



ENGINEERING • INSPECTIONS
CERTIFICATIONS • TESTING

Southeast Modular Manufacturing
2500 Industrial Street
Lecsburg, FL 34748

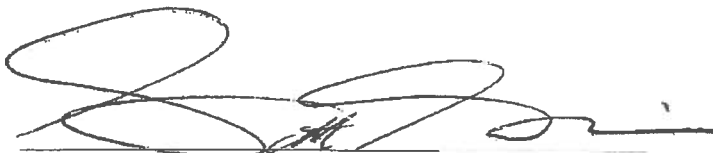
RE: Manufacturer: Southeast Modular Manufacturing
S/N Size & Occupancy: 19662 AB; 23'-4" x 60'-0"; Business
HWC Plan#: 1578-5354F

To Whom It May Concern:

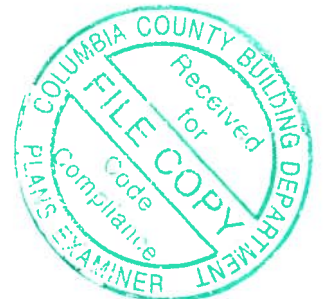
This is to certify that the plans for the referenced manufactured building have been reviewed and approved as being in compliance with the 2017 Florida Codes as noted on the approved drawings, subject to the following limitations:

1. Approval covers factory-built structure only. (Note: Any alterations to factory built structure on site voids state approval)
2. Items installed at the site are subject to review, approval, and inspection by the local authority having jurisdiction.
3. The Chapter 633 Plan Review and Inspection shall be conducted by the local fire safety inspector.
4. Signed and scaled plans shall be on file with HWC Engineering.
5. NOT Approved for High Velocity Hurricane Zone (i.e. Broward and Dade Counties)

Sincerely,
HILBORN, WERNER, CARTER & ASSOCIATES, INC.

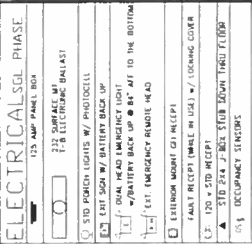


Plan Reviewer



HILBORN, WERNER, CARTER AND ASSOCIATES, INC.
1827 SOUTH MYRTLE AVENUE CLEARWATER, FLORIDA 33756
(727) 584-8151
FAX: (727) 586-3343 / (727) 585-2392 / (727) 587-0447
Modular Design Inspection

3 of 7
SHEET



DEALER: WILLIAMS SCOTSMAN
ASSOCIATED ASPHALT HOPEWELL
SERIAL No. 19662 A/B
ELECTRICAL PLAN

REVISIONS	09/04/2018
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Southeast Modular Manufacturing
2500 INDUSTRIAL STREET
LEESBURG, FLORIDA 34748



PRINTED BY BARBARA
 PRINTED BY BARBARA
 DATE 07/10/2018
 PAGE 14 OF 10
 PAGE 1578-5354 F
 SERIAL# 18662 A/B

SHEET
4 7

USING		AGENCY APPROVAL	
THIS FORM IS TO BE COMPLETED BY THE FLOODING CONTRACTOR. THE CONTRACTOR SHALL FURNISH THE CONSTRUCTION DATA AND INFORMATION TO THE FLOODING CONTRACTOR.			
CONVST TYPE	NO	BUSINESS	NO
OCCUPANCY	NO		
NO OF FLOORS	1		
RISK CATEGORY	II		
WIND VELOCITY (U/L1)	160		
WIND VELOCITY (ASD)	174		
FIRE RATING OF	0		
WALLS			
PLAN NO	1578-3354	I	
FLOOR			
FLOOR LOAD	50/100		
APPROVAL DATE	9/11/10		
MANUFACTURER	5MM		
HIGH VELOCITY			
HURRICANE ZONE	NO		

JAMES BRADLEY P.E.
CONSULTING ENGINEER
212 FOX TRAIL
PARKESBURG, PA. 19365

HIRD PARTY
HWC
HIILBORN, WERNER, CARTER
& ASSOCIATES
1627 SOUTH MYRTLE AVE
CLEARWATER, FLORIDA 33756



ELECTRICAL SCHEDULE B					
CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU)		
2,4	HWAC	60A (2P)	6-6-8 NM		
1,3	LIGHTING	20A	12-2 NM		
5,6,7	RECEPTACLES	20A	12-2 NM		
B	ATCIC FAJ	20 A	12-2 NM		
9	DEDICATED RECEPT	20A	12-2 NM		
ELECTRICAL PANEL SIZING:					
DESCRIPTION			KVA		
GENERAL LIGHTING					
0035	KW/SF	700	SF	1.25	3.07
1B	RECEPTS AT 180VA/1000				3.24
1	DEDICATED RECEPT				2.40
1	ATCIC FAJ				0.00
0	0 KW				0.23
1	10.9 KW				0.00
1	HWAC				10.9
TOTAL			19.84	KW	
TOTAL/240 X 1000			82.70	AMPS	
INSTALL			125	AMP PANEL	
20/240 V 1ø					

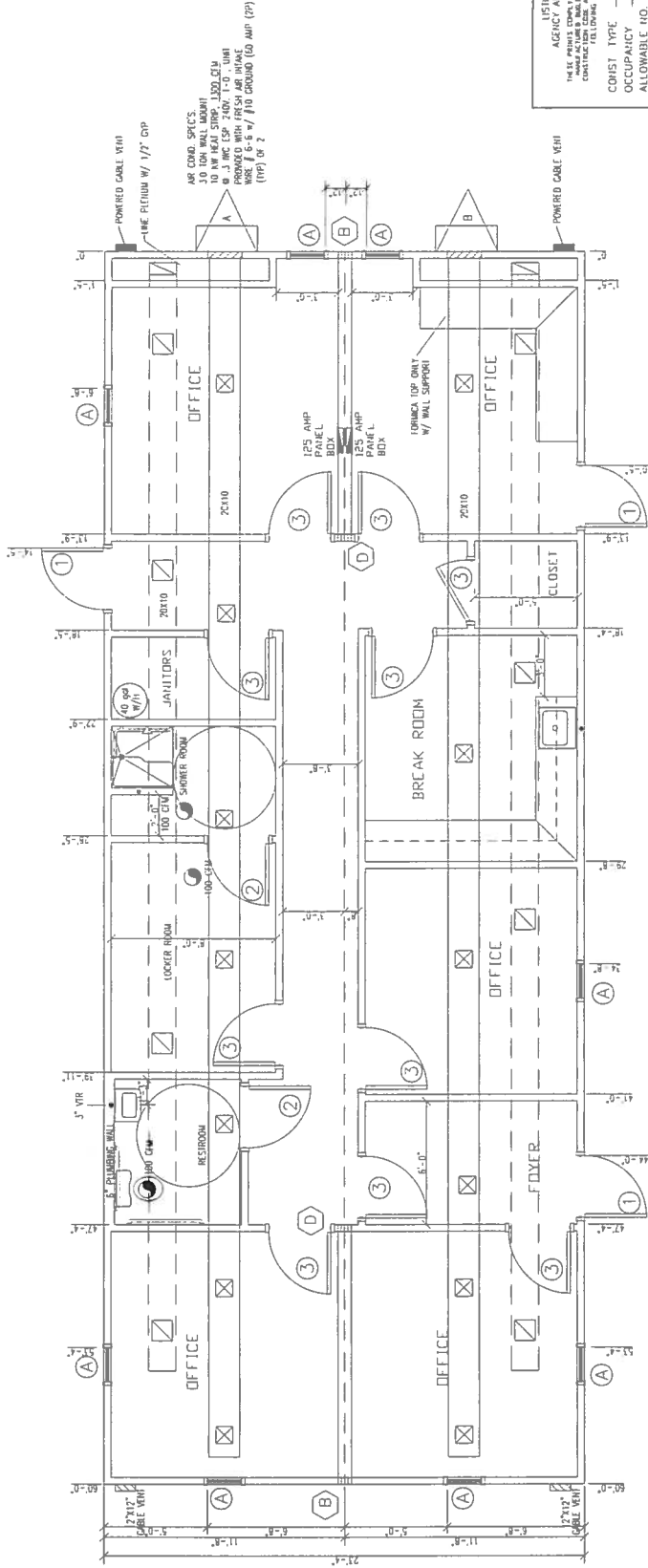
ELECTRICAL SCHEDULE A					
CIRCUIT	IDENTIFICATION	BREAKER (AMPS)	WIRE (CU)		
2,4	HVAC	50A (2P)	6-6-B	X	
1,3	LIGHTING / FAN	20A	12-2 NM		
6,8	RECEPTACLES	20A	12-2 NM		
9	ATTIC FAN	20A	12-2 NM		
5,7	WATER HEATER	30A	12-2 NM		
ELECTRICAL PANEL SIZING					
DESCRIPTION			KVA		
GENERAL LIGHTING					
0035	KW/SF	700	SF	1.75	3.07
12	RECEPTS AT 180VA/1000				2.18
--	HEAT/ WATER HEATER				0.00
1	40 CAL WATER HEATER				5.50
1	ATTIC FAN				0.23
3	100 CFM FAN	32	KW	1.75	1.20
1	HVAC	10.9	KW		10.9
TOTAL			23.06	KW	
TOTAL 240 x 1000			96.11	AMPS	
INSTALL			125	A1P1 PANEL	
120/240 V 1Ø					

*CANNOT BE SE CABLE WIRE MUST BE RATED @ 75° MIN.
GREATFIELD ONLY FOR HVAC UNIT

ALL RECEIPTS 18* AFF UNLESS SPECIFIED OTHERWISE ON PRINT

SYMBOLS LEGEND

- 10X10 SUPPLY AIR DIFFUSER
- 12X12 RETURN AIR DIFFUSER
- PROGRAMMABLE THERMOSTAT @ 48" AFF



LETTING AGENCY APPROVAL

THIS IS PRINTED COPY WITH THE FLORIDA CONTRACTING BOARD AND SHALL BE THE CONTRACTING BOARD AND SHALL BE THE CONTRACTING BOARD AND SHALL BE THE CONTRACTING BOARD

CONSIST TYPE	BUSINESS
OCCUPANCY	1
ALLOWABLE NO.	1
RISK CATEGORY	II
WIND VELOCITY (U/I)	160
WIND VELOCITY (ASD)	175
FIRE RATING OF EX. WALLS	0
PLANT NO.	157H-5154 I
ALLOW. FLOOR LOAD	50/100
APPROVAL DATE	01-11-18
MANUFACTURER	SWAN
HIGH VELOCITY	NO
HURRICANE ZONE	NO

DATE 2/1



JAMES BRADLEY P.E.
CONSULTING ENGINEER
212 FOX TRAIL
PARKESBURG, PA. 19365

THIRD PARTY
HWC
HILBORN, WERNER, CARTER
& ASSOCIATES
1627 SOUTH MYRTLE AVE.
CLEARWATER, FLORIDA 33756

DEALER: WILLIAMS SCOTSMAN
ASSOCIATED ASPHALT HOPWELL
SERIAL No. 19662 A/B
MECHANICAL PLAN

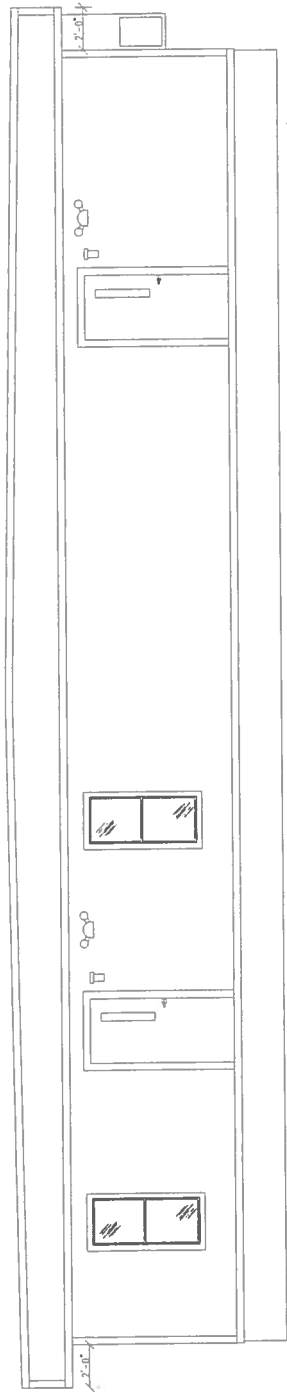
Southeast Modular
Manufacturing
2500 INDUSTRIAL STREET
LEESBURG, FLORIDA 33478



DRAWN BY: BARBARA
CHECKED BY: JH
DATE: 07/02/2018
SCALE: 1/8" = 1'-0"
PROJECT: 132H-5154 I
SERIAL # 19662 A/B

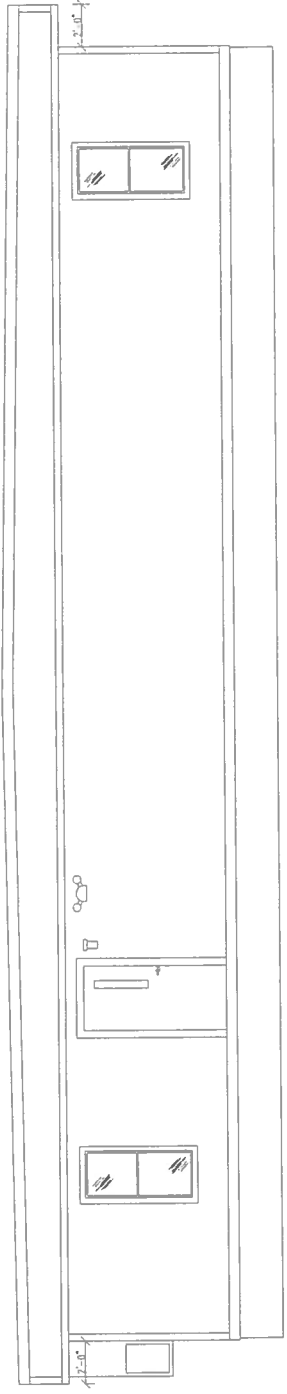
SHEET
5 OF 7

1/4" 12' SCALE



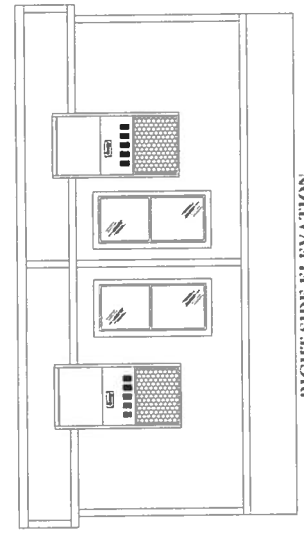
FRONT ELEVATION

1/4" 12' SCALE



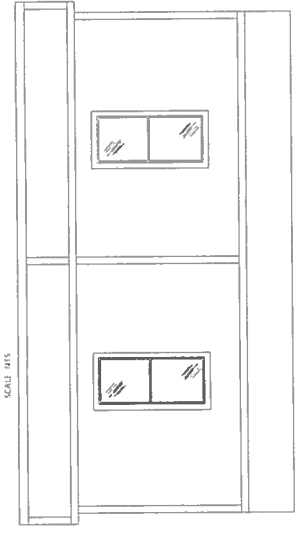
REAR ELEVATION

HANDICAP RAMP, STAIRS, AND HANDRAILS
SHALL BE INSTALLED IN ACCORDANCE WITH
THE 2010 INTERNATIONAL BUILDING CODE, AND
SUBJECT TO LOCAL CODE REQUIREMENTS.



RIGHT SIDE ELEVATION

SCALE: 1/8" = 1'-0"



LEFT SIDE ELEVATION

SCALE: 1/8" = 1'-0"

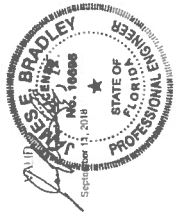
- (1) SKIRT, SKIRT VENTILATION, & ACCESS TO BE PROVIDED & INSTALLED BY MODSPACE ON SITE
- (2) ALL GLASS IN DOORS & WITHIN 24" OF DOORS IS SAFETY GLAZED
- (3) HANDICAP ACCESS REQUIREMENTS TO BE PROVIDED & INSTALLED BY MODSPACE ON SITE
- (4) FOUNDATION ENCLOSURES (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET AREA PER 150 SQ FT. OF THE FLOOR AREA
- (5) AN 18"x24" MINIMUM CRAWL SPACE ACCESS TO BE SITE INSTALLED BY CONTRACTOR

LISTING AGENCY APPROVAL
THIS PROJECT COMPLETION DATE: 10/15/2018
CONTRACTOR: JAMES BRADLEY P.E. CONSULTING ENGINEER
10000 PARKWAY, SUITE 1000
PARKESBURG, PA 19365

CONSTR. TYPE: BUSINESS
OCCUPANCY: BUSINESS
ALLOWABLE NO. OF PERSONS: 1
RISK CATEGORY: I
WIND VELOCITY (MI/H): 160
WIND VELOCITY (ASD): 174
FIRE RATING OF EX. WALLS: 0
PLAT. NO.: 15/B-5254 F
ALLOW. FLOOR LOAD: 50/100
APPROVAL DATE: 9/11/18
MANUFACTURER: SMU
HIGH VELOCITY: NO
HURRICANE ZONE: NO

UWG
MAP 203

JAMES BRADLEY P.E.
CONSULTING ENGINEER
212 FOX TRAIL
PARKESBURG, PA. 19365

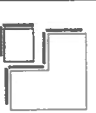


THIRD PARTY: HUBBON, WERNER, CARTER
HWC
1627 SOUTH MYRILE AVE.
CLEARWATER, FLORIDA 33756

DEALER: WILLIAMS SCOTSMAN
ASSOCIATED ASPHALT HOPEWELL
SERIAL NO. 19662 A/B
ELEVATION PLAN

REV	DATE	DESCRIPTION
1	09/14/2018	

Southeast Modular Manufacturing
2500 INDUSTRIAL STREET
LEESBURG, FLORIDA 34748



CHECKED BY: BAMBURA
DATE: 10/15/2018
SCALE: 1/4" = 1'-0"
UWG # 1526-5254 F
SERIAL # 19662 A/B

SHEET
6 OF 7

Florida Building Code, Sixth Edition (2017) - Energy Conservation

EnergyGauge Summit® Fla/Com-2017, Effective Date: Dec 31, 2017

IECC 2015 - 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.

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: SOUTHEAST MODULAR

Description: SMM 19662

Owner: SOUTHEAST

Address1: Enter Address here

City: LAKE CITY

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: LAKE CITY, COLUMBIA COUNTY, FL (221200)

Conditioned Area: 1259 SF

Conditioned & UnConditioned Area: 1259 SF

No of Stories: 1

Area entered from Plans 1400 SF

Permit No: 0

Max Tonnage 3

If different, write in: _____

Building Rotation: 270 Deg Clockwise. Walls & windows will be rotated accordingly

Compliance Summary			
Component	Design	Criteria	Result
Gross Energy Cost (in \$)	783.0	805.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
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: James E. Bradley, P.E.

Date: September 11, 2018

Date: 9-11-18 Plan No. 1578-5354F
Approved By: SCOTT S. FORD

Bu: _____

Modular Building Plans Examiner
Florida License No. SNP-42

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

XXXXXXX

Architect: James Bradley

James E. Bradley, P.E.
Consulting Engineer
1765 Carnegie Avenue
Clearwater, FL 33756

September 11, 2018

Electrical Designer: _____

Lighting Designer: _____

Mechanical Designer: _____

Plumbing Designer: _____

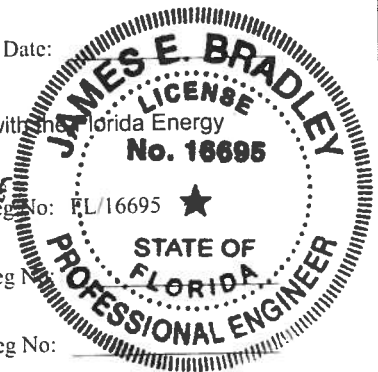
Reg No: FL/16695

Reg No: _____

Reg No: _____

Reg No: _____

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.

SEE MANUFACTURER'S CONTRACT
WITH FLORIDA DBPR

Project: SOUTHEAST MODULAR
Title: SMM 19662
Type: Office
(WEA File: FL JACKSONVILLE INTL ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	50.10	60.40
	\$783	\$947
ELECTRICITY(MBtu/kWh/\$)	50.10	60.40
	14720	17698
	\$783	\$947
AREA LIGHTS	14.60	14.00
	4287	4090
	\$228	\$219
MISC EQUIPMT	15.80	15.80
	4639	4639
	\$247	\$248
SPACE COOL	14.70	18.90
	4321	5539
	\$230	\$296
SPACE HEAT	1.10	1.50
	324	443
	\$17	\$24
VENT FANS	3.90	10.20
	1149	2987
	\$61	\$160

Credits Applied: None

Passing Criteria = 805

Design (including any credits) = 783

Passing requires Proposed Building cost to be at most 85% of
Baseline cost. This Proposed Building is at 82.7%

PASSES

Project: SOUTHEAST MODULAR
 Title: SMM 19662
 Type: Office
 (WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 1	Main entries	Yes	30.00	3.0	90	60
Ext Light 2	Other (doors) than main entries	Yes	20.00	3.0	60	60
Ext Light 3	Other (doors) than main entries	Yes	20.00	3.0	60	60

Tradable Surfaces: 180 (W) Allowance for Tradable: 960 (W)

PASSES

All External Lighting: 180 (W)

Compliance check includes a excess/Base allowance of 750.00(W)

Project: SOUTHEAST MODULAR
 Title: SMM 19662
 Type: Office
 (WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
JANITOR	2	Storage & Warehouse - Inactive Storage	32	1	1	PASSES
OFFICE 1-2	17	Office - Enclosed	132	2	2	PASSES
RESTROOM	6	Toilet and Washroom	42	1	1	PASSES
LOCKER ROOM	23	Locker Room	89	1	1	PASSES
SHOWER ROOM	6	Toilet and Washroom	43	1	1	PASSES
OFFICE 3-4	17	Office - Enclosed	137	2	2	PASSES
CLOSET	2	Storage & Warehouse - Inactive Storage	21	1	1	PASSES
BREAK ROOM	7	Food Service - Kitchen	114	1	1	PASSES
OFFICE 5	17	Office - Enclosed	114	1	1	PASSES
FOYER	12	Lobby (General) - Reception and Waiting	36	1	1	PASSES
CORRIDOR	17	Office - Enclosed	230	2	1	PASSES

PASSES

Project: SOUTHEAST MODULAR
Title: SMM 19662
Type: Office
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

System Report Compliance

ZONE 1	ZONE 1	Single Package Vertical A/C				No. of Units	
						2	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Single Package Vertical A/C	36000	13.00	9.00			PASSES
Heating System	Electric Furnace	34100	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1300	0.30	0.82			PASSES
Air Distribution System (Sup)	ADS System (Sup)		6.00	4.20			PASSES
Air Distribution System (Ret)	ADS System (Ret)		6.00				PASSES
							PASSES

Plant Compliance

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

Project: SOUTHEAST MODULAR

Title: SMM 19662

Type: Office

(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	1.00	0.92			PASSES
							PASSES

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
							None

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						
Insulation	C303.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	☐	☒	☐
Insulation	C303.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	☐	☒	☐
Insulation	C303.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	☒	☐	☐
Insulation	C402.3	Envelope	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance ≥ 0.55 and thermal emittance ≥ 0.75 or 3-year-aged solar reflectance index ≥ 64.0 .	☐	☒	☐
Fenestration	C402.4.4	Envelope	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☒	☐	☐
SYSTEM_SPECIFIC	C403.2.12.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☒	☐	☐
SYSTEM_SPECIFIC	C403.2.12.2	Mechanical	HVAC fan motors not oversized beyond allowable limits.	☒	☐	☐
SYSTEM_SPECIFIC	C403.2.3(8) Table	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement meet those listed in Table C403.2.3(8)	☐	☒	☐
HVAC	C403.2.7	Mechanical	Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).	☒	☐	☐
SYSTEM_SPECIFIC	C403.3	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.	☒	☐	☐
SYSTEM_SPECIFIC	C403.3.2	Mechanical	Economizer operation will not increase heating energy use during normal operation.	☒	☐	☐
SYSTEM_SPECIFIC	C403.3.4, C403.3.4.1, C403.3.4.2, C403.3.1	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.3.1	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.3.4	Mechanical	Open-circuit cooling towers having water cooled chiller systems and multiple or variable speed condenser pumps, are designed so that tower cells can run in parallel with larger of flow criteria.	☐	☒	☐
SYSTEM_SPECIFIC	C404.2	Mechanical	Service water heating equipment meets efficiency requirements.	☐	☒	☐
Wattage	C405.3	Interior Lighting	Exit signs do not exceed 5 watts per face.	☒	☐	☐
2. To be checked by Plan Reviewer						
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.	☒	☐	☐

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 st	☒	☐	☐
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 manufact	☐	☒	☐
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 shoul	☒	☐	☐
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 shoul	☒	☐	☐
Insulation	C402.2.5	Envelope	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or ≥ 10 inches of soil.	☐	☒	☐
Insulation	C402.2.6	Project	Radiant heating systems panels insulated to $\geq R-3.5$ on face opposite space being heated.	☐	☒	☐
HVAC	C402.2.6	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation $\geq R-3.5$.	☐	☒	☐
Insulation	C402.2.6	Envelope	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐	☒	☐
Air Leakage	C402.5.7	Envelope	Vestibules are installed on all building entrances. Doors have self-closing devices.	☐	☒	☐
SYSTEM_SPECIFIC	C403.2.12.3	Mechanical	Fans have efficiency grade (FEG) ≥ 67 . The total efficiency of the fan at the design point of operation $\leq 15\%$ of maximum total efficiency of the fan.	☐	☒	☐
HVAC	C403.2.13	Mechanical	Unenclosed spaces that are heated use only radiant heat.	☐	☒	☐
HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐	☒	☐
SYSTEM_SPECIFIC	C403.2.4.4	Mechanical	Zone isolation devices and controls installed where applicable.	☐	☒	☐
SYSTEM_SPECIFIC	C403.2.4.7	Mechanical	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	☐	☒	☐
SYSTEM_SPECIFIC	C403.2.5	Mechanical	Hot water boilers supplying heat via one- or two-pipe systems include outdoor setback control.	☐	☒	☐
HVAC	C403.2.6.1	Mechanical	Demand control ventilation provided for spaces >500 ft ² and >25 people/1000 ft ² occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow $>3,000$ cfm.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.1.1	Mechanical	Hydronic and multizone HVAC system controls are VAV fans driven by mechanical or electrical variable speed drive per Table C403.4.1.1.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.1.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2	Mechanical	Temperature reset by representative building loads in pumping systems for chiller and boiler systems $>500,000$ Btu/h.	☐	☒	☐

SYSTEM_SPECIFIC	C403.4.2.3.2.1	Mechanical	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or cl	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.4	Mechanical	Hydronic systems greater than 500,000 Btu/h designed for variable fluid flow.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.5	Mechanical	System turndown requirement met through multiple single-input boilers, one or more modulating boilers, or a combination of single-input and modulating boilers.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.6	Mechanical	Boiler input between 1.0 MBtu/h and 5 MBtu/h has 3:1 turndown ratio, boiler input between 5.0 Chilled water plants with multiple chillers have capability to reduce flow automatically through the chiller plant when a chiller is shut down. Boiler plants with multiple boilers have the capability to reduce flow automatically through the boiler plant	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.3, C403.4.3.2	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.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.4.5	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.4.6	Mechanical	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐	☒	☐
SYSTEM_SPECIFIC	C404.2.1	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment $\geq 1,000$ kBtu/h serves the entire building, thermal efficiency ≥ 90 Et. Where multiple pieces of water-heating equipment serve the building wi	☐	☒	☐
SYSTEM_SPECIFIC	C404.4	Mechanical	All piping insulated in accordance with section details and Table C403.2.10.	☐	☒	☐
SYSTEM_SPECIFIC	C404.5, C404.5.1, C404.5.2	Mechanical	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐	☒	☐
SYSTEM_SPECIFIC	C404.6.3	Mechanical	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to ≤ 5 minutes after end of heating cycle.	☐	☒	☐
SYSTEM_SPECIFIC	C404.7	Mechanical	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving	☐	☒	☐
Wattage	C405.5.1	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.	☒	☐	☐
Plan Review	C405.6	Project	Group R-2 dwelling units have separate electrical meters.	☐	☒	☐
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.	☒	☐	☐
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	☐	☒	☐
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	☐	☒	☐

3. To be checked by Inspector

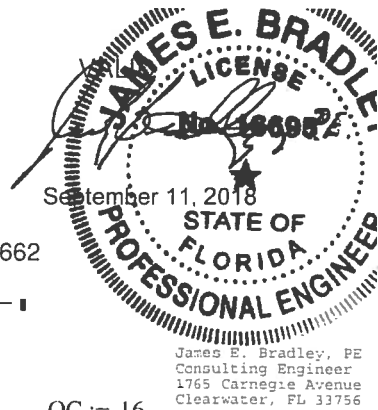
Insulation	C303.1	Envelope	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is ≤ 3 in 12.	☒	☐	☐
Insulation	C303.1	Envelope	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☒	☐	☐
Fenestration	C303.1.3	Envelope	Fenestration products rated in accordance with NFRC.	☒	☐	☐
Fenestration	C303.1.3	Envelope	Fenestration products are certified as to performance labels or certificates provided.	☒	☐	☐
Insulation	C303.2, C402.2.4	Envelope	Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.	☒	☐	☐
Insulation	C303.2.1	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐	☒	☐
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.	☐	☒	☐
Insulation	C402.1.3	Envelope	Non-swinging opaque doors have R-4.75 insulation.	☐	☒	☐
Insulation	C402.2.2	Envelope	Skylight curbs are insulated to the level of roofs with insulation above deck or R-5.	☐	☒	☐
Insulation	C402.2.2	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.	☒	☐	☐
Air Leakage	C402.5	Envelope	Building envelope contains a continuous air barrier that has been tested and deemed to limit air leakage ≤ 0.40 cfm/ft ² .	☒	☐	☐
Air Leakage	C402.5.1	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.	☒	☐	☐
Air Leakage	C402.5.1.1	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.	☒	☐	☐
Air Leakage	C402.5.1.2.1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and material permeability ≤ 0.004 cfm/ft ² . Air barrier penetrations are sealed in an approved manner.	☒	☐	☐
Air Leakage	C402.5.1.2.2	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and average assembly air leakage ≤ 0.04 cfm/ft ² . Air barrier penetrations are sealed in an approved manner.	☒	☐	☐
Air Leakage	C402.5.2, C402.5.4	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☒	☐	☐
Air Leakage	C402.5.3	Envelope	Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope.	☐	☒	☐
Air Leakage	C402.5.5, C403.2.4.3	Envelope	Stair and elevator shaft vents have motorized dampers that automatically close.	☐	☒	☐
Air Leakage	C402.5.5, C403.2.4.3	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.	☒	☐	☐
Air Leakage	C402.5.6	Envelope	Weatherseals installed on all loading dock cargo doors.	☐	☒	☐

Air Leakage	C402.5.8	Envelope	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☒	☐	☐
HVAC	C403.2.1	Mechanical	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure	☒	☐	☐
SYSTEM_SPECIFIC	C403.2.10	Mechanical	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	☐	☒	☐
HVAC	C403.2.3	Mechanical	HVAC equipment efficiency verified.	☒	☐	☐
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).	☐	☒	☐
SYSTEM_SPECIFIC	C403.2.4.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☒	☐	☐
SYSTEM_SPECIFIC	C403.2.4.1.1	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐	☒	☐
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 Â°F deadband.	☒	☐	☐
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 Â°F deadband.	☒	☐	☐
HVAC	C403.2.4.1.3	Mechanical	Temperature controls have setpoint overlap restrictions.	☒	☐	☐
HVAC	C403.2.4.2.1, C403.2.4.2.2	Mechanical	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐	☒	☐
SYSTEM_SPECIFIC	C403.2.4.2.3	Mechanical	Systems include optimum start controls	☒	☐	☐
HVAC	C403.2.4.5, C403.2.4.6	Mechanical	Snow/ice melting system sensors for future connection to controls. Freeze protection systems have automatic controls installed.	☐	☒	☐
HVAC	C403.2.6.2	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐	☒	☐
HVAC	C403.2.9	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.	☒	☐	☐
SYSTEM_SPECIFIC	C403.2.9.1.3	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.1.2	Mechanical	VAV fans have static pressure sensors located so controller setpoint <=1.2 w.c..	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.2	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 rest controls to limit heating and cooling supply temperature to <=30 °F.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.2.3.3	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.4.5, C403.4.4.5.1-4	Mechanical	Zone controls can limit simultaneous heating and cooling and sequence heating and cooling to each zone.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.5	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.	☐	☒	☐
SYSTEM_SPECIFIC	C403.4.6	Mechanical	Hot gas bypass limited to: <=240 kBtu/h - 50% capacity, >240 kBtu/h - 25% capacity	☐	☒	☐
SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on non-circulating storage water tanks.	☐	☒	☐

SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	☐	☒	☐
SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	☐	☒	☐
SYSTEM_SPECIFIC	C404.6.1	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe.	☐	☒	☐
SYSTEM_SPECIFIC	C404.6.1, C404.6.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐	☒	☐
SYSTEM_SPECIFIC	C404.9.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	☐	☒	☐
SYSTEM_SPECIFIC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	☐	☒	☐
SYSTEM_SPECIFIC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	☐	☒	☐
SYSTEM_SPECIFIC	C404.9.3	Mechanical	Vapor retardant pool covers are provided for heated pools and permanently installed spas.	☐	☒	☐
Controls	C405.2.1	Interior Lighting	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐	☒	☐
Controls	C405.2.1	Interior Lighting	Occupancy sensors installed in required spaces.	☒	☐	☐
Controls	C405.2.1, C405.2.2.3	Interior Lighting	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☒	☐	☐
Controls	C405.2.2.1	Interior Lighting	Automatic controls to shut off all building lighting installed in all buildings.	☐	☒	☐
Controls	C405.2.3	Interior Lighting	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐	☒	☐
Controls	C405.2.3, C405.2.3.1, C405.2.3.2	Interior Lighting	Primary sidelighted areas are equipped with required lighting controls.	☐	☒	☐
Controls	C405.2.3, C405.2.3.1, C405.2.3.3	Interior Lighting	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐	☒	☐
Controls	C405.2.4	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	☒	☐	☐
Wattage	C405.2.4	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☒	☐	☐
Controls	C405.2.5	Exterior Lighting	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐	☒	☐
Wattage	C405.4.1	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.	☒	☐	☐
Mandatory Additional Eff	C406.4	Project	Enhanced digital lighting controls efficiency package: Interior lighting has following enhanced lighting controls in accordance with Section C405.2.2: Luminaires capable of continuous dimming and being addressed individually, <= 8 luminaires controlled in	☐	☒	☐
Mandatory Additional Eff	C406.6	Project	Dedicate outdoor air system efficiency package: Buildings with hydronic and/or multiple-zone HVAC systems are equipped with an independent ventilation system designed to provide >= 100-percent outdoor air to each individual occupied space, as specified by	☐	☒	☐

Mandatory Additional Eff	C406.7, C406.7.1	Project	Enhanced Service Water Heat System efficiency package. One of the following SWH system enhancements must satisfy 60 percent of hot water requirements, or 100 percent if the building otherwise complies with heat recovery per Section C403.4.5: Waste heat re	☐	☒	☐
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	☒	☐	☐
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	☒	☐	☐
Testing	C408.2.3.2	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☒	☐	☐
4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy						
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.	☒	☐	☐
Post Construction	C303.3, C408.2.5.3	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☒	☐	☐
Fenestration	C402.4.2.2	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.	☐	☒	☐
Post Construction	C408.2.1	Mechanical	Commissioning plan developed by registered design professional or approved agency.	☐	☒	☐
Post Construction	C408.2.3.1	Mechanical	HVAC equipment has been tested to ensure proper operation.	☒	☐	☐
Post Construction	C408.2.3.3	Mechanical	Economizers have been tested to ensure proper operation.	☒	☐	☐
Post Construction	C408.2.4	Mechanical	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐	☒	☐
Post Construction	C408.2.5.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☒	☐	☐
Post Construction	C408.2.5.1	Interior Lighting	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☒	☐	☐
Post Construction	C408.2.5.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems.	☐	☒	☐
Post Construction	C408.2.5.4	Mechanical	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐	☒	☐
Post Construction	C408.3	Interior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☒	☐	☐

Commerical Heat Gain and Heat Loss



Manufacturer: SMM
Destination: Lake City, FL

Plan No.: SMM 19662
MFR'S ID: 1578 - 1

Temperatures (Degree F):

Outside Summer (DB): OS := 94
Inside Summer: IS := 75
Outside Winter: OW := 32
Inside Winter: IW := 72
Design Gains @ 50% Rh: DG := 49
Daily Range: DR := 19

Occupant Content: OC := 16
Outside Air CFM/Occupant: OA := 10.3
Lightning Wattage:
Incandescent: IL := 120
Flourescent: FL := 1600
(*Does Not Include Ballast Load)

Glass Area (SF):	Gross Wall Area (SF):	U Values (BTU/hr*SF°F):
North: $N_{ww} := 18$	NW := 187	Glass: UG := .60
East: E := 18	EW := 480	Wall: UW := 0.077
South: $S_{ww} := 18$	SW := 187	
West: $W_{ww} := 18$	WW := 480	
Wood/Metal Door Area: WD := 60		Door: WU := 0.50
Glass/French Door Area: GD := 0		Door: GU := 1.10
Roof Area: $R_{ww} := 1400$		Roof: RU := 0.026
Floor Area: $F_{ww} := 1400$		Floor: FU := 0.053
Glass Shading Factor: SF := 0.59		
Equipment Load (BTU/SF): EL := 20		

Heating Gains (Cooling Loads in BTU/HR):

Sensible Heat Gains:

A. Solar Radiation Through Glass:

North: SRN := N·30·SF
East: SRE := E·44·SF
South: SRS := S·56·SF
West: SRW := W·158·SF

Total: SR := SRN + SRE + SRS + SRW SR = 3059

B. Transmission Gains:

1. Glass: GA := N + E + S + W GA = 72
TG := GA·UG·(OS - IS) TG = 821



Commerical Heat Gain and Heat Loss

2. Doors: $TWG := WD \cdot WU \cdot (OS - IS)$ $TWG = 570$

$TGD := GD \cdot GU \cdot (OS - IS)$ $TGD = 0$

3. Walls: Find Equivalent Temperature Difference (ETD)

Temperature Correction: $TC := OS - IS - 20$

Daily Range Correction: $DRC := 0.5 \cdot (20 - DR)$

$ETD := TC + DRC$ $ETD = -1$

North: $TWN := (NW - N) \cdot UW \cdot (ETD + 15)$

East: $TWE := (EW - E) \cdot UW \cdot (ETD + 36)$

South: $TWS := (SW - S) \cdot UW \cdot (ETD + 23)$

West: $TWW := (WW - W) \cdot UW \cdot (ETD + 17)$

Total: $TW := TWN + TWE + TWS + TWW$ $TW = 2331$

4. Roof: $TR := R \cdot RU \cdot (OS - IS)$ $TR = 692$

5. Floor: $FR := F \cdot FU \cdot (OS - IS)$ $FR = 1410$

Total Transmission Gains: $T_{\Sigma} := TG + TWG + TGD + TW + TR + FR$ $T = 5824$

C. Occupants: $SO := OC \cdot 245$ $SO = 3920$

D. Lights: $L_{\Sigma} := IL \cdot 3.4 + FL \cdot 4.1$ $L = 6968$

E. Ventilation: $SV := OC \cdot OA \cdot (OS - IS) \cdot 1.1$ $SV = 3444$

F. Ducts: $SD := (SR + T + SO + L + SV) \cdot 0.50$ $SD = 11607$

G. Equipment: $EQ := EL \cdot F$ $EQ = 28000$

Total Sensible Heat Gain: $SHG := SR + T + SO + L + SV + SD + EQ$ $SHG = 62822$

Latent Heat Gains:

A. Occupants: $LO := OC \cdot 155$ $LO = 2480$

B. Ventilation: $LV := OC \cdot OA \cdot DG \cdot 0.68$ $LV = 5491$

Total Latent Heat Gain: $LHG := LO + LV$ $LHG = 7971$

Total Heat Gain: $HG := SHG + LHG$ $HG = 70793 \text{ BTU/hr}$

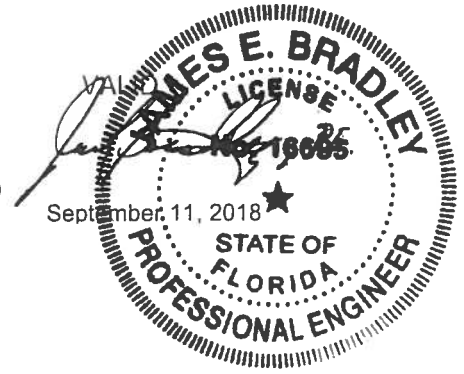
Heating Loss (Heating Loads in BTU/HR):

A. Transmission Loads:

1. Glass: $LTG := GA \cdot UG \cdot (IW - OW)$ $LTG = 1728$

2. Doors: $LTWD := WD \cdot WU \cdot (IW - OW)$ $LTWD = 1200$

$LTGD := GD \cdot GU \cdot (IW - OW)$ $LTGD = 0$



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Commerical Heat Gain and Heat Loss

3. Walls: $LTW := (NW + EW + SW + WW - GA) \cdot UW \cdot (IW - OW)$ $LTW = 3887$

4. Roof: $LR := R \cdot RU \cdot (IW - OW)$ $LR = 1456$

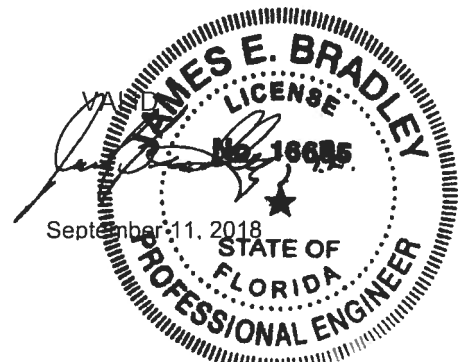
5. Floor: $LF := F \cdot FU \cdot (IW - OW)$ $LF = 2968$

Total Transmission Loss: $LT := LTG + LTWD + LTGD + LTW + LR + LF$ $LT = 11239$

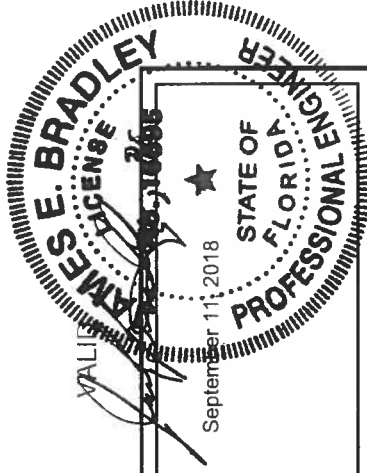
B. Ducts: $LD := LT \cdot 0.05$ $LD = 562$

C. Ventilation: $LV := OC \cdot OA \cdot (IW - OW) \cdot 1.1$ $LV = 7251$

Total Heat Loss: $HL := LT + LD + LV$ $HL = 19052 \text{ BTU/hr}$



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EnergyGauge Summit® v6.00

INPUT DATA REPORT

Project Information

Project Name: SOUTHEAST MODULAR

Project Title: SMM 19662

Address: Enter Address here
Enter Address here

State: FL

Zip: 0

Owner: SOUTHEAST

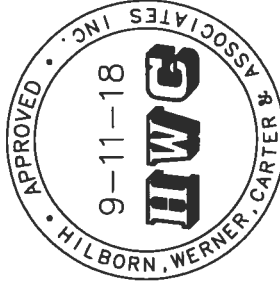
Orientation: 270 Deg Clockwise, Walls & Windows will

Building Type: Office
bc rotated accordingly

Building Classification: New Finished building

No. of Stories: 1

Gross Area: 1259 SF



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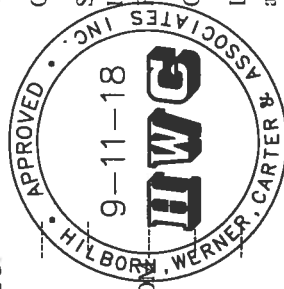
Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]
1	ZONE 1	Zone 1	CONDITIONED	1259.0	1	1259.0

Spaces

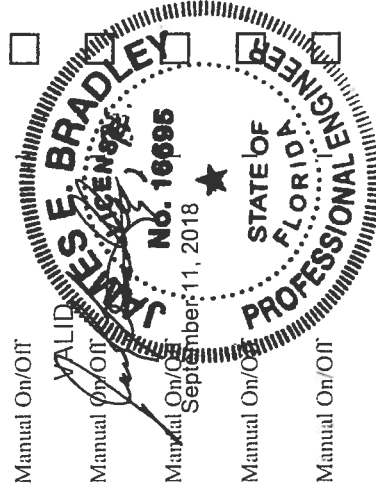
No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multi plier	Total Area [sf]	Total Volume [cf]
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In Zone: ZONE 1										☐
1	JANITOR	----	Storage & Warehouse - Inactive Storage	8.00	4.00	8.00	1	32.0	256.0	☐
2	OFFICE 1-2	----	Office - Enclosed	12.00	11.00	8.00	2	264.0	2112.0	☐
3	RESTROOM	----	Toilet and Washroom	7.08	6.00	8.00	1	42.5	339.8	☐
4	LOCKER ROOM	----	Locker Room	11.17	8.00	8.00	1	89.4	714.9	☐
5	SHOWER ROOM	----	Toilet and Washroom	5.33	8.00	8.00	1	42.6	341.1	☐
6	OFFICE 3-4	----	Office - Enclosed	137.00	1.00	8.00	2	274.0	2192.0	☐
7	CLOSET	----	Storage & Warehouse - Inactive Storage	5.00	4.25	8.00	1	21.3	170.0	☐
8	BREAK ROOM	----	Food Service - Kitchen	10.33	11.00	8.00	1	113.6	909.0	☐
9	OFFICE 5	----	Office - Enclosed	11.00	10.33	8.00	1	113.6	909.0	☐
10	FOYER	----	Lobby (General) - Reception and Waiting	6.00	6.00	8.00	1	36.0	288.0	☐
11	CORRIDOR	----	Office - Enclosed	230.00	1.00	8.00	1	230.0	1840.0	☐



Lighting

No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No. of Ctrl pts
In Zone: ZONE 1							
In Space: JANITOR							
1	Incandescent	General Lighting	1	60	60	Manual On/Off	☐
In Space: OFFICE 1-2							
1	Suspended Fluorescent	General Lighting	2	64	128	Manual On/Off	☐
In Space: RESTROOM							
1	Suspended Fluorescent	General Lighting	1	64	64	Manual On/Off	☐
In Space: LOCKER ROOM							
1	Suspended Fluorescent	General Lighting	2	64	128	Manual On/Off	☐
In Space: SHOWER ROOM							
1	Suspended Fluorescent	General Lighting	1	64	64	Manual On/Off	☐
In Space: OFFICE 3-4							



1	Suspended Fluorescent	General Lighting	2	64	128	Manual On/Off	1	☐
In Space: CLOSET								
1	Incandescent	General Lighting	1	60	60	Manual On/Off	1	☐
In Space: BREAK ROOM								
1	Suspended Fluorescent	General Lighting	2	64	128	Manual On/Off	1	☐
In Space: OFFICE 5								
1	Suspended Fluorescent	General Lighting	2	64	128	Manual On/Off	1	☐
In Space: FOYER								
1	Suspended Fluorescent	General Lighting	1	64	64	Manual On/Off	1	☐
In Space: CORRIDOR								
1	Suspended Fluorescent	General Lighting	3	64	192	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.s.f.F/Btu]
In Zone: ZONE 1											
1	----	2x4x16" oc, R13 Batt, 0.5 in. gyp	60.00	8.00	1	480.0	North	0.0486	0.834	6.20	20.6
2	----	2x4x16" oc, R13 Batt, 0.5 in. gyp	60.00	8.00	1	480.0	South	0.0486	0.834	6.20	20.6
3	----	2x4x16" oc, R13 Batt, 0.5 in. gyp	23.33	8.00	1	186.6	West	0.0486	0.834	6.20	20.6
4	----	2x4x16" oc, R13 Batt, 0.5 in. gyp	23.33	8.00	1	186.6	East	0.0486	0.834	6.20	20.6

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]
----	-------------	-------------	--------	-----------------	------	---------	--------	----------------

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In Zone: ZONE 1												
In Wall:	EAST											
	1	----	North	No	0.6000	0.59	0.64	2.00	4.50	2	18.0	☐
In Wall:	NORTH											
	1	----	West	No	0.6000	0.59	0.64	2.00	4.50	2	18.0	☐
In Wall:	SOUTH											
	1	----	East	No	0.6000	0.59	0.64	2.00	4.50	2	18.0	☐
In Wall:	WEST											
	1	----	South	No	0.6000	0.59	0.64	2.00	4.50	2	18.0	☐

Doors

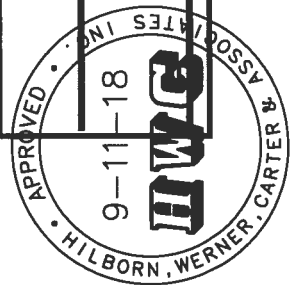
No	Description	Type	Shaded?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Dens. [lb/cf]	Heat Cap. [Btu/sf. F]	R-Value [h.sf.F/Btu]
In Zone: ZONE 1											
In Wall:	EAST										
1	----	Polystyrene core (18 ga steel) 1	No	3.00	6.67	1	20.0	0.4982	0.00	0.00	2.01
											☐
In Wall:	WEST										
1	----	Polystyrene core (18 ga steel) 1	No	3.00	6.67	2	20.0	0.4982	0.00	0.00	2.01
											☐

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/cu. ft]	R-Value [in. R-Value]
In Zone: ZONE 1											
1	----	Trusses @ 24 O.C.	24.33	62.00	1	1508.5	0.00	0.0233			

Skylights

No	Description	Type	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multi plier
In Zone: ZONE 1								
	1	----						



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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.s.f.F/Btu]
In Zone:	ZONE 1	FLOOR	23.33	60.00	1	1399.8	0.0377	6.16	23.04	26.53
1	----									

Systems									
ZONE 1	ZONE 1	Single Package Vertical A/C							No. Of Units 2
Component	Category	Capacity	Efficiency	IPLV					
1	Cooling System	36000.00	13.00						☐
2	Heating System	34100.00	1.00						☐
3	Air Handling System -Supply	1300.00	0.30						☐
4	Air Distribution System (Sup)		6.00						☐
5	Air Distribution System (Ret)		6.00						☐

Plant				
Equipment	Category	Size	Inst.No	Eff

Water Heaters				
W-Heater Description	Capacity Cap.Unit	I/P Rt.	Efficiency	
1 Electric water heater	40 [Gal]	6 [kW]	1.0000 [E]	☐

Ext-Lighting					
Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type Wattage [W]
1 Ext Light 1	Main entries	1	60	3.00	Photo Sensor control 60.00
2 Ext Light 2	Other (doors) than main entries	1	60	3.00	Photo Sensor control 60.00
3 Ext Light 3	Other (doors) than main entries	1	60	3.00	Photo Sensor control 60.00

Piping				
No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in] Is Runout? Thickness [in]

Fenestration Used				
Name	Glass Type	No. of Panels	Glass Conductance [Btu/h.sf.F]	SHGC VLT
ASHULDblCrW d-Vy-Fg frm	User Defined	2	0.6000	0.5900 0.6400

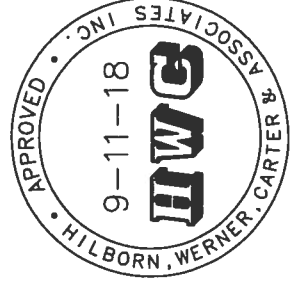
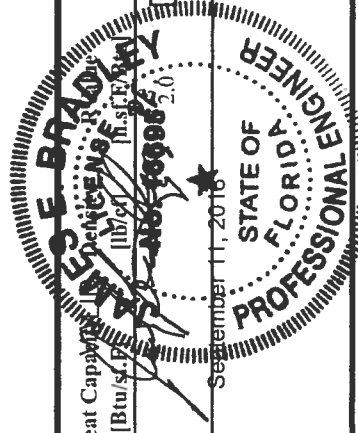
Materials Used				
Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu] Thickness [ft] Conductivity [Btu/h.ft.F]
266	Matl266	2x4@16" oc + R13 Batt	No	8.3343 0.2917 0.0350

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284	Mat1284	Polystyrene core (18 ga steel)	Yes	2.0071						
407	Mat1407	R-19 Generic Insulation	No	19.0000	0.4147	0.0218	0.30	0.2000		
1003	ApLbMat1003	2X TRUSS	No	5.0000	0.3300	0.0660	43.00	0.2600		
1004	ApLbMat1004	2x6	No	7.5758	0.5000	0.0660	43.00	0.2900		
1005	ApLbMat1005	R-13 Generic Insulation	No	13.0000	0.2837	0.0218	0.30	0.2000		
1008	ApLbMat1008	R-38 Generic Insulation	No	38.0000	0.8294	0.0218	0.30	0.2000		

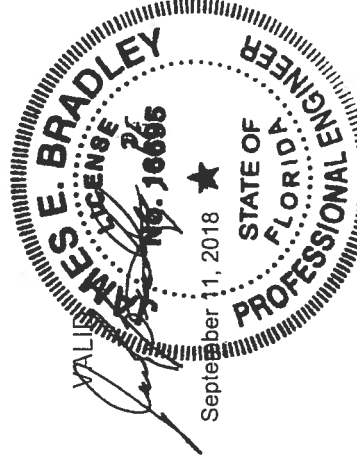
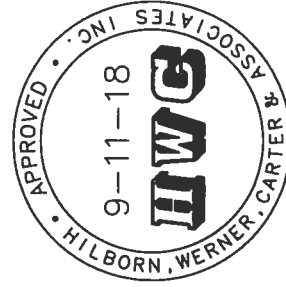
Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	R Value [h.sf.F/Btu]															
1009	2x4x16" oc, R13Batt, 0.5 in. gyp	No	No	0.05	0.83	6.20	20.6															
<table><tr><th>Layer</th><th>Material No.</th><th>Material</th><th>Thickness [ft]</th><th>Framing Factor</th></tr><tr><td>1</td><td>266</td><td>2x4@16" oc + R13 Batt</td><td>0.2917</td><td>0.100</td></tr><tr><td>2</td><td>1005</td><td>R-13 Generic Insulation</td><td>0.2837</td><td>0.000</td></tr></table>								Layer	Material No.	Material	Thickness [ft]	Framing Factor	1	266	2x4@16" oc + R13 Batt	0.2917	0.100	2	1005	R-13 Generic Insulation	0.2837	0.000
Layer	Material No.	Material	Thickness [ft]	Framing Factor																		
1	266	2x4@16" oc + R13 Batt	0.2917	0.100																		
2	1005	R-13 Generic Insulation	0.2837	0.000																		
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	R Value [h.sf.F/Btu]															
1033	Polystyrene core (18 ga steel) I	No	Yes	0.50																		
<table><tr><th>Layer</th><th>Material No.</th><th>Material</th><th>Thickness [ft]</th><th>Framing Factor</th></tr><tr><td>1</td><td>284</td><td>Polystyrene core (18 ga steel) I</td><td></td><td>0.000</td></tr></table>								Layer	Material No.	Material	Thickness [ft]	Framing Factor	1	284	Polystyrene core (18 ga steel) I		0.000					
Layer	Material No.	Material	Thickness [ft]	Framing Factor																		
1	284	Polystyrene core (18 ga steel) I		0.000																		



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No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.s.f.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.s.f.F/Btu]
1052	Trusses@ 24 O.C.	No	No	0.02	3.73	12.27	43.0
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	1008	R-38 Generic Insulation	0.8294	0.000			
2	1003	2X TRUSS	0.3300	0.060			
No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.s.f.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.s.f.F/Btu]
1054	FLOOR	No	No	0.04	6.16	23.04	26.5
Layer	Material No.	Material	Thickness [ft]	Framing Factor			
1	1004	2x6	0.5000	0.100			
2	407	R-19 Generic Insulation	0.4147	0.000			



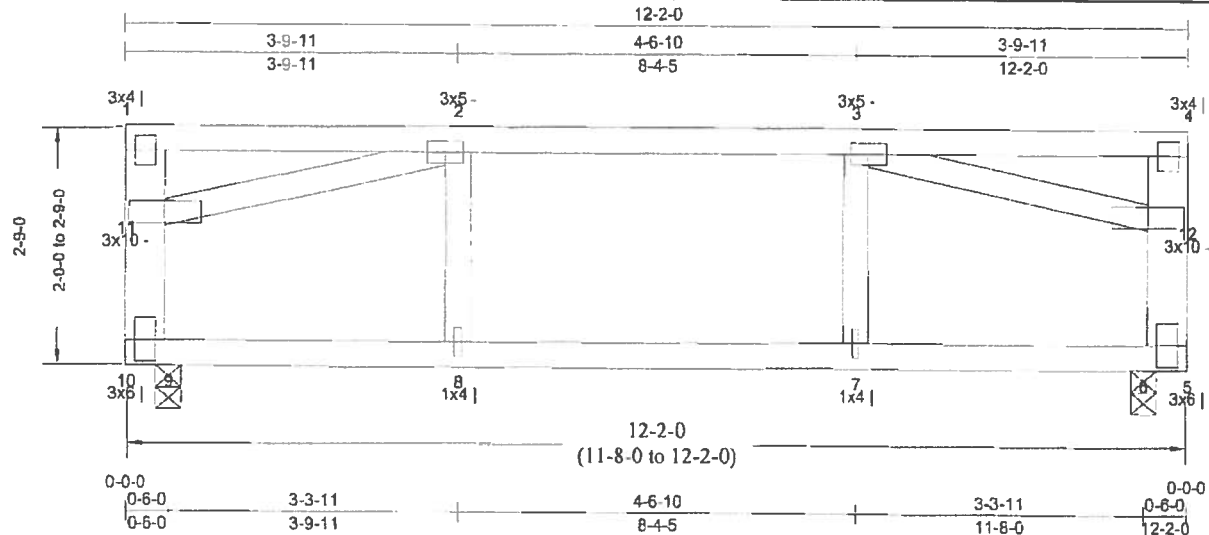
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Job#1095541

Southwest GA Wholesale
75 Industrial Drive
Ellaville, GA 31806

Truss SW-FT127100
JobName: Southeast
Modular Date: 09/07/18
15 51 43 Page 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	WGT PLY
12-2-0	0/12	1	0-0-0	0-0-0	0-0-0	0-0-0	1	61 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Spacing 1-4-0	Spacing 2-0-0	General	CSI	Deflection	L/	(loc)	Allowed
Loading (psf)	Loading (psf)	Bldg Code : IBC 2015/	TC : 0.52 (1-2)	Vert TL: 0.2 in	L / 644	(7-8)	L / 240
TCLL : 50	TCLL : 30	TP1 1-2014	BC : 0.53 (5-7)	Vert LL: 0.14 in	L / 920	(7-8)	L / 360
Snow : 38.5	Snow : 23.1	Rep Mbr : No	Web : 0.45 (12-5)	Cant / OH TL 0.01 in UP2L / 600		5	2L / 480
TCDL : 10	TCDL : 10	Lumber D.O.L. 115 %		Cant / OH LL 0.01 in UP2L / 770		5	2L / 480
BCLL : 0	BCLL : 0			Horz TL: 0.01 in		6	
BCDL : 10	BCDL : 10						

Reaction

JT	Brq Combo	Brq Width	Rqd Brq Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz.
9	1	3.5 in	1.50 in	568 lbs		-279 lbs	-309 lbs	-309 lbs	-145 lbs
6	1	3.5 in	1.50 in	568 lbs		-279 lbs	-251 lbs	-279 lbs	

Material

TC: SYP #2 2 x 4
BC: SYP #2 2 x 4
Web: SYP #2 2 x 4 except:
SYP 2400/2.0 2 x 6: 1-10, 4-5

Bracing

TC: Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads

- 1) This truss has been designed for the effects of balanced (38.5 psf) sloped roof snow loads in accordance with ASCE7 - 10 with the following user defined input: 50 psf GSI, Terrain C, Exposure (C_e = 1.0), Risk Category II (I = 1.00), Thermal (C_t = 1.10), DOL = 1.15. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
- 2) This truss has not been designed for the effects of unbalanced snow loads.
- 3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 10 with the following user defined input: 175 mph (Factored), Exposure C, Enclosed, Gable/Hip, Risk Category II, h=B=L=15 ft, Not End Zone Truss, Both end webs considered. DOL = 1.60
- 4) Minimum storage attic loading has not been applied in accordance with IBC 1607.1
- 5) In accordance with IBC 1607.1, minimum BCLL's do not apply.

Member Forces

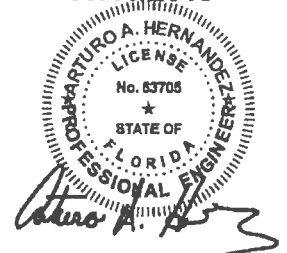
Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.519	855 lbs	(-438 lbs)	2-3	0.415	-498 lbs		3-4	0.519	855 lbs	(-437 lbs)
BC	5-7	0.532	498 lbs	(-269 lbs)	7-8	0.434	498 lbs	(-269 lbs)	8-10	0.532	498 lbs	(-269 lbs)
Web	11-10	0.451	-482 lbs		3-12	0.331	-1,396 lbs					
	2-11	0.331	-1,396 lbs		12-5	0.451	-482 lbs					

Notes

- 1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
- 2) The fabrication tolerance for this roof truss is 20 % (C_q = 0.80).
- 3) Provide adequate drainage to prevent ponding.
- 4) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
- 5) At least one web of this truss has been designed with a panel point in the web. All panel points on such webs shall be braced laterally perpendicular to the plane of the truss.
- 6) Lateral braces shall be installed within 6" of each web panel point.
- 7) A creep factor of 1.00 has been applied for this truss analysis.
- 8) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
- 9) Listed wind uplift reactions based on MWFRS & C&C loading.

09/10/2018



ALL PERSONS FABRICATING, HANDLING, ERECTING OR INSTALLING ANY TRUSS BASED UPON THIS TRUSS DESIGN DRAWING ARE INSTRUCTED TO REFER TO ALL OF THE INSTRUCTIONS, LIMITATIONS AND QUALIFICATIONS SET FORTH IN THE EAGLE METAL PRODUCTS DESIGN NOTES ISSUED WITH THIS DESIGN AND AVAILABLE FROM EAGLE UPON REQUEST. DESIGN VALID ONLY WHEN EAGLE METAL CONNECTORS ARE USED.

TrueBuild® Truss Software v 5.6.314
Eagle Metal Products



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Troy For some reason I could not
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Penny Cendro