Project Summary

Job:
Date: Feb 26, 2026
By: Jonathan Jacobs

MechaniCalcs LLC

122 Del Palma, Palm Coast, FL 32137 Phone: 386-503-0449 Email: MechaniCalcs@gmail.com Web: ineedHVACcalcs.com or MechaniCalcsLLC.com

Project Information

For: Vincent Greenlee, Buildings & More
132 SW Eglin Pl, Lake City, FL 32024

Notes:

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33	°F
Inside db	70	°F
Design TD	37	°F
Ventilation Method	ASHRAE 62.2-2010	

Summer Design Conditions

Outside db	94	°F
Inside db	75	°F
Design TD	19	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	42	gr/lb

Heating Summary

Structure	25355	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	25355	Btuh

Sensible Cooling Equipment Load Sizing

Structure	14603	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	y	
Rate/swing multiplier	1.00	
Equipment sensible load	14603	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure /ACH /AVF	50 Pa / 7.0 / 2536 cfm

	Heating	Cooling
Area (ft²)	1500	1500
Volume (ft³)	21740	21740
Air changes/hour	0.55	0.31
Equiv. AVF (cfm)	198	112

Latent Cooling Equipment Load Sizing

Structure	3799	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	3799	Btuh
Equipment Total Load (Sen+Lat)	18402	Btuh
Req. total capacity at 0.80 SHR	1.5	ton

Heating Equipment Summary

Make	Mitsubishi Electric
Trade	Ductless 4 Zone
Model	MXZ-5D36NL***
AHRI ref	216498927

Efficiency	9.3 HSPF2	
Heating input		
Heating output	36000	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	1180	cfm
Air flow factor	0.047	cfm/Btuh
Static pressure	0	in H2O

Space thermostat
Capacity balance point = 24 °F

Cooling Equipment Summary

Make	Mitsubishi Electric
Trade	Ductless 4 Zone
Cond	MXZ-5D36NL***
Coil	
AHRI ref	216498927

Efficiency	12.0 EER2,19.2 SEER2	
Sensible cooling	28320	Btuh
Latent cooling	7080	Btuh
Total cooling	35400	Btuh
Actual air flow	1180	cfm
Air flow factor	0.080	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0.79	

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

Manual S Compliance Report

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Cooling Equipment

Design Conditions

Outdoor design DB:	94.0°F	Sensible gain:	14603	Btuh	Entering coil DB:	75.0°F
Outdoor design WB:	76.0°F	Latent gain:	3799	Btuh	Entering coil WB:	62.5°F
Indoor design DB:	75.0°F	Total gain:	18402	Btuh		
Indoor RH:	50%	Estimated airflow:	0	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Mitsubishi Electric		Model:	MXZ-5D36NL***	
Actual airflow:	1180	cfm			
Sensible capacity:	28320	Btuh	194% of load		
Latent capacity:	7080	Btuh	186% of load		
Total capacity:	35400	Btuh	192% of load	SHR:	80%

Heating Equipment

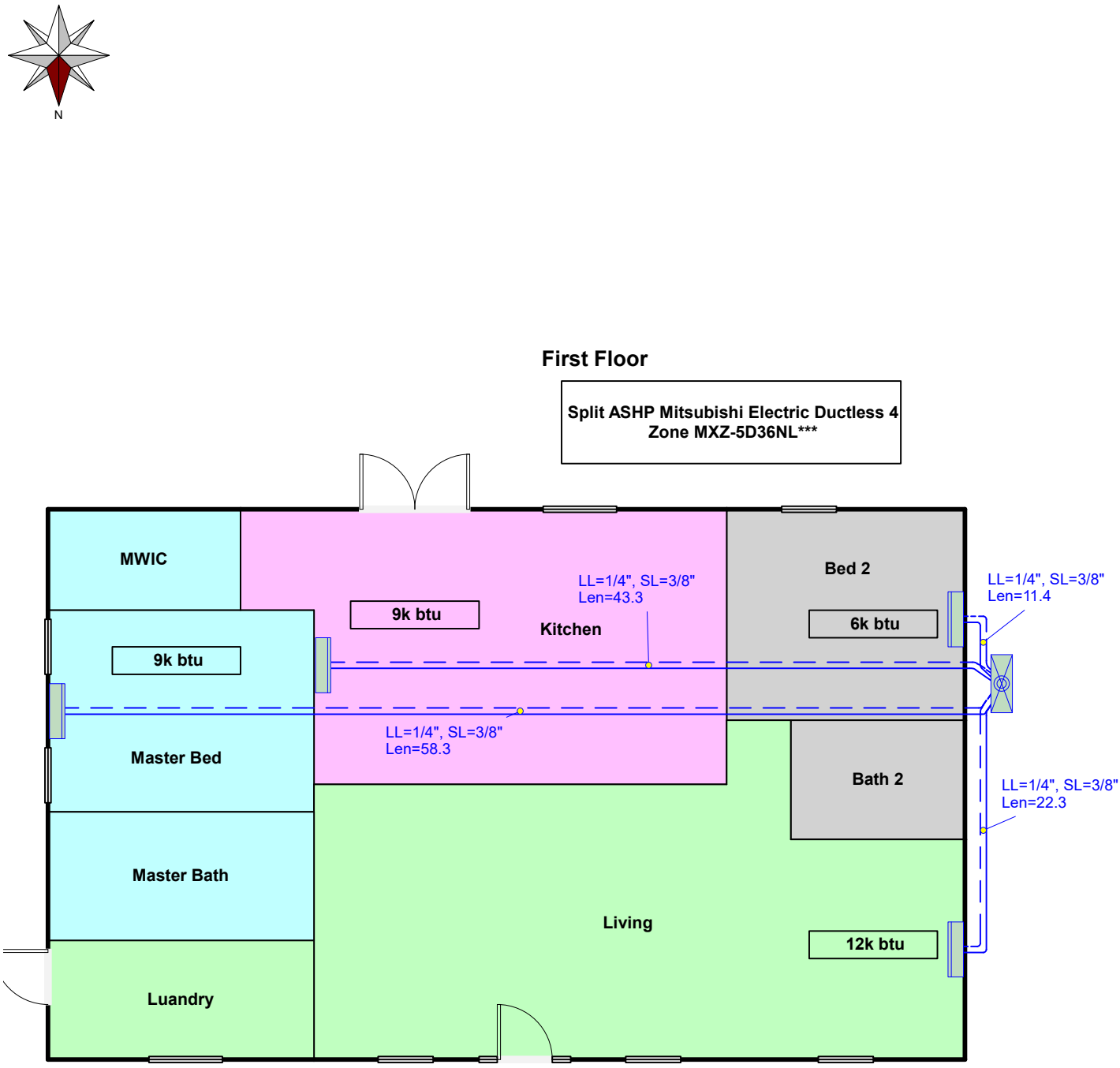
Design Conditions

Outdoor design DB:	33.3°F	Heat loss:	25355	Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP					
Manufacturer:	Mitsubishi Electric		Model:	MXZ-5D36NL***		
Actual airflow:	1180	cfm				
Output capacity:	36000	Btuh	142% of load		Capacity balance:	24 °F
Supplemental heat required:	0	Btuh			Economic balance:	-99 °F

Meets all requirements of ACCA Manual S.



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Performed by Jonathan Jacobs for:
Vincent Greenlee
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Lake City, FL 32024

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Phone: 386-503-0449
ineedHVACcalcs.com or MechaniCalcsLLC.com Me...

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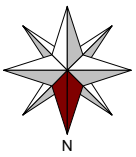

Notes

MechaniCalcs DESIGN DETAIL SUMMARY

MechaniCalcs responsibility is solely for design of the HVAC system based upon the design information
andconditions specified in the drawing and accompanying ACCA Manual J, S, D and T reports. The HVAC
design is based only upon the design information and conditions shown, which have not been verified

Before use, the building designer must verify the applicability of the design information and conditions, and properly incorporate this HVAC design into the overall building design. The HVAC design shown is only valid for the building layout, elevations, orientation, interior floor plan, construction materials, equipment, and weather bin data specified in the drawing.

Any change to the design information and conditions, or deviation from this design will require an updated HVAC design. MechaniCalcs no responsibility for deviations from it's HVAC design, use of its
designs for purpose other than as intended by MechaniCalcs, or for the improper construction or installation of HVAC systems based on its designs