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
			0.03804	0.0686	0.0686	0.0686	0.0686	0.0686	0.03804	0.03804
414	ShHr414	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
Florida Avg. Week End Summer Elect			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
415	ShHr415	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
Florida Avg. Week End Winter Electri			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
501	ShHr501	Absolute	60	60	60	60	60	65	65	70
ACM Nonres Heating Weekday			70	70	70	70	70	70	70	70
			70	70	65	60	60	60	60	60
502	ShHr502	Absolute	60	60	60	60	60	65	65	65
ACM Nonres Heating Saturday			65	65	65	65	65	65	65	65
			60	60	60	60	60	60	60	60
503	ShHr503	Absolute	60	60	60	60	60	65	65	65
ACM Nonres Heating Sunday			65	65	65	65	65	65	65	65
			60	60	60	60	60	60	60	60
504	ShHr504	Absolute	77	77	77	77	77	73	73	73
ACM Nonres Cooling Weekday			73	73	73	73	73	73	73	73
			73	73	77	77	77	77	77	77
505	ShHr505	Absolute	77	77	77	77	77	73	73	73
ACM Nonres Cooling Saturday			73	73	73	73	73	73	73	73
			73	73	77	77	77	77	77	77
506	ShHr506	Absolute	77	77	77	77	77	73	73	73
ACM Nonres Cooling Sunday			73	73	73	73	73	73	73	73
			73	73	77	77	77	77	77	77
507	ShHr507	Fraction	0.05	0.05	0.05	0.05	0.1	0.2	0.4	0.7
ACM Nonres Lights Weekday			0.8	0.85	0.85	0.85	0.85	0.85	0.85	0.85
			0.85	0.8	0.35	0.1	0.1	0.1	0.1	0.1
508	ShHr508	Fraction	0.05	0.05	0.05	0.05	0.05	0.1	0.15	0.25
ACM Nonres Lights Saturday			0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2
			0.2	0.15	0.1	0.1	0.1	0.1	0.1	0.1
509	ShHr509	Fraction	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.15
ACM Nonres Lights Sunday			0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
			0.15	0.1	0.1	0.1	0.05	0.05	0.05	0.05

510 ShHr510 Fraction	0.15	0.15	0.15	0.15	0.15	0.2	0.35	0.6
ACM Nonres Equipment Weekday	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	0.65	0.45	0.3	0.2	0.2	0.15	0.15	0.15
511 ShHr511 Fraction	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2
ACM Nonres Equipment Saturday	0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2
	0.2	0.15	0.15	0.15	0.15	0.15	0.15	0.15
512 ShHr512 Fraction	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2
ACM Nonres Equipment Sunday	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.15	0.15	0.15	0.15	0.15	0.15	0.15
513 ShHr513 On/Off	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
ACM Nonres Fans Weekday	ON	ON	ON	ON	ON	ON	ON	ON
	ON	ON	ON	ON	OFF	OFF	OFF	OFF
514 ShHr514 On/Off	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
ACM Nonres Fans Saturday	ON	ON	ON	ON	ON	ON	ON	OFF
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
515 ShHr515 On/Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ACM Nonres Fans Sunday	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
516 ShHr516 Fraction	1	1	1	1	1	0	0	0
ACM Nonres Infiltration Weekday	0	0	0	0	0	0	0	0
	0	0	0	0	1	1	1	1
517 ShHr517 Fraction	1	1	1	1	1	0	0	0
ACM Nonres Infiltration Saturday	0	0	0	0	0	0	0	1
	1	1	1	1	1	1	1	1
518 ShHr518 Fraction	1	1	1	1	1	1	1	1
ACM Nonres Infiltration Sunday	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1
519 ShHr519 Fraction	0	0	0	0	0.05	0.1	0.25	0.65
ACM Nonres People Weekday	0.65	0.65	0.65	0.6	0.6	0.65	0.65	0.65
	0.65	0.4	0.25	0.1	0.05	0.05	0.05	0
520 ShHr520 Fraction	0	0	0	0	0	0	0.05	0.15
ACM Nonres People Saturday	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	0.15	0.05	0.05	0.05	0	0	0	0
521 ShHr521 Fraction	0	0	0	0	0	0	0	0.05
ACM Nonres People Sunday	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	0.05	0.05	0.05	0.05	0	0	0	0

522	ShHr522	Fraction	0	0	0	0	0.1	0.1	0.5	0.5
ACM Nonres Hot Water Weekday			0.5	0.5	0.7	0.9	0.9	0.5	0.5	0.7
			0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1
523	ShHr523	Fraction	0	0	0	0	0	0	0.1	0.2
ACM Nonres Hot Water Saturday			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			0.2	0.1	0.1	0.1	0	0	0	0
524	ShHr524	Fraction	0	0	0	0	0	0	0	0.1
ACM Nonres Hot Water Sunday			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
			0.1	0.1	0.1	0.1	0	0	0	0
0,001	ShHr10001	Absolute	0	0	0	0	0	0	0	0
Absolute Null Schedule			0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0
0,002	ShHr10002	Absolute	0	0	0	0	0	0	0	0
Absolute Null Schedule			0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0