



MINETO-1

Grand Rapids, Michigan

HAS FULFILLED THE REQUIREMENTS OF THE LEED GREEN BUILDING RATING SYSTEM CERTIFICATION ESTABLISHED BY THE U.S. GREEN BUILDING COUNCIL AND VERIFIED BY GREEN BUSINESS CERTIFICATION INC.

LEED v4.1

LEED FOR HOMES SINGLE FAMILY

PLATINUM

April 2026

A handwritten signature in black ink, appearing to read "Peter Templeton".

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PETER TEMPLETON, PRESIDENT & CEO  
U.S. GREEN BUILDING COUNCIL & GREEN BUSINESS CERTIFICATION INC.

# MiNet0-1 (Eastern) Scorecard (ID: 1000181936)



Project Address 1000181936, MiNet0-1 (Eastern), 720 Eastern Avenue NE Grand Rapids, MI

Note: The information on this tab is READ-ONLY. To edit this information, see the Credit Category tabs.

Total		Certification Level:	Platinum	Verified	87
	<b>Integrative Process</b>	Preliminary	Y 0 of 2	M 0	Verified 0
IPc	Integrative Process		0 of 2	0	
	<b>Location and Transportation</b>	Preliminary	Y 1 of 10	M 0	Verified 8
LTP	Floodplain Avoidance		Required		Verified
LTc	LEED for Neighborhood Development		0 of 10	0	
LTc	Site Selection		1 of 6	0	6
LTc	Compact Development		0 of 1	0	1
LTc	Community Resources		0 of 1	0	1
LTc	Access to Transit		0 of 2	0	
	<b>Sustainable Sites</b>	Preliminary	Y 0 of 5	M 0	Verified 2
SSp	Construction Activity Pollution Prevention		Required		Verified
SSc	Heat Island Reduction		0 of 1	0	
SSc	Rainwater Management		0 of 2	0	
SSc	Nontoxic Pest Control		0 of 2	0	2
	<b>Water Efficiency</b>	Preliminary	Y 0 of 15	M 0	Verified 12
WEp	Water Use		Required		Verified
WEp	Water Metering		Required		Verified
WEc	Total Water Use		0 of 15	0	
WEc	Indoor Water Use		0 of 11	0	10
WEc	Outdoor Water Use		0 of 4	0	2
	<b>Energy and Atmosphere</b>	Preliminary	Y 0 of 40	M 0	Verified 37
EAp	Minimum Energy Performance		Required		Verified
EAp	Energy Metering		Required		Verified
EAp	Education of the Homeowner, Tenant or Building Manager		Required		Verified
EAc	Annual Energy Use		0 of 36	0	36
EAc	Efficient Hot Water Distribution System		0 of 2	0	
EAc	HVAC Start-Up Credentialing		0 of 1	0	
EAc	Refrigerant Management		0 of 1	0	1



<b>Materials and Resources</b>		Preliminary	Y	0 of 12	M	0	Verified	6
<b>MRp</b>	Certified Tropical Wood	Required					Verified	
<b>MRp</b>	Durability Management	Required					Verified	
<b>MRc</b>	Durability Management Verification			0 of 3		0		3
<b>MRc</b>	Environmentally Preferable Products			0 of 5		0		2
<b>MRc</b>	Construction Waste Management			0 of 2		0		
<b>MRc</b>	Material-Efficient Framing			0 of 2		0		1



<b>Indoor Environmental Quality</b>		Preliminary	Y	0 of 16	M	1	Verified	15
<b>EQp</b>	Ventilation	Required					Verified	
<b>EQp</b>	Combustion Venting	Required					Verified	
<b>EQp</b>	Garage Pollutant Protection	Required					Verified	
<b>EQp</b>	Radon-Resistant Construction	Required					Verified	
<b>EQp</b>	Air Filtering	Required					Verified	
<b>EQp</b>	Compartmentalization	Required					Verified	
<b>EQc</b>	Enhanced Ventilation			0 of 3		0		3
<b>EQc</b>	Contaminant Control			0 of 3		0		3
<b>EQc</b>	Balancing of Heating and Cooling Distribution Systems			0 of 6		1		5
<b>EQc</b>	Low-Emitting Products			0 of 4		0		4



<b>Innovation</b>		Preliminary	Y	0 of 6	M	0	Verified	3
<b>INp</b>	Preliminary Rating	Required					Verified	
<b>INc</b>	Innovation			0 of 5		0		2
<b>INc</b>	LEED Accredited Professional			0 of 1		0		1



<b>Regional Priority</b>		Preliminary	Y	0 of 4	M	0	Verified	4
<b>RPC</b>	Regional Priority			0 of 4		0		4

<b>Total</b>		Preliminary	Y	1 of 110	M	1	Verified	87
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**Certification Thresholds** Certified: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80-110

The GreenHome Institute Hereby Certifies

# MINeto-1

720 EASTERN AVENUE NE  
GRAND RAPIDS, MI 49503

FOR A NEW CONSTRUCTION PROJECT, ACHIEVING  
GREENSTAR HOMES PLATINUM CERTIFICATION



Date of Certification: April 13<sup>th</sup> 2026

Version 4 Certification ID# 20230713001



Badges: Zero Energy | All Electric Home | Healthier Home | Resilience | Peak load Shaver





	<b>Project details</b>	<b>Select or enter in</b>
	Project Name	MINet0-1
	Address	720 Eastern Avenue NE
	Address 2	
	City	Grand Rapids
	State	MI
[1]	Zip	49503
	Use	Single Family
	Build	New Construction
	Conditioned Square feet	1516
[2]	Number of bedrooms	3
	Number of living units	1
	<b>Team Leader Contact</b>	
	Name	Dale Hulst
	Company	Michigan Net Zero Home LLC
	Profession / role	Owner/Designer/Builder
	Email	dale@minetzero.com
	Phone	616-260-9711
	<b>Green Home Inspector</b>	
	Name	Jenny Rempert
	Company	Eco Achievers
	Email	jenny@ecoachievers.com
	Phone	314-706-2499
	Project ID #?	
	Certification Goal	Platinum
	Submission Type?	Final Submittal
	Home Water Score?	8.1
	<b>Badges being pursued?</b>	
	Badge #1	GHI Zero Energy
	Badge #2	All Electric
	Badge #3	Healthier Home
	Badge #4	Peak Load Shaver
	Badge #5	Resilience
	Badge #6	
	Badge #7	
	Badge #8	
	<i>Current version</i>	4

GreenStar Homes Measures

Achieving?	Measures (click links for more details on each)
Yes	<a href="#">Determine the project's future climate risks</a>
Yes	<a href="#">Home Energy Cost Rating and Performance Testing Opportunities</a>
Yes	<a href="#">Moisture and wall water leak assessment + repair</a>
Yes	<a href="#">Properly exhausting bath fans in each bathroom</a>
Yes	<a href="#">Electric stove OR Range Hood is tested to vent at 100 CFM outdoors</a>
Yes	<a href="#">No gas leaks found from inspection</a>
Yes	<a href="#">Test combustion based appliances for CO leaks and replace or repair if found</a>
Yes	<a href="#">Carbon Monoxide detectors are installed on all floors and near fireplaces</a>
Yes	<a href="#">No radon detected above PCL 4 when tested or system installed</a>
Yes	<a href="#">Use at least MERV 8 Rated Filters on Ducted Systems</a>
Yes	<a href="#">Shower head(s) are 2.2 Gallons Per Minute (Average) Or Home Water Score of 2</a>
Yes	<a href="#">Bathroom Aerators are 2.0 Gallons Per Minute (Average) Or Home Water Score 2</a>
Yes	<a href="#">Toilets are under 1.6 Gallons per Flush (average) Or Home Water Score of 2</a>
Yes	<a href="#">Plumbing leak and pressure test shows no leaks</a>
Yes	<a href="#">Use steel braided hoses or drain pans under clothes washers</a>
Yes	<a href="#">Drains under tank water heater in or above living space</a>
Yes	<a href="#">Gutter system draining away from home or well-draining sandy soils</a>
Yes	<a href="#">Review and resolve any potential lead issues in pre-1978 homes</a>
Yes	<a href="#">Mitigate any asbestos or ensure none present</a>
Yes	<a href="#">No knob and tube wiring remains in the home</a>

GreenStar Homes Measures

Yes	<a href="#">A majority of lighting should be LED</a>
Yes	<a href="#">Attached Housing Only - Reduce air leaks between units</a>
Yes	<a href="#">If fireplace exists ensure occupants are not exposed to bad air quality</a>
Yes	<a href="#">Evaluate embodied carbon</a>
Yes	<a href="#">DOE Home Energy Score of 6 &lt;= 30.6 mbtu/year of energy use on New Builds</a>
Yes	<a href="#">Shower head(s) are 2.0 Gallons Per Minute (Average) or Home Water Score of 3</a>
Yes	<a href="#">Bathroom Aerators are 1.75 Gallons Per Minute (Average) or Home Water Score of 3</a>
Yes	<a href="#">Toilets are under 1.3 Gallons per Flush (average) or Home Water Score of 3</a>
Yes	<a href="#">Properly sized cooling equipment</a>
Yes	<a href="#">Use at least MERV 10 Rated Filters on Ducted Systems</a>
Yes	<a href="#">Moisture resistant flooring in bathroom, kitchen &amp; main entry ways</a>
Yes	<a href="#">Bath Fans must be tested to at least 50 CFM or more in each bathroom</a>
Yes	<a href="#">Whole-house fresh air supply provided</a>
Yes	<a href="#">New gas appliances must be sealed/vented or all electric</a>
Yes	<a href="#">The kitchen must have proper ventilation through rangehood or outdoor air system or monitor</a>
Yes	<a href="#">Refrigerant charge test completed on all AC / Heatpumps</a>
Yes	<a href="#">Create instructions documenting how to maintain the building</a>
Yes	<a href="#">Homeowner or tenant trained on how to maintain the building</a>
Yes	<a href="#">No new ducts in floor panned in joists</a>
Yes	<a href="#">New shower/tub surrounds use certified wallboard, coating or is drywall free</a>
Yes	<a href="#">Reduce embodied carbon in materials</a>
Yes	<a href="#">Further reduced air leakage in attached housing to .3 for new and .4 for existing</a>
Yes	Grading slopes away from home or french drains are added in new construction
Yes	<a href="#">DOE Home Energy Score of 8 &lt;= 24.5 mbtu/year of energy use on New Builds</a>
Yes	<a href="#">Shower head(s) are = or &lt; 1.5 Gallons Per Minute (Average) or home water score of 5</a>
Yes	<a href="#">Bathroom Aerators are = or &lt; 1 Gallons Per Minute (Average) or home water score of 5</a>

GreenStar Homes Measures

Yes	<a href="#">Toilets are = or &lt; 1 Gallon per Flush (average) or home water score of 5</a>
Yes	<a href="#">Balanced fresh air system installed and tested</a>
Yes	<a href="#">Add an air quality sensor to the main the living area or ducts</a>
Yes	<a href="#">Insulate cold water pipes or keep them out of unconditioned space</a>
Yes	<a href="#">Water heating is all electric or solar</a>
Yes	<a href="#">Cooking is all electric</a>
Yes	<a href="#">Dryer is all-electric</a>
Yes	<a href="#">Heating is dual fuel/hybrid or all-electric</a>
Yes	<a href="#">Use at least MERV 13 Rated Filters on Ducted Systems</a>
Yes	<a href="#">Tap water filtration added that is appropriate to the area</a>
Yes	<a href="#">Well water systems must use on demand softeners when present</a>
Yes	<a href="#">If installing new wood product do not use tropical OR make sure it is certified</a>
Yes	<a href="#">Attached Housing Only - Reduce air leaks between units - .23 New   .3 Renovation</a>
Yes	<a href="#">Reduce embodied energy or upfront carbon in materials by 15%</a>
Yes	<a href="#">DOE Home Energy Score of 10 on existing or 17.5 mbtu/year of energy use on New Builds</a>
Yes	<a href="#">All ducts are fully ducted and none are panned in the joists</a>
Yes	<a href="#">All Heating is all electric</a>
Yes	<a href="#">Use at least MERV 16 Rated Filters on Ducted Systems</a>
Yes	<a href="#">Ventilation includes energy/heat recovery or smart features</a>
Yes	<a href="#">Humidity control is present where appropriate by climate</a>
Yes	<a href="#">Advanced plumbing or hot water test passed</a>
Yes	<a href="#">Shower head(s) are = or &lt; 1.25 Gallons Per Minute (Average) or Home Water Score of 6</a>
Yes	<a href="#">Toilets are &lt; 1 Gallon per Flush (average) or Home Water Score of 6</a>
Yes	<a href="#">Bathroom Aerators are = or &lt; .5 Gallons Per Minute (Average) or Home Water Score of 6</a>
Yes	<a href="#">Water leak detection and real time metering</a>
Yes	<a href="#">No combustion fireplace present indoors</a>
Yes	<a href="#">Home appliances made for time of use / peak load avoidance</a>
Yes	<a href="#">Home breaker box 200 amp and can fit future solar &amp; electric car chargers</a>
Yes	<a href="#">Floorscore or Green Label Plus on new carpet</a>

GreenStar Homes Measures

Yes	<a href="#">Attached Housing Only - Reduce air leaks between units - .15 New   .23 Renovations</a>
Yes	<a href="#">Reduce embodied energy or upfront carbon in materials by 25%</a>

Areas	Baseline in gallons of water per year	Baseline Starting Assumptions	Measurements	Enter Average flow rate of installed or proposed devices
Toilet	18,980.00	1.6	Enter Gallons Per Flush >	0.8
Shower	4,125.30	2.5	Enter Gallons Per Minute >	1.5
Bathroom	3,650.00	2.2	Enter Gallons Per Minute >	0.5 [1]
Kitchen aerator	3,650.00	2.5	Enter Gallons Per Minute >	1.5
Clothes Washer	3,394.50	10	Enter in Water Factor >	3.5
Dishwasher	379.60	6.1	Enter Gallons Per Cycle >	3.2
Leaks	3,110.67	2,681.57	Enter in 0 when no leaks detected >	0
Outdoor water use (EPA Baseline) vs Landscape Water Requirements	13,873		<a href="#">Learn How to Use the Home Water Score here</a>	6,644
Total Usage Before	51,163			
Grey Water Usage gallons >	0			
Rain water / Ground Water Usage >	0			
Gallons offset by grey/rain water	0.00			
% saved from rain/grey water	0.00%			Home Water Score
Total Gallons Saved in %	81.07%			8.1
Total Indoor Usage excluding leaks	16,372			
Total Indoor Usage with leaks	37,290.07			



### Usage of water pre construction / renovation



Usage

Outdoor  
30.6%

# Home Energy Rating Certificate

Final Report

Rating Date: 2025-11-07  
 Registry ID: 917324602  
 Ekotrope ID: dG5yy012



**HERS® Index Score:**  
**-28**

Your home's HERS score is a relative performance score. The lower the number, the more energy efficient the home. To learn more, visit [www.hersindex.com](http://www.hersindex.com)

**Annual Savings**  
**\$6,479**

\*Relative to an average U.S. home

**Home:**  
 720 Eastern Ave, NE  
 Grand Rapids, MI 49503  
**Builder:**  
 Michigan Net Zero Homes LLC

**This home meets or exceeds the criteria of the following:**

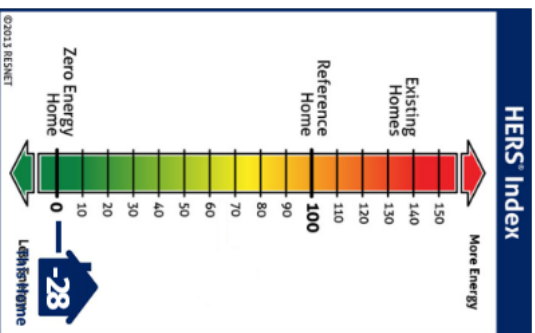
- ENERGY STAR v3.3
- ENERGY STAR v3.2
- ENERGY STAR v3.1
- ENERGY STAR v3
- 2015 Michigan Energy Code

**Your Home's Estimated Energy Use:**

Use [MBtu]	Annual Cost
Heating	\$461
Cooling	\$57
Hot Water	\$107
Lights/Appliances	\$895
Service Charges	\$96
Generation (e.g. Solar)	-\$1,520
<b>Total:</b>	<b>-\$26.9</b>

### Home Feature Summary:

Home Type:	Single family detached
Model:	N/A
Community:	N/A
Conditioned Floor Area:	1,512 ft <sup>2</sup>
Number of Bedrooms:	3
Primary Heating System:	Air Source Heat Pump • Electric • 10.4 HSPF2
Primary Cooling System:	Air Source Heat Pump • Electric • 26.3 SEER2
Primary Water Heating:	Residential Water Heater • Electric • 3.7 UEF
House Tightness:	158 CFM50 (0.40 ACH50)
Ventilation:	125 CFM • 63 Watts • ERV
Duct Leakage to Outside:	Forced Air Ductless
Above Grade Walls:	R-49
Ceiling:	Vaulted Roof / Exposed Exterior, R-88
Window Type:	U-Value: 0.13, SHGC: 0.36
Foundation Walls:	N/A
Framed Floor:	N/A



### Rating Completed by:

**Energy Rater:** Jenny Rempert  
 RESNET ID: 8270545

**Rating Company:** Eco Achievers  
 415 North Sangamon Street, Chicago IL 60642

**Rating Provider:** Building Efficiency Resources  
 PO Box 1769 Brevard, NC 28712  
 800-399-9620



Jenny Rempert, Certified Energy Rater  
 Date: 1/6/26 at 12:41 PM



# ENERGY STAR V3.1 Home Report



**Property**  
720 Eastern Ave, NE  
Grand Rapids, MI 49503

**Organization**  
Eco Achievers  
Jenny Rempert

**Inspection Status**  
2025-11-07  
Rater ID (RTIN): 8270545  
RESNET Registered  
(Confirmed)

MiNetZero Home- 720 Eastern Ave  
MiNetZero

**Builder**  
Michigan Net Zero Homes  
LLC

## Mandatory Requirements

- ✓ Duct leakage at post construction better than or equal to applicable requirements.
- ✓ Total building thermal envelope UA meets or exceeds applicable requirements.
- ✓ Slab on Grade Insulation must be > R-5, and at IECC 2009 Depth for Climate Zones 4 and above.
- ✓ Envelope insulation achieves RESNET Grade I installation, or uses exceptions in footnote 5.
- ✓ Total window thermal properties meet or exceed the applicable requirements
- ✓ Duct insulation meets the EPA minimum requirements of R-6.
- ✓ Mechanical ventilation system is installed in the home.
- ✓ ENERGY STAR Checklists fully verified and complete.

## ERI (HERS) Index Target

Reference Home ERI (HERS)	68
SAF (Size Adjustment Factor)	1.00
SAF Adjusted ERI (HERS) Target	<u>68</u>
As Designed Home ERI (HERS)	-28
As Designed Home ERI (HERS) w/o PV	28

## Normalized, Modified End-Use Loads (MBtu / year)

	ENERGY STAR	As Designed
Heating	35.9	9.9
Cooling	3.8	1.8
Water Heating	10.6	1.7
Lights and Appliances	18.0	15.7
<b>Total</b>	<b>68.3</b>	<b>29.1</b>



This home **MEETS** or **EXCEEDS** the energy efficiency requirements for designation as an EPA ENERGY STAR Qualified Home under Version 3.1

## Pollution Prevented

Type of Emissions	Reduction
Carbon Dioxide (CO <sub>2</sub> ) - tons/yr	22.3

## Energy Cost Savings

	\$/yr
Heating	1,693
Cooling	63
Water Heating	556
Lights & Appliances	130
<b>Generation Savings</b>	<b>1,532</b>
<b>Total</b>	<b>3,975</b>

The energy savings and pollution prevented are calculated by comparing the Rated Home to the ENERGY STAR Version 3.1 Reference Home as defined in the ENERGY STAR Qualified Homes ERI (HERS) Target Procedure for National Program Requirements, Version 3.1 promulgated by the Environmental Protection Agency (EPA). In accordance with the ANSI/RESNET/ICC 301 Standard, building inputs affecting setpoints infiltration rates, window shading and the existence of mechanical systems may have been changed prior to calculating loads

# LEED for Homes Source Energy Budget



## Property

720 Eastern Ave, NE  
Grand Rapids, MI 49503

MiNetZero Home- 720 Eastern Ave  
MiNetZero

## Organization

Eco Achievers  
Jenny Rempert

## Builder

Michigan Net Zero Homes  
LLC

## Inspection Status

2025-11-07  
Rater ID (RTIN): 8270545  
RESNET Registered  
(Confirmed)

**This home will consume 118% less source energy than the LEED Source Energy Budget limit.**

### Source Energy Consumption (MBtu / year)\*

	LEED Reference	As Designed
Heating	391.3	22.7
Cooling	9.4	2.8
Hot Water	38.8	6.0
Lights and Appliances	68.3	50.3
Onsite Generation	0.0	-171.5
<b>Total</b>	<b>507.7</b>	<b>-89.7</b>

\*Source Energy is determined by multiplying site energy electric use by 3.2 and fossil fuel use by 1.05. Note that if there are major energy consumers not included in this energy rating (e.g. pool pumps), they must be included separately.

### Home Feature Summary:

Home Type:	Single family detached
Model:	N/A
Community:	N/A
Conditioned Floor Area:	1,512 ft <sup>2</sup>
Number of Bedrooms:	3
Primary Heating System:	Air Source Heat Pump • Electric • 10.4 HSPF2
Primary Cooling System:	Air Source Heat Pump • Electric • 26.3 SEER2
Primary Water Heating:	Residential Water Heater • Electric • 3.7 UEF
House Tightness:	158 CFM50 (0.40 ACH50)
Ventilation:	125 CFM • 63 Watts • ERV
Duct Leakage to Outside:	Forced Air Ductless
Above Grade Walls:	R-49
Ceiling:	Vaulted Roof / Exposed Exterior, R-88
Window Type:	U-Value: 0.13, SHGC: 0.36
Foundation Walls:	N/A
Framed Floor:	N/A

# Building Summary

**Property**  
720 Eastern Ave, NE  
Grand Rapids, MI 49503

**Organization**  
Eco Achievers  
Jenny Rempert

**Inspection Status**  
2025-11-07  
Rater ID (RTIN): 8270545  
RESNET Registered (Confirmed)



MiNetZero Home- 720 Eastern Ave  
MiNetZero

**Builder**  
Michigan Net Zero Homes LLC

## General Building Information

Number Of Bedrooms: 3	Number Of Floors: 2
Conditioned Floor Area [sq. ft.]: 1,512	Has Electric Vehicle Ready Space: Yes
Unconditioned, attached garage? No	Conditioned Volume [cu. ft.]: 23,616
Total Units in Building: 1	Residence Type: Single family detached
Number of Floors in Building: N/A	Floor Number: N/A
Model: N/A	Community:
RESNET/IECC 2006-2018 Climate Zone: 5A	IECC 2021 Climate Zone: 5A

## Envelope Components

### Slab

Name	Library Type	Perimeter	Floor Grade	Carpet R	Exposed Masonry Area	Surface Area	Location	Enclosing
Slab	19" Glavel insulation	144	On Grade	0	0	1,040.0 ft²	Exposed Exterior	Conditioned Space

### Slab Library List

Name	Wall Construction Type	Slab Completely Insulated?	Underslab Insulation Width [ft]	Perimeter Insulation Depth [ft]	Perimeter Insulation R Value	Perimeter Insulation Is Exterior	Thermal Break	Effective R-value
19" Glavel insulation	Wood Frame / Other	Yes	0	3.5	6.8	Yes	No	32.30

### Wall

Name	Library Type	Orientation	Surface Color	Solar Absorptance	Surface Area	Location	Effective R-value
Exterior Walls	MiNet0 ext wall	Unspecified	Medium	0.75	2,802.0 ft²	Exposed Exterior	49.852

### Glazing

Name	Library Type	Wall Assignment	Foundation Wall Assignment	Is Operable	Overhang Depth	Overhang Ft To Top	Overhang Ft To Bottom	Orientation	Surface Area
EAST W08	.13/.36	Exterior Walls		Yes	0	0	0	East	13.0 ft²
EAST W14	.13/.36	Exterior Walls		Yes	0	0	0	East	26.0 ft²
NORTH W03	.13/.36	Exterior Walls		Yes	0	0	0	North	26.0 ft²
NORTH W07	.13/.36	Exterior Walls		Yes	0	0	0	North	12.0 ft²
NORTH W10 (door)	.17/.39	Exterior Walls		Yes	4	1.33	8.33	North	23.3 ft²
NORTH W12	.13/.36	Exterior Walls		Yes	1.33	2.33	4.33	North	12.3 ft²
NORTH W13	.13/.36	Exterior Walls		Yes	1.33	2.25	6.25	North	24.0 ft²
NORTH W15	.13/.36	Exterior Walls		Yes	1.33	2.33	4.33	North	12.3 ft²
SOUTH W04	.13/.36	Exterior Walls		Yes	1.94	0	4.33	South	13.0 ft²
SOUTH W05	.13/.36	Exterior Walls		Yes	1.94	0	4.33	South	26.0 ft²
SOUTH W06	.13/.36	Exterior Walls		Yes	1.94	0	4.33	South	13.0 ft²
SOUTH W09	.13/.36	Exterior Walls		Yes	1.94	0	4.33	South	13.0 ft²
WEST W01	.13/.36	Exterior Walls		Yes	9.33	0.5	6	West	33.0 ft²
WEST W02 (door)	.17/.39	Exterior Walls		Yes	9.33	0.5	7.5	West	23.3 ft²
WEST W11	.13/.36	Exterior Walls		Yes	0	0	0	West	26.0 ft²

# Building Summary

**Property**  
720 Eastern Ave, NE  
Grand Rapids, MI 49503

**Project & Plan**  
MiNetZero Home- 720 Eastern Ave  
MiNetZero

**Organization**  
Eco Achievers  
Jenny Rempert

**Inspection Status**  
2025-11-07 Rater ID (RTIN): 827054  
**Builder**  
Michigan Net Zero Homes LLC

## Glazing Library List

Name	Shgc	U-factor
.13/.36	0.36	0.130
.17/.39	0.39	0.170

## Roof Insulation

Name	Library Type	Attic Exterior Area [ft <sup>2</sup> ]	Clay or Concrete Roof Tiles	Does the Roof have Eaves?	Effective R-Value after eaves	Surface Color	Solar Absorptance	Surface Area	Location
Cathedral Ceiling	2x4,12" open web,2x4	1,474	No	No	-	Medium	0.75	1,474.0 ft <sup>2</sup>	Vaulted Roof / Exposed Exterior

## Roof Insulation Library List

Name	Has Radiant Barrier	Effective R-value
2x4,12" open web,2x4	No	87.599

## Whole House Infiltration

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

## Mechanicals, Lights & Water

### Mechanical Ventilation

Ventilation Type	Ventilation Rate [ft <sup>3</sup> / Minute]	Operational hours per day	Fan Watts	Runs once every three hours	Energy Recovery Percent	Model Number	Manufacturer
ERV	125 CFM	24	63 Watts	Yes	82	COMFOAIR Q450	ZEHNDER

### 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

### Solar Generation

Index	Track Mode	Nameplate Capacity (kWdc)	Derate Factor	Orientation (deg)	Tilt (deg)
1	Fixed	12.5 kW	0.83	180°	45°

### Dehumidifier

Name	Library Type	Equipment Type	Capacity [pints/day]	Integrated Energy Factor [iters/kWh]
Dehumidifier	MiNetZero Dehumidifier	Portable	50	1.79999995

### Conditioning Equipment

Name	Library Type	Serial Number	Heating Percent Load	Cooling Percent Load	Hot Water Percent Load	Location
HP	MiNetZero		100%	100%	0%	Conditioned Space
Water Heater	43 gal. 3.7 UEF		0%	0%	100%	Conditioned Space

# Building Summary

**Property**  
720 Eastern Ave, NE  
Grand Rapids, MI 49503

**Project & Plan**  
MiNetZero Home- 720 Eastern Ave  
MiNetZero

**Organization**  
Eco Achievers  
Jenny Rempert

**Inspection Status**  
2025-11-07 Rater ID (RTIN): 827054  
**Builder**  
Michigan Net Zero Homes LLC

## Equipment Type: 43 gal. 3.7 UEF

Equipment Type	Residential Water Heater
Fuel Type	Electric
Distribution Type	Hydronic Delivery (Radiant)
Hot Water Efficiency	3.7 UEF
Tank Capacity (gal.)	43

## Equipment Type: MiNetZero

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air Ductless
Motor Type	ECM (Variable Speed)
Heat Pump System Type	Ducted Split System
Heating Efficiency	10.4 HSPF2
Heating Capacity [kBtu/h]	12.3
Backup Fuel Type	Electric
Switchover Temperature [°F]	0
Backup Heating Efficiency	1 Adjusted Efficiency
Use default Supplemental Heat	Yes
Cooling Efficiency	26.3 SEER2
Cooling Capacity [kBtu/h]	12

## Distribution System

Distribution Type	Forced Air Ductless
Heating Equipment	HP
Cooling Equipment	HP
Is All Equipment In Conditioned Space	Yes
Leakage Default	HERS Default Leakage
Duct System Efficiency	1

## Ceiling Fan

Has Ceiling Fan	Yes
Cfm Per Watt	85

## Water Distribution

Water Fixture Type	Low-flow
Use Default Hot Water Pipe Length	No
Hot Water Pipe Length [ft]	28
At Least R3 Pipe Insulation?	Yes
Hot Water Recirculation System?	No
Drain Water Heat Recovery?	No

## Appliances & Notes

### Clothes Dryer

Cef	6.97
Fuel Type	Electric
Field Utilization	Moisture Sensing
Is Outside Conditioned Space	No
Defaults Type	Custom
Is Ventless	Yes
Is Heat Pump	Yes
Clothes Dryer Available	Yes

### Clothes Washer

Label Energy Rating	118 kWh/Year
Annual Gas Cost	\$11.00
Electric Rate	\$0.14/kWh
Gas Rate	\$1.21/Therm
Capacity	2.4
Imef	2.72
Defaults Type	Custom
Load Type	Front-load
Loads Per Week	6
Is Outside Conditioned Space	No
Clothes Washer Available	Yes

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## Dishwasher

Dishwasher Defaults Type	Custom
Dishwasher Size	Standard
Dishwasher Efficiency	240 kWh
Annual Gas Cost	\$26.00
Electric Rate	\$0.14/kWh
Gas Rate	\$1.21/Therm
Is Outside Conditioned Space	No
Dishwasher Available	Yes

## Appliances and Controls

Programmable thermostat?	Yes
Range/Oven Fuel	Electric
Convection Oven?	Yes
Induction Range?	Yes
Range/Oven Outside Conditioned Space?	No
Refrigerator Consumption	568 kWh/Year
Refrigerator Outside Conditioned Space?	No

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## Notes

GL 11/17/25 QA notes: Print permission enabled for this ESv32 rating file

Notes for Consumers Energy: no gas, no applicable Model/Community/Lot names or numbers.

11/11/25 JR -FINAL UPDATES

### General Info

updated CFA to exclude areas where ceiling <7"  
using total volume and enclosure area (to secondary air barrier) - closer alignment to WUFI model  
checked box for EV

### Envelope

updated areas for everything  
Rim Joist is N/A because the AGW type is continuous throughout the whole wall. The floor joists do not interrupt either air barrier or the wall cavity (basically one tall wall from ground to attic).

### Fenestration

window values verified on site

### Mechanical

updated HP, DWH, ERV  
no AHRI # available for this DWH  
ERV energy recovery % based on ASRE @ 123 CFM heating  
measured flow rate: average between supply (127.2) and exhaust (122.7).  
Measured in duct at unit.  
Added dehumidifier and ceiling fans  
ceiling fan CFM/W based on high speed

### Water

check pipe ins & length

### Lighting & Appliances

updated appliances  
no Energy Guide available yet for washer

### Infiltration

average between depressurization (129 CFM) and pressurization (187 CFM)

### Onsite Generation

#### Codes & Programs

ESTAR Cx checklist not required for this system type  
switched to ZERH v2

JR 2/13/24

### Envelope

Compacted Glavel is R-1.7 per inch, uncompacted Glavel is R-1.3 per inch.  
Compacted Glavel of slab is 19", R-32.3 total.  
using R-1 for 3.5" airspace in wall

## Notes (continued)

Rim joist is same R-value as wall, minus 3.5" service cavity

### Fenestration

windows: 0.13/0.36  
doors: 0.17/0.39  
doors are ~70% glazing. U-val includes framing.

### Mechanical

need to confirm backup elec heat /switchover temp  
does ERV need to be included in heating/cooling loads? No info about capacity in plans/product lit  
Using ASRE and watts at 138 CFM heating per HVI. Actual constant rate is 120 CFM.

### Water

### Appliances

updated with 1/25 CD set (using plan dishwasher, not spec)

### Infiltration

0.060 CFM/sf shell threshold per PHIUS

### Onsite Generation

derate factor is default

**Components Not Found:** Foundation Wall, Foundation Wall Library List, Framed Floor, Rim Joist, Skylight, Opaque Door, Onsite Generation, Whole House Fan, Whole House Fan Library List, HVAC Grading (Not Conducted)