

# HERS Rated Home Summary



**Organization**  
MaGrann Associates  
~~XXXXXXXXXX~~

**Inspection Status**  
Results are projected

**Builder**  
SEED Homes

## General Building Information

Number Of Bedrooms	3
Number Of Floors	2
Conditioned Floor Area [sq. ft.]	2,418
Has Electric Vehicle Ready Space	No
Unconditioned, attached garage?	No
Conditioned Volume [cu. ft.]	36,908
Total Units in Building	1
Residence Type	Single family detached
Number of Floors in Building	-
Floor Number	-
Model	
Community	
RESNET/IECC 2006 Climate Zone	5A

## Foundation Wall

Name	Library Type	Height Above Grade	Depth Below Grade	Perimeter	Location	Enclosing
EC/GR	Concrete Wall, R-10 exterior insulation, R14 csSE interior, full height	1	3.5	150	Exposed Exterior	Conditioned CrawlSpace

## Foundation Wall Library List

Name	Feet From Wall Top To Continuous Insulation Top	Feet From Wall Top To Continuous Insulation Bottom	Is Fully Insulated	Continuous R-value	Cavity R-value	Effective Insulation R-value
Concrete Wall, R-10 exterior insulation, R14 csSE interior, full height	N/A	N/A	Yes	24.00	N/A	N/A

## Slab

Name	Library Type	Perimeter	Floor Grade	Carpet R	Exposed Masonry Area	Surface Area	Location	Enclosing
Below Grade	R20U,Full	150	Below Grade	0	1,155	1,155.0 ft²	Exposed Exterior	Conditioned CrawlSpace

## Slab Library List

Name	Wall Construction Type	Slab Completely Insulated?	Underslab Insulation Width [ft]	Perimeter Insulation Depth [ft]	Perimeter Insulation R Value	Thermal Break	Effective R-value
R20U,Full	Wood Frame / Other	Yes	0	0	0	No	20.00

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Initial House Design

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## Framed Floor

None Present

## Framed Floor Library List

None Present

## Rim Joist

Name	Library Type	Surface Area	Location
Rim and Band Joist	R 35 interior + R12.6 exterior	300.0 ft <sup>2</sup>	Exposed Exterior

## Rim Joist Library List

Name	Effective Insulation R-value
R 35 interior + R12.6 exterior	47.60

## Wall

Name	Library Type	Surface Color	Surface Area	Location
Wall	R-23 Insulation, 2x6 wood studs @ 24" oc, R-12.6 insulation on exterior	Medium	3,098.0 ft <sup>2</sup>	Exposed Exterior

## Wall Library List

Name	Effective R-value
R-23 Insulation, 2x6 wood studs @24" oc, R-12.6 insulation on exterior	31.434

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## Glazing

Name	Library Type	Wall Assignment	Foundation Wall Assignment	Is Operable	Overhang Depth	Overhang Ft To Top	Overhang Ft To Bottom	Orientation	Surface Area
Back	U:0.17, SHGC:0.31	Wall		Yes	0	0	0	East	25.3 ft²
Back - OH	U:0.17, SHGC:0.31	Wall		Yes	2.6	2	8.7	East	18.0 ft²
Back - Slider	U:0.24, SHGC:0.22	Wall		Yes	0	0	0	East	44.0 ft²
Front	U:0.17, SHGC:0.31	Wall		Yes	0	0	0	West	72.0 ft²
Front - OH1	U:0.17, SHGC:0.31	Wall		Yes	5.5	9.4	16	West	30.0 ft²
Front - OH2	U:0.17, SHGC:0.31	Wall		Yes	5.5	1	9	West	15.0 ft²
Left	U:0.17, SHGC:0.31	Wall		Yes	0	0	0	North	82.0 ft²
Right	U:0.17, SHGC:0.31	Wall		Yes	0	0	0	South	38.3 ft²
Right - OH1	U:0.17, SHGC:0.31	Wall		Yes	1	0	4	South	57.8 ft²
Right - OH2	U:0.17, SHGC:0.31	Wall		Yes	3.4	0	4	South	38.3 ft²
Right - Sliders	U:0.24, SHGC:0.22	Wall		Yes	0	0	0	South	132.0 ft²

## Glazing Library List

Name	Shgc	U-factor
U:0.17, SHGC:0.31	0.31	0.170
U:0.24, SHGC:0.22	0.22	0.240

## Skylight

Name	Library Type	Roof Assignment	Orientation	Surface Area	Location
North	Velux .26.23	Sealed Attic	North	12.0 ft²	Vaulted Roof

## Skylight Library List

Name	Shgc	U-factor
Velux .26.23	0.23	0.260

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## Opaque Door

Name	Library Type	Wall Assignment	Foundation Wall Assignment	Emittance	Solar Absorptance	Surface Color	Surface Area	Location
Opaque Door	Steel-urth w/brk	Wall		0.9	0.75	Medium	56.0 ft²	Exposed Exterior

## Opaque Door Library List

Name	Effective R-value
Steel-urth w/brk	4.40

## Roof Insulation

Name	Library Type	Attic Exterior Area [ft²]	Clay or Concrete Roof Tiles	Surface Color	Surface Area	Location
Sealed Attic	R-41, Vaulted	1,105	No	Medium	1,105.0 ft²	Vaulted Roof
Sealed Attic - Mech Room	R-41 Cavity + R13.2 continuous	400	No	Medium	400.0 ft²	Vaulted Roof

## Roof Insulation Library List

Name	Has Radiant Barrier	Effective R-value
R-41 Cavity + R13.2 continuous	No	60.665
R-41, Vaulted	No	34.75

## Whole House Infiltration

Infiltration	Measurement Type	Shelter Class
758 CFM at 50 Pa	Blower-door tested	4

$$\text{ACH} = \frac{\text{CFM} \times 60 \text{ min}}{\text{Volume}} = \frac{758 \times 60}{36,908 \text{ Cu.Ft}} = 1.2 \text{ ACH @50 Pa}$$

## Mechanical Ventilation

Ventilation Type	Ventilation Rate [ft³ / Minute]	Operational hours per day	Fan Watts	Runs once every three hours	Energy Recovery Percent	Model Number	Manufacturer
ERV	76 CFM	24	97 Watts	No	55		

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## Lighting

% Interior Fluorescent Lighting	% Interior LED Lighting	% Exterior Fluorescent Lighting	% Exterior LED Lighting	% Garage Fluorescent Lighting	% Garage LED Lighting
0	100	0	100	0	100

## Onsite Generation

None Present

## Onsite Generation Library List

None Present

## Solar Generation

Index	Track Mode	Nameplate Capacity (kWdc)	Derate Factor	Orientation (deg)	Tilt (deg)
1	Fixed	7.8 kW	0.82	180°	40°

## Dehumidifier

None Present

## Dehumidifier Library List

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## Conditioning Equipment

Name	Library Type	Serial Number	Heating Percent Load	Cooling Percent Load	Hot Water Percent Load	Location
Cooling - 1st Fl	Mini Split Heat Pump, 12k, 19 SEER		0%	50%	0%	Conditioned Crawlspace
Cooling - 2nd Fl	Mini Split Heat Pump, 12k, 19 SEER		0%	50%	0%	Conditioned / Sealed Attic
Heating - 1st Fl	Mini Split Heat Pump, 15k, 10.2 hspf		50%	0%	0%	Conditioned Crawlspace
Heating - 2nd Fl	Mini Split Heat Pump, 15k, 10.2 hspf		50%	0%	0%	Conditioned / Sealed Attic
Water Heater	Electric, Heat Pump, 50 gallons, 3.57 EF		0%	0%	100%	Conditioned Crawlspace

### Equipment Type: Electric, Heat Pump, 50 gallons, 3.57 EF

Equipment Type	Residential Water Heater
Fuel Type	Electric
Distribution Type	Hydronic Delivery (Radiant)
Hot Water Efficiency	3.57 Energy Factor
Tank Capacity (gal.)	50

### Equipment Type: Mini Split Heat Pump, 12k, 19 SEER

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Cooling Efficiency	19 SEER
Cooling Capacity [kBtu/h]	12

### Equipment Type: Mini Split Heat Pump, 12k, 19 SEER

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Cooling Efficiency	19 SEER
Cooling Capacity [kBtu/h]	12

### Equipment Type: Mini Split Heat Pump, 15k, 10.2 hspf

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Heating Efficiency	10.2 HSPF
Heating Capacity [kBtu/h]	15.6

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## Equipment Type: Mini Split Heat Pump, 15k, 10.2 hspf

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Heating Efficiency	10.2 HSPF
Heating Capacity [kBtu/h]	15.6

## Distribution System

Distribution Type	Forced Air
Heating Equipment	Heating - 1st Fl
Cooling Equipment	Cooling - 1st Fl
Sq. Feet Served	1,209
# Return Grilles	1
Supply Duct R Value	6
Return Duct R Value	6
Supply Duct Area [ft <sup>2</sup> ]	326.43
Return Duct Area [ft <sup>2</sup> ]	60.45
Leakage to Outdoors	10 CFM @ 25Pa (0.83 / 100 ft <sup>2</sup> )
Total Leakage	76 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Conditioned Space
Percent Supply Area	100
Percent Return Area	100
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

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## Distribution System

Distribution Type	Forced Air
Heating Equipment	Heating - 2nd Fl
Cooling Equipment	Cooling - 2nd Fl
Sq. Feet Served	1,209
# Return Grilles	1
Supply Duct R Value	6
Return Duct R Value	0
Supply Duct Area [ft <sup>2</sup> ]	326.43
Return Duct Area [ft <sup>2</sup> ]	10
Leakage to Outdoors	10 CFM @ 25Pa (0.83 / 100 ft <sup>2</sup> )
Total Leakage	38 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Conditioned Space
Percent Supply Area	100
Percent Return Area	100
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

## Ceiling Fan

Has Ceiling Fan	No
Cfm Per Watt	70.42253521

## Water Distribution

Water Fixture Type	Low-flow
Use Default Hot Water Pipe Length	No
Hot Water Pipe Length [ft]	50
At Least R3 Pipe Insulation?	Yes
Hot Water Recirculation System?	No
Recirculation System Pipe Loop Length [ft]	170
Drain Water Heat Recovery?	No



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## Clothes Dryer

Cef	3.93
Fuel Type	Electric
Field Utilization	Timer Controls
Is Outside Conditioned Space	No
Clothes Dryer Available	Yes
Defaults Type	Custom

## Clothes Washer

Label Energy Rating	143 kWh/Year
Annual Gas Cost	\$11.00
Electric Rate	\$0.12/kWh
Gas Rate	\$1.09/Therm
Capacity	4.8
Imef	2.76
Defaults Type	Custom
Load Type	Front-load
Loads Per Week	6
Is Outside Conditioned Space	No
Clothes Washer Available	Yes

## Dishwasher

Dishwasher Efficiency	270 kWh
Dishwasher Size	Standard
Annual Gas Cost	\$23.00
Electric Rate	\$0.13/kWh
Gas Rate	\$1.05/Therm
Is Outside Conditioned Space	No

## Appliances and Controls

Programmable thermostat?	Yes
Range/Oven Fuel	Electric
Convection Oven?	Yes
Induction Range?	Yes
Range/Oven Outside Conditioned Space?	No
Refrigerator Consumption	679 kWh/Year
Refrigerator Outside Conditioned Space?	No

## Notes

# 45L Tax Credit

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## Projected Rating: Based on Plans - Field Confirmation Required

**Normalized Modified End-Use Loads (MBtu / year)**

Category	2006 IECC 50%	As Designed
	Target	
Heating	34.7	23.1
Cooling	3.2	2.6
<b>Total</b>	<b>37.9</b>	<b>25.7</b>

**Envelope Loads (MBtu / year)**

Category	2006 IECC	As Designed
	90% Target	
Heating	62.5	30.3
Cooling	5.7	4.7
<b>Total</b>	<b>68.2</b>	<b>35.0</b>

**Building Features**

Ceiling U: 0.029  
Wall U: 0.032  
Framed Floor U: N/A  
Slab R: R-20  
Glazing Properties: U-Value: 0.17, SHGC: 0.31

Heating System: Air Source Heat Pump • Electric • 10.2 HSPF  
Cooling System: Air Source Heat Pump • Electric • 19 SEER  
Duct Leakage to Outside: 10 CFM @ 25Pa (0.83 / 100 ft<sup>2</sup>)

This home meets the requirements for the residential energy efficiency tax credit under section 1332, Credit for Construction of New Energy Efficient Homes, of the Energy Policy Act of 2005. Builder should verify that the 45L Tax Credit is available for the year in which this home was built.

The undersigned certifier verifies that:

- (1) The dwelling unit has a projected level of annual heating and cooling energy consumption that is at least 50 percent below the annual level of heating and cooling energy consumption of a reference dwelling unit in the same climate zone;
- (2) Building envelope component improvements alone account for a level of annual heating and cooling energy consumption that is at least 10 percent below the annual level of heating and cooling energy consumption of a reference dwelling unit in the same climate zone; and
- (3) Heating and cooling energy consumption have been calculated in the manner prescribed in section 2.03 of this notice.
- (4) Field inspections of the dwelling unit (or of other dwelling units under the ENERGY STAR® for Homes Sampling Protocol Guidelines) performed by the eligible certifier during and after the completion of construction have confirmed that all features of the home affecting such heating and cooling energy consumption comply with the design specifications provided to the eligible certifier.

"Under penalties of perjury, I declare that I have examined this certification, including accompanying documents, and to the best of my knowledge and belief, the facts presented in support of this certification are true, correct, and complete."

# Projected (From Plans)

Name: Walt Gayeski

Signature: \_\_\_\_\_

Organization: MaGrann Associates

Date: 3/11/22 at 10:04 AM

# Not Valid as Tax Documentation