

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Rodney Wade- Speicher
 Street: Rodney Wade- Speicher
 City, State, Zip: Ft White , FL ,
 Owner: Rodney Wade- Speicher
 Design Location: FL, Gainesville

Builder Name: Spann's Heating and Air INC.
 Permit Office:
 Permit Number:
 Jurisdiction:
 County: columbia (Florida Climate Zone 2)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Detached
3. Number of units, if multiple family	1
4. Number of Bedrooms	3
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1700
Conditioned floor area below grade (ft²)	0
7. Windows(160.0 sqft.)	Description Area
a. U-Factor:	Dbl, U=0.40 160.00 ft²
SHGC:	SHGC=0.20
b. U-Factor:	N/A ft²
SHGC:	
c. U-Factor:	N/A ft²
SHGC:	
Area Weighted Average Overhang Depth:	1.000 ft.
Area Weighted Average SHGC:	0.200
8. Skylights	Area
c. U-Factor:(AVG)	N/A ft²
SHGC(AVG):	N/A
9. Floor Types (1699.3 sqft.)	Insulation Area
a. Slab-On-Grade Edge Insulation	R=0.0 1699.30 ft²
b. N/A	R= ft²
c. N/A	R= ft²

10. Wall Type(1917.0 sqft.)	Insulation Area
a. Frame - Wood, Exterior	R=13.0 1548.00 ft²
b. Interior Frame - Wood, Interior	R=13.0 369.00 ft²
c. N/A	R= ft²
d. N/A	R= ft²
11. Ceiling Types (1700.0 sqft.)	Insulation Area
a. Under Attic (Vented)	R=38.0 1700.00 ft²
b. N/A	R= ft²
c. N/A	R= ft²
12. Ducts	R ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6 120
13. Cooling systems	kBtu/hr Efficiency
a. Central Unit	36.0 SEER:14.00
14. Heating systems	kBtu/hr Efficiency
a. Electric Heat Pump	33.0 HSPF:8.20
15. Hot water systems	
a. Electric	Cap: 40 gallons EF: 0.960
b. Conservation features	None
16. Credits	None

Glass/Floor Area: 0.094

Total Proposed Modified Loads: 42.27

Total Baseline Loads: 45.17

PASS

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

PREPARED BY: TrustDATE: 6-16-2021

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: [Signature]DATE: 06/16/21

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.



BUILDING OFFICIAL: _____

DATE: _____

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).
- Compliance with a proposed duct leakage Qn requires a Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.010 Qn for whole house.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

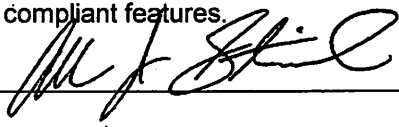
ESTIMATED ENERGY PERFORMANCE INDEX* = 94

The lower the EnergyPerformance Index, the more efficient the home.

Rodney Wade- Speicher, Ft White, FL,

1. New construction or existing	New (From Plans)		10. Wall Type and Insulation	Insulation	Area
2. Single family or multiple family	Detached		a. Frame - Wood, Exterior	R=13.0	1548.00 ft ²
3. Number of units, if multiple family	1		b. Interior Frame - Wood, Interior	R=13.0	369.00 ft ²
4. Number of Bedrooms	3		c. N/A	R=	ft ²
5. Is this a worst case?	No		d. N/A	R=	ft ²
6. Conditioned floor area (ft ²)	1700		11. Ceiling Type and insulation level	Insulation	Area
7. Windows**	Description	Area	a. Under Attic (Vented)	R=38.0	1700.00 ft ²
a. U-Factor:	Dbl, U=0.40	160.00 ft ²	b. N/A	R=	ft ²
SHGC:	SHGC=0.20		c. N/A	R=	ft ²
b. U-Factor:	N/A	ft ²	12. Ducts, location & insulation level	R	ft ²
SHGC:			a. Sup: Attic, Ret: Attic, AH: Garage	6	120
c. U-Factor:	N/A	ft ²	13. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	36.0	SEER:14.00
d. U-Factor:	N/A	ft ²	14. Heating systems	kBtu/hr	Efficiency
SHGC:			a. Electric Heat Pump	33.0	HSPF:8.20
Area Weighted Average Overhang Depth:	1.000 ft.		15. Hot water systems		
Area Weighted Average SHGC:	0.200		a. Electric	Cap: 40 gallons	
8. Skylights	Description	Area		EF: 0.96	
a. U-Factor(AVG):	N/A	ft ²	b. Conservation features		
SHGC(AVG):	N/A		None		
9. Floor Types	Insulation	Area	Credits (Performance method)		None
a. Slab-On-Grade Edge Insulation	R=0.0	1699.30 ft ²			
b. N/A	R=	ft ²			
c. N/A	R=	ft ²			

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature:  Date: 06/16/21
Address of New Home: _____ City/FL Zip: _____



*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Rodney Wade- Speicher	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1700	Lot #	
Owner Name:	Rodney Wade- Speicher	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Spann's Heating and Air INC.	Rotate Angle:	0	Street:	Rodney Wade- Speiche
Permit Office:		Cross Ventilation:	No	County:	columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Ft White ,
Family Type:	Detached				FL ,
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	Design Temp 97.5 % 2.5 %		Int Design Temp Winter Summer		Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Entire House	1700	17520

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Master Bath	94	846	No	0		1	Yes	Yes	Yes
2	Master Bedroom	247	2223	No	2	1	1	Yes	Yes	Yes
3	Closet	88	792	No	0		1	Yes	Yes	Yes
4	Laundry	80	720	No	0		1	No	Yes	Yes
5	Kitchen	336	4032	No	2		1	Yes	Yes	Yes
6	Great Room	404	4848	No	2		1	Yes	Yes	Yes
7	Bedroom 2	202	1818	No	2	1	1	Yes	Yes	Yes
8	Bath	54	486	No	0		1	Yes	Yes	Yes
9	Bedroom 3	195	1755	No	2	1	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Master Bath	21 ft	0	94.3 ft²	----	0	1	0
_____	2	Slab-On-Grade Edge Insulatio	Master Bedroom	17 ft	0	246.5 ft²	----	0	1	0
_____	3	Slab-On-Grade Edge Insulatio	Closet	11 ft	0	88 ft²	----	0	1	0
_____	4	Slab-On-Grade Edge Insulatio	Laundry	1 ft	0	80 ft²	----	0	1	0
_____	5	Slab-On-Grade Edge Insulatio	Kitchen	21 ft	0	336 ft²	----	0	1	0
_____	6	Slab-On-Grade Edge Insulatio	Great Room	21 ft	0	404 ft²	----	0	1	0
_____	7	Slab-On-Grade Edge Insulatio	Bedroom 2	28.5 ft	0	201.5 ft²	----	0	1	0

INPUT SUMMARY CHECKLIST REPORT

FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
✓	8	Slab-On-Grade Edge Insulatio	Bath	6 ft	0	54 ft²	----	0	1	0
✓	9	Slab-On-Grade Edge Insulatio	Bedroom 3	32.5 ft	0	195 ft²	----	0	1	0

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or Shed	Metal	1791 ft²	284 ft²	Unfinishe	N	0.6	No	0.4	No	0	18.43

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
✓	1	Full attic	Vented	300	1699 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	Master Bath	38	Blown	94 ft²	0.1	Wood
✓	2	Under Attic (Vented)	Master Bedroom	38	Blown	247 ft²	0.1	Wood
✓	3	Under Attic (Vented)	Closet	38	Blown	88 ft²	0.1	Wood
✓	4	Under Attic (Vented)	Laundry	38	Blown	80 ft²	0.1	Wood
✓	5	Under Attic (Vented)	Kitchen	38	Blown	336 ft²	0.1	Wood
✓	6	Under Attic (Vented)	Great Room	38	Blown	404 ft²	0.1	Wood
✓	7	Under Attic (Vented)	Bedroom 2	38	Blown	202 ft²	0.1	Wood
✓	8	Under Attic (Vented)	Bath	38	Blown	54 ft²	0.1	Wood
✓	9	Under Attic (Vented)	Bedroom 3	38	Blown	195 ft²	0.1	Wood

WALLS

✓	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
✓	1	N	Exterior	Frame - Wood	Master Bath	13	6	6	9	0	58.5 ft²	0	0.25	0.8	0
✓	2	W	Exterior	Frame - Wood	Master Bath	13	14	6	9	0	130.5 ft²	0	0.25	0.8	0
✓	3	N	Exterior	Frame - Wood	Master Bedro	13	17	0	9	0	153.0 ft²	0	0.25	0.8	0
✓	4	W	Exterior	Frame - Wood	Closet	13	11	0	9	0	99.0 ft²	0	0.25	0.8	0
✓	5	S	Master B	Interior Frame - Wood	Closet	13	8	0	9	0	72.0 ft²	0	0.25	0.8	0
✓	6	E	Master B	Interior Frame - Wood	Closet	13	3	0	9	0	27.0 ft²	0	0.25	0.8	0
✓	7	S	Master B	Interior Frame - Wood	Laundry	13	10	0	9	0	90.0 ft²	0	0.25	0.8	0
✓	8	N	Exterior	Frame - Wood	Kitchen	13	21	0	12	0	252.0 ft²	0	0.25	0.8	0
✓	9	S	Exterior	Frame - Wood	Great Room	13	21	0	12	0	252.0 ft²	0	0.25	0.8	0
✓	10	S	Master B	Interior Frame - Wood	Great Room	13	5	6	12	0	66.0 ft²	0	0.25	0.8	0
✓	11	W	Master B	Interior Frame - Wood	Great Room	13	9	6	12	0	114.0 ft²	0	0.25	0.8	0
✓	12	N	Exterior	Frame - Wood	Bedroom 2	13	13	0	9	0	117.0 ft²	0	0.25	0.8	0
✓	13	E	Exterior	Frame - Wood	Bedroom 2	13	15	6	9	0	139.5 ft²	0	0.25	0.8	0
✓	14	E	Exterior	Frame - Wood	Bath	13	6	0	9	0	54.0 ft²	0	0.25	0.8	0
✓	15	E	Exterior	Frame - Wood	Bedroom 3	13	15	0	9	0	135.0 ft²	0	0.25	0.8	0

INPUT SUMMARY CHECKLIST REPORT

WALLS

✓	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor	Below Grade%
✓	16	S	Exterior	Frame - Wood	Bedroom 3	13	13	0	9	0	117.0 ft²	0	0.25	0.8	0
✓	17	W	Exterior	Frame - Wood	Bedroom 3	13	4	6	9	0	40.5 ft²	0	0.25	0.8	0

DOORS

✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
✓	1	N	Insulated	Kitchen	None	.4	6		7		42 ft²
✓	2	S	Insulated	Great Room	None	.4	3		7		21 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
✓	1	W	2	Vinyl	Double (Clear)	Yes	0.4	0.2	N	10.0 ft²	1 ft 0 in	1 ft 0 in	None	None
✓	2	N	3	Vinyl	Double (Clear)	Yes	0.4	0.2	N	30.0 ft²	1 ft 0 in	1 ft 0 in	None	None
✓	3	N	8	Vinyl	Double (Clear)	Yes	0.4	0.2	N	15.0 ft²	1 ft 0 in	1 ft 0 in	None	None
✓	4	S	9	Vinyl	Double (Clear)	Yes	0.4	0.2	N	30.0 ft²	1 ft 0 in	1 ft 0 in	None	None
✓	5	N	12	Vinyl	Double (Clear)	Yes	0.4	0.2	N	30.0 ft²	1 ft 0 in	1 ft 0 in	None	None
✓	6	E	14	Vinyl	Double (Clear)	Yes	0.4	0.2	N	15.0 ft²	1 ft 0 in	1 ft 0 in	None	None
✓	7	S	16	Vinyl	Double (Clear)	Yes	0.4	0.2	N	30.0 ft²	1 ft 0 in	1 ft 0 in	None	None

GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
✓	1	382.8 ft²	382.8 ft²	64 ft	9 ft	13

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000458	2044	112.14	210.53	.1518	7

HEATING SYSTEM

✓	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump/	Split	Singl	HSPF:8.2	33 kBtu/hr	1	sys#1

COOLING SYSTEM

✓	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit/	Split	Singl	SEER: 14	36 kBtu/hr	1080 cfm	0.7	1	sys#1

INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Garage	0.96	40 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

✓	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	None	None				ft²	

DUCTS

✓	#	Supply Location	R-Value	Area	Return Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
✓	1	Attic	6	120 ft²	Attic	120 ft²	Proposed Qn	Garage	— cfm	17.0 cfm	0.01	0.50	1	1

TEMPERATURES

Programable Thermostat: N

Ceiling Fans:

Cooling	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☒	Dec
Heating	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☒	Dec
Venting	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☒	Dec

Thermostat Schedule: HERS 2006 Reference

Hours

Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	80	80	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	80	80	78	78	78	78	78	78	78	78
Heating (WD)	AM	65	65	65	65	65	65	65	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
Heating (WEH)	AM	65	65	65	65	65	65	65	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.3	Master Bath
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Master Bedroom
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Closet
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Laundry
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Kitchen
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Great Room
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Bedroom 2
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Bath
Default(8 lbs/sq.ft.)	ft²	ft	0.3	Bedroom 3



Load Short Form
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Speicher
Date: Jun 15, 2021
By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Speicher

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	65	85		
Moisture difference (gr/lb)	49	0		

HEATING EQUIPMENT

Make Comfortmaker
Trade 14 SEER N SERIES R410A HP
Model N4H436GKG21
AHRI ref
Efficiency 8.2 HSPF
Heating input
Heating output 33800 Btuh @ 47°F
Temperature rise 28 °F
Actual air flow 1100 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0.70 in H2O
Space thermostat
Capacity balance point = 27 °F

Backup: n/a n/a

Input = 7 kW, Output = 24741 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Comfortmaker
Trade 14 SEER N SERIES R410A HP
Cond N4H436GKG21
Coil FEM4X3600BL
AHRI ref
Efficiency 11.5 EER, 14 SEER
Sensible cooling 23100 Btuh
Latent cooling 9900 Btuh
Total cooling 33000 Btuh
Actual air flow 1100 cfm
Air flow factor 0.047 cfm/Btuh
Static pressure 0.70 in H2O
Load sensible heat ratio 0.86

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Bath	94	2774	1789	118	85
Master Bedroom	247	2778	2632	118	124
Closet	88	1424	597	61	28
Laundry	80	99	889	4	42
Kitchen	336	4671	5295	199	250
Great Room	404	4467	4747	190	224
Bedroom 2	202	4097	2981	174	141
Bath	54	1004	1195	43	56
Bedroom 3	195	4567	3154	194	149

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Entire House	d	1699	25881	23279	1100	1100
Other equip loads			0	0		
Equip. @ 0.97 RSM				22557		
Latent cooling				3847		
TOTALS		1699	25881	26404	1100	1100

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2019 19.0.15 RSU08917

2021-Jun-16 08:30:48

Page 2

...ments\Wrightsoft HVAC\Rodney Wade- Speicher.rup Calc = MJ8 Front Door faces: N



Project Summary

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher
Date: Jun 15, 2021
By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Speicher

Notes:

Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	85 %
Moisture difference	0 gr/lb

Heating Summary

Structure	19914 Btuh
Ducts	5966 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	25881 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft ²)	1699	1699
Volume (ft ³)	17513	17513
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	111	58

Heating Equipment Summary

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Model	N4H436GKG21
AHRI ref	
Efficiency	8.2 HSPF
Heating input	
Heating output	33800 Btuh @ 47°F
Temperature rise	28 °F
Actual air flow	1100 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.70 in H2O
Space thermostat	
Capacity balance point = 27 °F	
Backup: n/a n/a	
Input = 7 kW, Output = 24741 Btuh, 100 AFUE	

Sensible Cooling Equipment Load Sizing

Structure	15792 Btuh
Ducts	7486 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	22557 Btuh

Latent Cooling Equipment Load Sizing

Structure	2000 Btuh
Ducts	1847 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	3847 Btuh

Equipment Total Load (Sen+Lat)	26404 Btuh
Req. total capacity at 0.70 SHR	2.7 ton

Cooling Equipment Summary

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Cond	N4H436GKG21
Coil	FEM4X3600BL
AHRI ref	
Efficiency	11.5 EER, 14 SEER
Sensible cooling	23100 Btuh
Latent cooling	9900 Btuh
Total cooling	33000 Btuh
Actual air flow	1100 cfm
Air flow factor	0.047 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.86

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2019 19.0.15 RSU08917

...ments\Wrightsoft HVAC\Rodney Wade- Speicher.rup Calc = MJ8 Front Door faces: N

2021-Jun-16 08:30:48

Page 1

Right-J® Worksheet

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher

Date: Jun 15, 2021

By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name					Entire House					Master Bath				
2	Exposed wall					158.0 ft					21.0 ft				
3	Room height					10.3 ft					9.0 ft				
4	Room dimensions					d					6.5 x 14.5 ft				
5	Room area					1699.3 ft²					94.3 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0sw	0.091	n	3.33	2.22	581	464	1544	1027	59	59	195	130	
11	G	1D-c2ov	0.400	n	14.64	10.92	45	0	659	491	0	0	0	0	
	G	1D-c2ov	0.400	n	14.64	10.92	30	0	439	328	0	0	0	0	
	D	11J0	0.600	n	21.96	17.61	42	42	922	740	0	0	0	0	
	W	12C-0sw	0.091	e	3.33	2.22	329	314	1044	695	0	0	0	0	
	G	1D-c2ov	0.400	e	14.64	25.95	15	0	220	389	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	369	288	959	638	0	0	0	0	
	G	1D-c2ov	0.400	s	14.64	11.08	60	53	878	665	0	0	0	0	
	D	11J0	0.600	s	21.96	17.61	21	21	461	370	0	0	0	0	
	W	12C-0sw	0.091	w	3.33	2.22	270	260	866	576	131	121	401	267	
	G	1D-c2ov	0.400	w	14.64	25.95	10	0	146	260	10	0	146	260	
	C	16B-38md	0.026	-	0.95	1.37	1699	1699	1617	2335	94	94	90	130	
F	22A-tpl	0.989	-	36.20	0.00	1699	158	5719	0	94	21	760	0		
6	c) AED excursion								0				96		
	Envelope loss/gain							15475	8513			1592	882		
12	a) Infiltration b) Room ventilation							4439 0	1079 0			542 0	132 0		
13	Internal gains: Occupants @ 230 Appliances/other					10			2300 3900	0			0 200		
	Subtotal (lines 6 to 13)							19914	15792			2134	1214		
14	Less external load							0	0			0	0		
	Less transfer							0	0			0	0		
	Redistribution							0	0			0	0		
15	Subtotal							19914	15792			2134	1214		
	Duct loads					30%	47%	5966	7486	30%	47%	639	575		
	Total room load							25881	23279			2774	1789		
	Air required (cfm)							1100	1100			118	85		

Right-J® Worksheet

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher

Date: Jun 15, 2021

By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name					Master Bedroom					Closet				
2	Exposed wall					17.0 ft					11.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					17.0 x 14.5 ft					8.0 x 11.0 ft				
5	Room area					246.5 ft²					88.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0sw	0.091	n	3.33	2.22	153	123	410	273	0	0	0	0	
11	G	1D-c2ov	0.400	n	14.64	10.92	30	0	439	328	0	0	0	0	
	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0	
	D	11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0	
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	99	99	330	219	
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0	
	C	16B-38md	0.026	-	0.95	1.37	247	247	235	339	88	88	84	121	
F	22A-tpl	0.989	-	36.20	0.00	247	17	615	0	88	11	398	0		
6	c) AED excursion									-20				-5	
	Envelope loss/gain								1699	919			812	336	
12	a) Infiltration								439	107			284	69	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230			2			460	0			0	
			Appliances/other							300				0	
	Subtotal (lines 6 to 13)								2138	1785			1096	405	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
	Subtotal								2138	1785			1096	405	
15	Duct loads							30%	47%	640	846	30%	47%	328	192
	Total room load								2778	2632			1424	597	
	Air required (cfm)								118	124			61	28	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher

Date: Jun 15, 2021

By:

16051 NW 30th Ave, Trenton, FI 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name					Laundry					Kitchen				
2	Exposed wall					0 ft					21.0 ft				
3	Room height					9.0 ft					12.0 ft				
4	Room dimensions					10.0 x 8.0 ft					21.0 x 16.0 ft				
5	Room area					80.0 ft²					336.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	252	195	649	432	
11	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	15	0	220	164	
	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0	
	D	11J0	0.600	n	21.96	17.61	0	0	0	0	42	42	922	740	
	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0	
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0	
	C	16B-38md	0.026	-	0.95	1.37	80	80	76	110	336	336	320	462	
F	22A-tpl	0.989	-	36.20	0.00	80	0	0	0	336	21	760	0		
6	c) AED excursion								-7				-41		
	Envelope loss/gain							76	103			2871	1756		
12	a) Infiltration							0	0			723	176		
	b) Room ventilation							0	0			0	0		
13	Internal gains: Occupants @ 230 Appliances/other					0			0	2			460		
									500				1200		
	Subtotal (lines 6 to 13)							76	603			3594	3592		
14	Less external load							0	0			0	0		
	Less transfer							0	0			0	0		
	Redistribution							0	0			0	0		
	Subtotal							76	603			3594	3592		
15	Duct loads					30%	47%	23	286	30%	47%	1077	1703		
	Total room load								99	889			4671	5295	
	Air required (cfm)								4	42			199	250	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name					Great Room					Bedroom 2				
2	Exposed wall					21.0 ft					28.5 ft				
3	Room height					12.0 ft					9.0 ft				
4	Room dimensions					1.0 x 404.0 ft					13.0 x 15.5 ft				
5	Room area					404.0 ft²					201.5 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	117	87	290	193	
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0	
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	30	0	439	328	
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0	
11	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	140	140	465	309	
	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	252	201	669	445	0	0	0	0	
	G	1D-c2ov	0.400	s	14.64	11.08	30	26	439	332	0	0	0	0	
	D	11J0	0.600	s	21.96	17.61	21	21	461	370	0	0	0	0	
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0	
	C	16B-38md	0.026	-	0.95	1.37	404	404	384	555	202	202	192	277	
	F	22A-tpl	0.989	-	36.20	0.00	404	21	760	0	202	29	1032	0	
6	c) AED excursion									-18				-23	
	Envelope loss/gain								2714	1684			2417	1083	
12	a) Infiltration								723	176			736	179	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ 230						2			460	2			460	
	Appliances/other									900				300	
	Subtotal (lines 6 to 13)								3437	3220			3153	2022	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
	Subtotal								3437	3220			3153	2022	
15	Duct loads						30%	47%	1030	1527	30%	47%	945	959	
	Total room load								4467	4747			4097	2981	
	Air required (cfm)								190	224			174	141	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher

Date: Jun 15, 2021

By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name					Bath					Bedroom 3				
2	Exposed wall					6.0 ft					32.5 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					9.0 ft 9.0 x 6.0 ft					13.0 x 15.0 ft				
5	Room area					54.0 ft²					195.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	0	0	0	0	
11	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0	
	D	11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	e	3.33	2.22	54	39	130	86	135	135	450	299	
	G	1D-c2ov	0.400	e	14.64	25.95	15	0	220	389	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	117	87	290	193	
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	30	26	439	332	
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	41	41	135	90	
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0	
	C	16B-38md	0.026	-	0.95	1.37	54	54	51	74	195	195	186	268	
	F	22A-tpi	0.989	-	36.20	0.00	54	6	217	0	195	33	1176	0	
	6	c) AED excursion								23				-6	
		Envelope loss/gain							618	573			2675	1176	
	12	a) Infiltration							155	38			839	204	
	b) Room ventilation							0	0			0	0		
13	Internal gains:		Occupants @	230		0			0	2			460		
			Appliances/other						200				300		
	Subtotal (lines 6 to 13)							773	811			3514	2140		
14	Less external load							0	0			0	0		
	Less transfer							0	0			0	0		
	Redistribution							0	0			0	0		
	Subtotal							773	811			3514	2140		
15	Duct loads						30%	47%	232	384	30%	47%	1053	1014	
	Total room load								1004	1195			4567	3154	
	Air required (cfm)								43	56			194	149	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Manual S Compliance Report

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher
Date: Jun 15, 2021
By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Speicher

Cooling Equipment

Design Conditions

Outdoor design DB: 91.9°F	Sensible gain: 23279 Btuh	Entering coil DB: 77.2°F
Outdoor design WB: 76.2°F	Latent gain: 3847 Btuh	Entering coil WB: 72.2°F
Indoor design DB: 75.0°F	Total gain: 27125 Btuh	
Indoor RH: 85%	Estimated airflow: 1100 cfm	

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	
Manufacturer: Comfortmaker	Model: N4H436GKG21+FEM4X3600BL
Actual airflow: 1100 cfm	
Sensible capacity: 23100 Btuh	99% of load
Latent capacity: 9900 Btuh	257% of load
Total capacity: 33000 Btuh	122% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB: 33.4°F	Heat loss: 25881 Btuh	Entering coil DB: 68.9°F
Indoor design DB: 70.0°F		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	
Manufacturer: Comfortmaker	Model: N4H436GKG21+FEM4X3600BL
Actual airflow: 1100 cfm	
Output capacity: 27452 Btuh	106% of load
Supplemental heat required: 0 Btuh	
Capacity balance: 27 °F	
Economic balance: -99 °F	

Backup equipment type: Elec strip	
Manufacturer: n/a	Model: n/a+n/a
Actual airflow: 1100 cfm	
Output capacity: 7.3 kW	96% of load Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.



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Page 1



Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 1
15 Mar 09

Header Information

Contractor: Spann's Heating and Air INC.
Mechanical license: Jack Spann

Building plan #:

Home address (Street or Lot#, Block, Subdivision): , Entire House

REQUIRED ATTACHMENTS

Manual J1 Form (and supporting worksheets):
or MJ1AE Form* (and supporting worksheets):
OEM performance data (heating, cooling, blower):
Manual D Friction Rate Worksheet:
Duct distribution sketch:

ATTACHED

Yes	☐	No	☐
Yes	☐	No	☐
Yes	☐	No	☐
Yes	☐	No	☐
Yes	☐	No	☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature: 33 °F
Indoor temperature: 70 °F
Total heat loss: 25881 Btuh

Summer Design Conditions

Outdoor temperature: 92 °F
Indoor temperature: 75 °F
Grains difference: 0 gr/lb @85% RH
Sensible heat gain: 24023 Btuh
Latent heat gain: 3970 Btuh
Total heat gain: 27993 Btuh

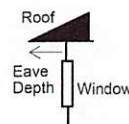
Building Construction Information

Building

Orientation: Front Door faces North
North, East, West, South, Northeast, Northwest, Southeast, Southwest
Number of bedrooms: 0
Conditioned floor area: 1699 ft²
Number of occupants: 10

Windows

Eave overhang depth: 1.0 ft
Internal shade: none
Blinds, drapes, etc.
Number of skylights: 0



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type: Split ASHP
Furnace, Heat pump, Boiler, etc.
Model: Comfortmaker
N4H436GKG21+FEM4X3600BL
Heating output capacity: 27452 Btuh
Heat pumps - capacity at winter design outdoor conditions
Aux. heating output capacity: 24741 Btuh

Cooling Equipment Data

Equipment type: Split ASHP
Air Conditioner, Heat pump, etc.
Model: Comfortmaker
N4H436GKG21+FEM4X3600BL
Total cooling capacity: 0 Btuh
Sensible cooling capacity: 0 Btuh
Latent cooling capacity: 0 Btuh

Blower Data

Heating cfm: 1100
Cooling cfm: 1100
Static pressure: 0.70 in H2O
Fan's rated external static pressure for design airflow

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow: 1100 cfm	Longest supply duct: 349 ft	Duct Materials Used
Equipment design ESP: 0.70 in H2O	Longest return duct: 0 ft	Trunk duct: Sheet metal
Total device pressure losses: 0 in H2O	Total effective length (TEL): 349 ft	Branch duct: Round flex vinyl, Sheet metal
Available static pressure (ASP): 0.70 in H2O	Friction rate: 0.201 in/100ft	

Friction Rate = ASP ÷ (TEL × 100)

I declare the load calculation, equipment, equipment selection and duct design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's printed name: _____

Contractor's signature: _____

Date: _____

Reserved for County, Town Municipality or Authority having jurisdiction use.

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist



Duct System Summary

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Speicher
Date: Jun 15, 2021
By:

16051 NW 30th Ave, Trenton, FL 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Speicher

	Heating	Cooling
External static pressure	0.70 in H2O	0.70 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.70 in H2O	0.70 in H2O
Supply / return available pressure	0.350 / 0.350 in H2O	0.350 / 0.350 in H2O
Lowest friction rate	0.201 in/100ft	0.201 in/100ft
Actual air flow	1100 cfm	1100 cfm
Total effective length (TEL)	349 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Bath	c 1195	43	56	0.203	5.0	0x0	VIFx	45.0	300.0	st1
Bedroom 2	h 4097	174	141	0.201	7.0	0x0	VIFx	48.5	300.0	st1
Bedroom 3	h 4567	194	149	0.202	7.0	0x0	VIFx	46.1	300.0	st1
Closet	h 1424	61	28	0.405	5.0	0x0	VIFx	12.8	160.0	st1
Great Room-A	c 4747	190	224	0.266	7.0	0x0	VIFx	28.5	235.0	st1
Kitchen-A	c 5295	199	250	0.262	7.0	0x0	VIFx	32.0	235.0	st1
Laundry	c 889	4	42	0.272	6.0	0x0	VIFx	12.0	245.0	st1
Master Bath	h 2774	118	85	0.402	5.0	0x0	VIFx	14.0	160.0	st1
Master Bedroom	c 2632	118	124	0.259	7.0	0x0	VIFx	15.0	255.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	1100	1100	0.201	0	12.4	8 x 0	ShtMetl	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x0	1100	1100	0	0	0	0	0x 0		ShMt	

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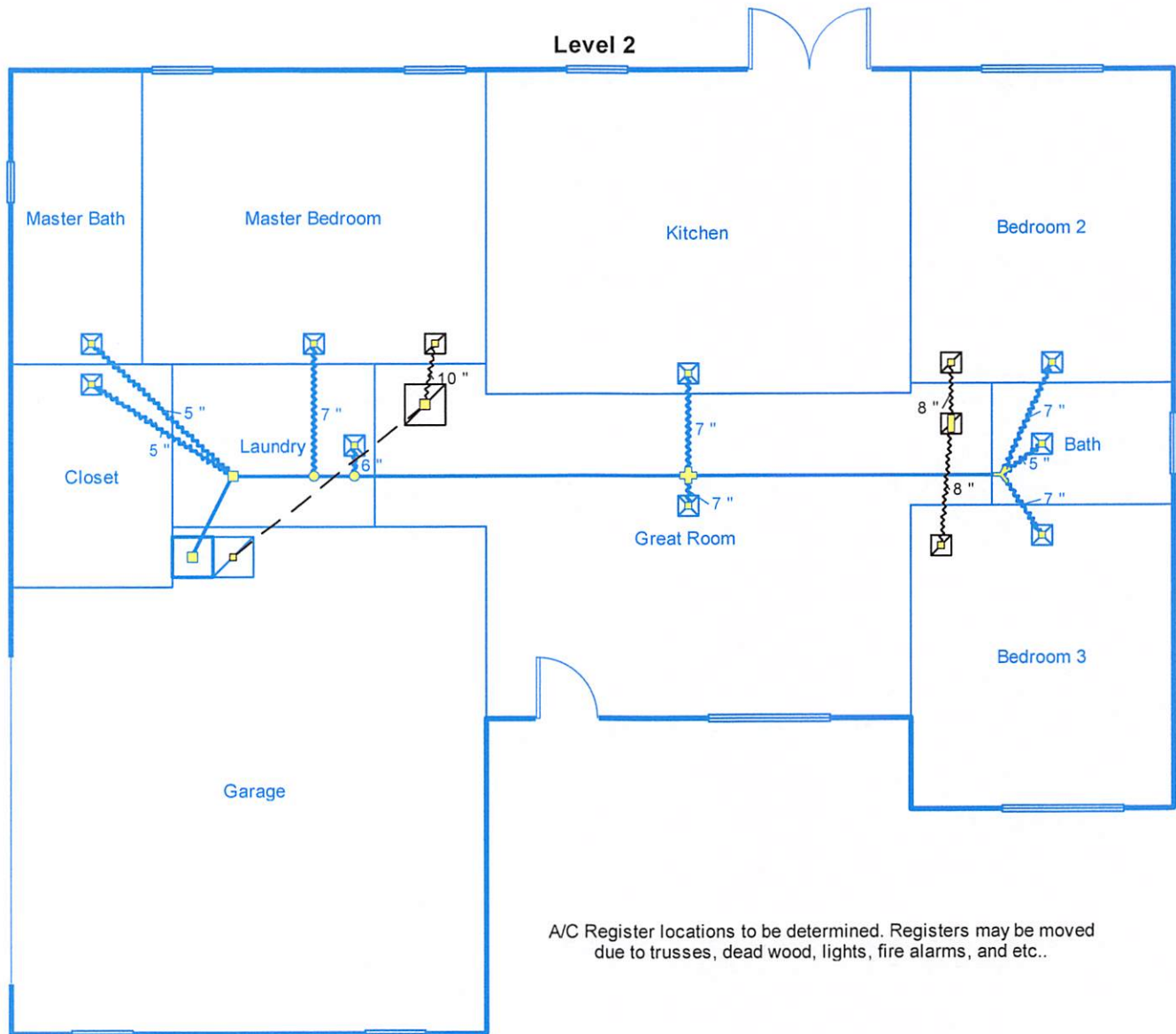


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Page 1

...ments\Wrightsoft HVAC\Rodney Wade- Speicher.rup Calc = MJ8 Front Door faces: N



Job #: Rodney Wade- Speicher
Performed for:
Rodney Wade- Speicher

Spann's Heating and Air INC.
16051 NW 30th Ave
Trenton, FL 32693
Phone: 3524636440
spann21@bellsouth.net

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