



## PARTICIPANT INFORMATION

Company Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_ Website: \_\_\_\_\_

## CATEGORY ENTRY (check one category)

- |  |   |
|--|---|
| <input type="checkbox"/> Single Family 'Small House' under 900 sq. ft. | <input type="checkbox"/> Commercial/Industrial/Institutional Buildings under 10,000 sq. ft. |
| <input type="checkbox"/> Single Family Homes over 3,000 sq. ft.        | <input type="checkbox"/> Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.  |
| <input type="checkbox"/> Single Family Homes under 3,000 sq. ft.       | <input type="checkbox"/> Renovations  |
| <input type="checkbox"/> Multifamily                                   | <input type="checkbox"/> Affordable Housing   |
| <input type="checkbox"/> Agricultural                                  | <input type="checkbox"/> High Performance (multiple category entry permitted)               |

## PROJECT INFORMATION

Project Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Date completed: \_\_\_\_\_

Total cost of project (exclusive of land): \_\_\_\_\_

Dimensions of building (all floors of multi-story building): \_\_\_\_\_

Asking price/purchase price (Affordable Housing only): \_\_\_\_\_

Total sq. ft. of conditioned space: \_\_\_\_\_

## BUILT BY (if different than applicant)

Company Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

## PANELS MANUFACTURED BY (SIPA members only)

Company Name: \_\_\_\_\_

**Continued**

## ***SIPA Building Excellence Application*** (Page 2 of 4)



**DESIGNED BY** (if different than applicant – SIPA will only recognize members)

Company Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

**Please answer each question with as much detail as possible to help in the judging process.**

**Attach additional sheets if necessary.**

Describe the end use of the building:

\_\_\_\_\_

How did SIP construction help you get this job?

\_\_\_\_\_

SIP wall thickness and core material: \_\_\_\_\_

SIP roof thickness and core material: \_\_\_\_\_

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy?

\_\_\_\_\_

Describe any innovative design elements or structural engineering involved:

\_\_\_\_\_

***Continued***

## ***SIPA Building Excellence Application*** (Page 3 of 4)



Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, WELL, Passive House, Green Globes or local green building programs. Only list certifications that are completed:

---

HERS Index *(required only for High Performance Category and recommended for residential projects):*

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Blower door test results (ACH50) *(required only for High Performance Category and recommended for residential projects):*

---

Energy use intensity in kBtu/ft<sup>2</sup> *(required only for High Performance Category and recommended for commercial projects):*

---

Describe the HVAC system used on the project:

---

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. *(judged only for High Performance Category)*

---

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar *(judged only for High Performance Category):*

---

Were any solar panels installed on the project? If so, indicate the size of the system *(judged only for High Performance Category):*

## SIPA Building Excellence Application (Page 4 of 4)



Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc. *(judged only for High Performance Category)*:

---

Any additional comments on the project:

---

### CHECKLIST

- ☐ My company is a SIPA member. Panels for this project were manufactured by a SIPA member.
- ☐ I have answered ALL the questions completely
- ☐ I have enclosed the two required electronic images of the completed project meeting the requirements stated in the SIPA Building Excellence Awards guidelines

**PLEASE CONFIRM:** I have read and understand the rules for this competition. This entry is structural insulated panel construction as defined in the SIPA Building Excellence Awards guidelines. I understand by making this submission that my pictures will be used by the Structural Insulated Panel Association (SIPA) to promote the use of structural insulated panels. I hereby give permission to SIPA to use the enclosed pictures for any use they see fit in that endeavor. I understand that where possible, SIPA will give credit for pictures used to my company as listed above.

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

Date: \_\_\_\_\_

---

Entries that do not contain all required materials or are received after **January 11, 2019** will not be considered

Complete application and submit electronically to [info@sips.org](mailto:info@sips.org)

Or send hard copy applications to SIPA office: P.O. Box 39848, Ft. Lauderdale, FL 33339



### BUILDING EXCELLENCE AWARD SPONSOR



**MITSUBISHI  
ELECTRIC**

COOLING & HEATING



2300sq’ 5 bedroom, 2 story single family house

SIPS panel construction from Premier SIPS Puyallup

Specific design loads:

Roof live: 20psf

Roof+ceiling dead: 15psf

Roof snow 25psf

Floor live 40psf

Floor dead 15psf

Exterior wall dead: 10psf

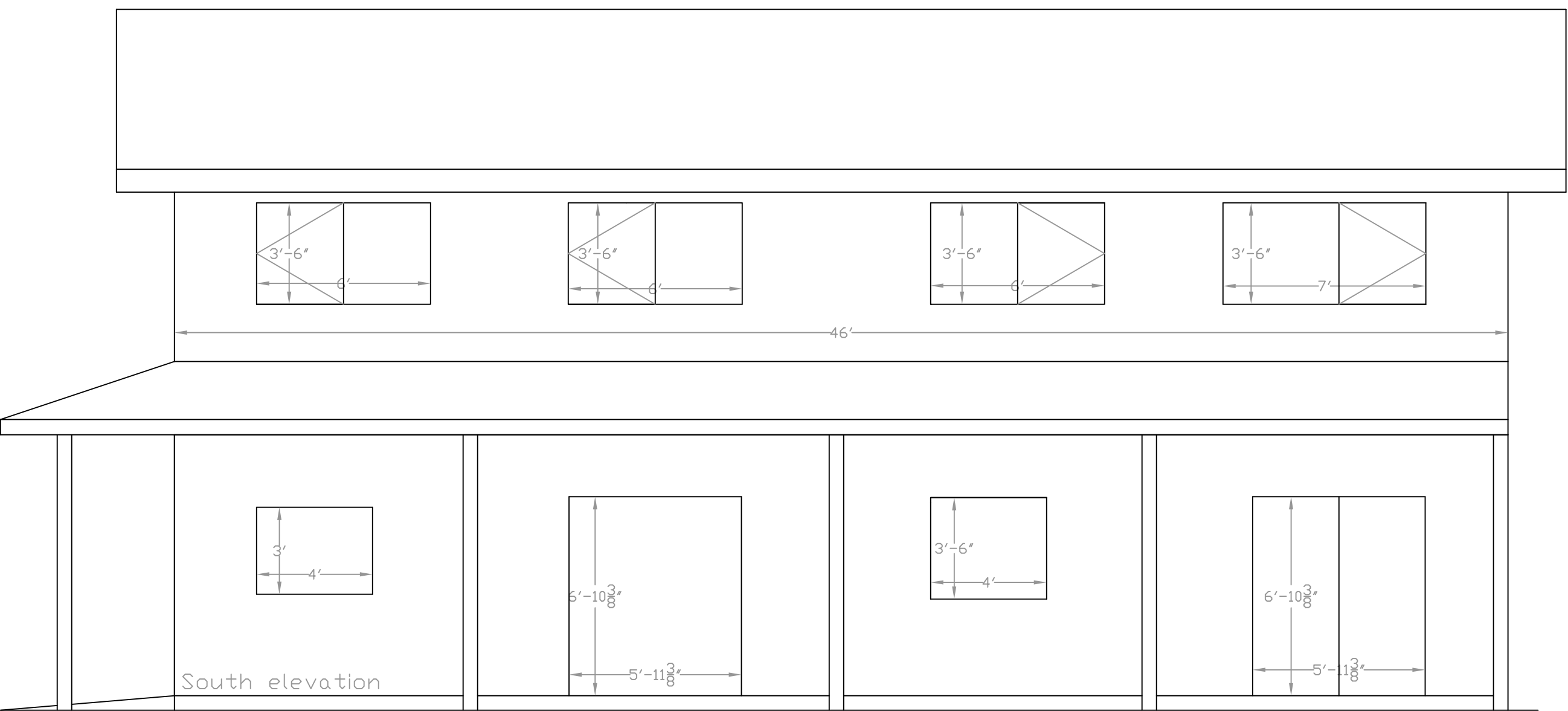
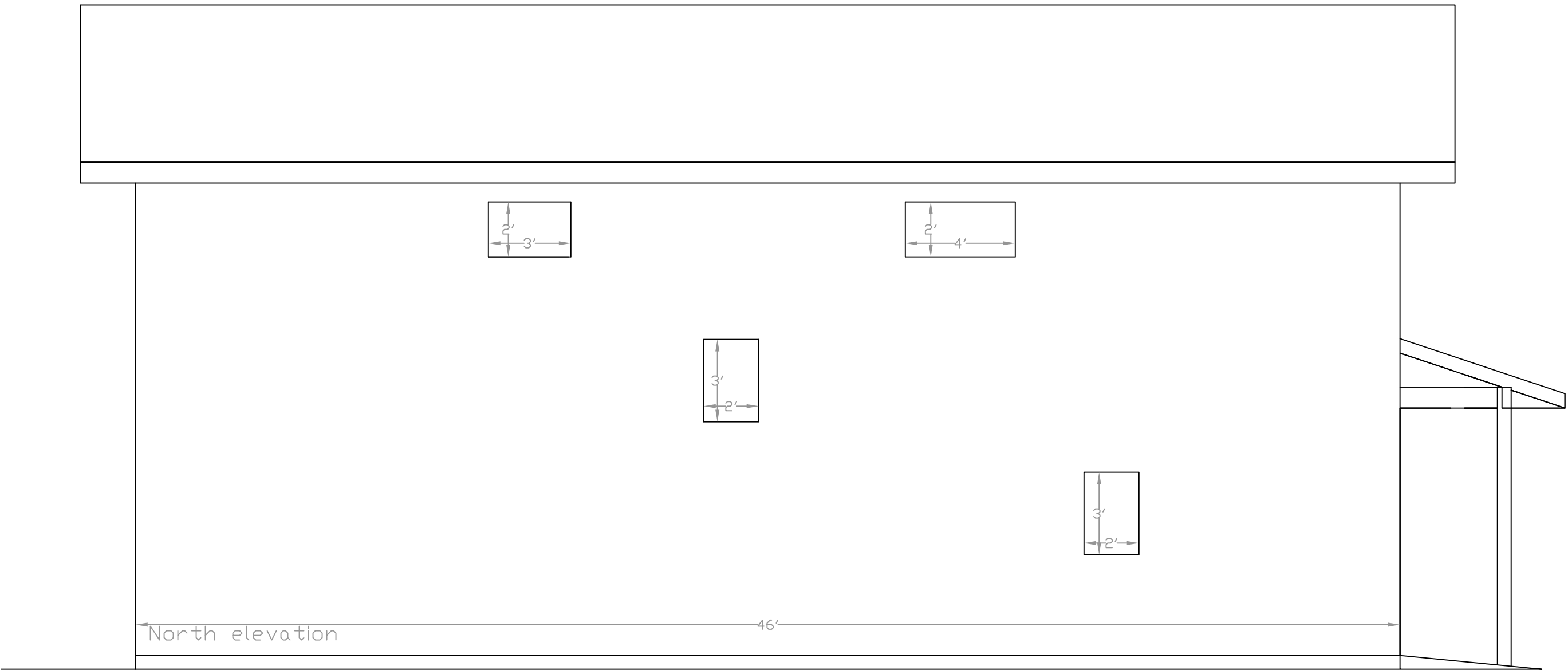
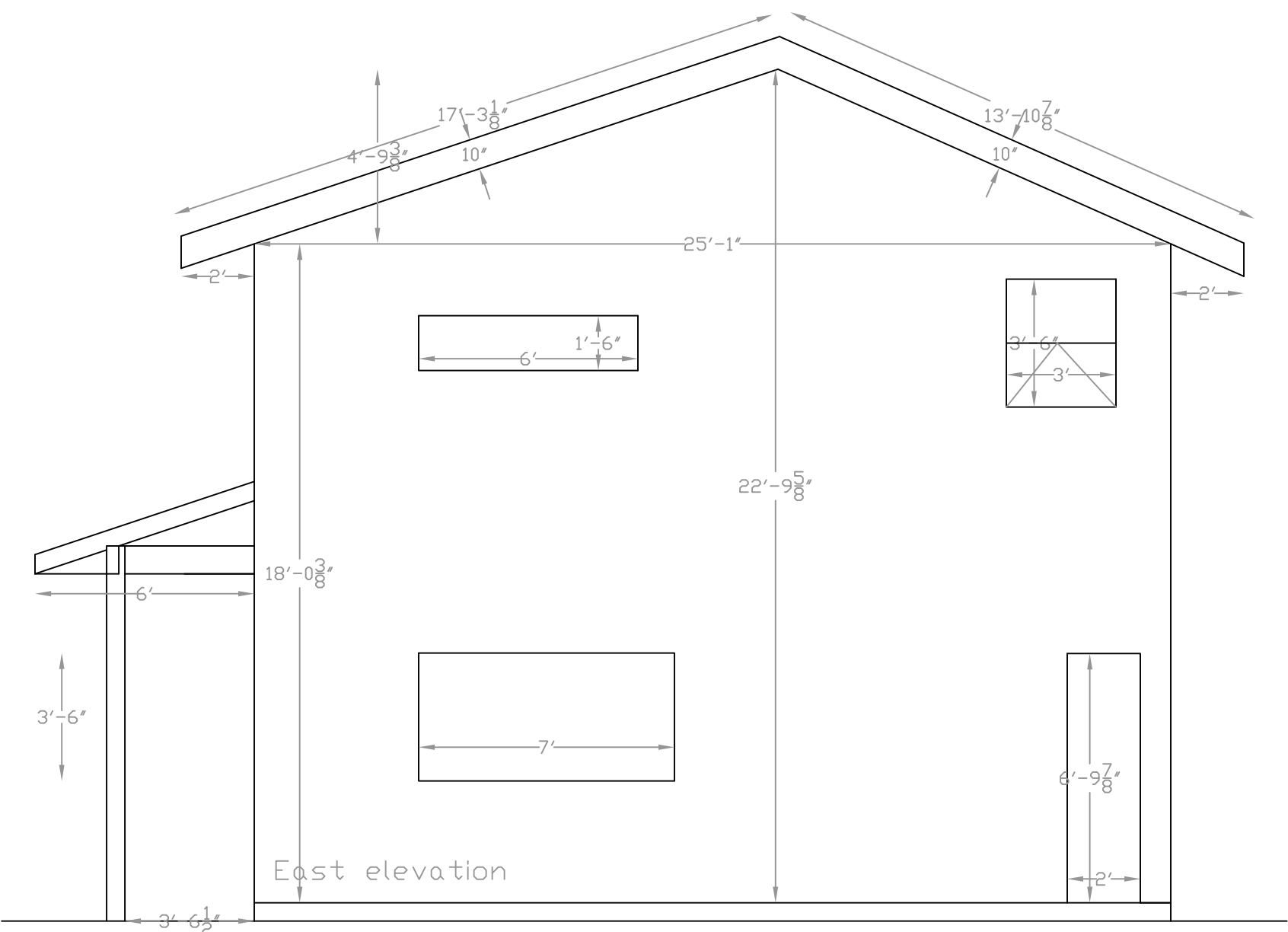
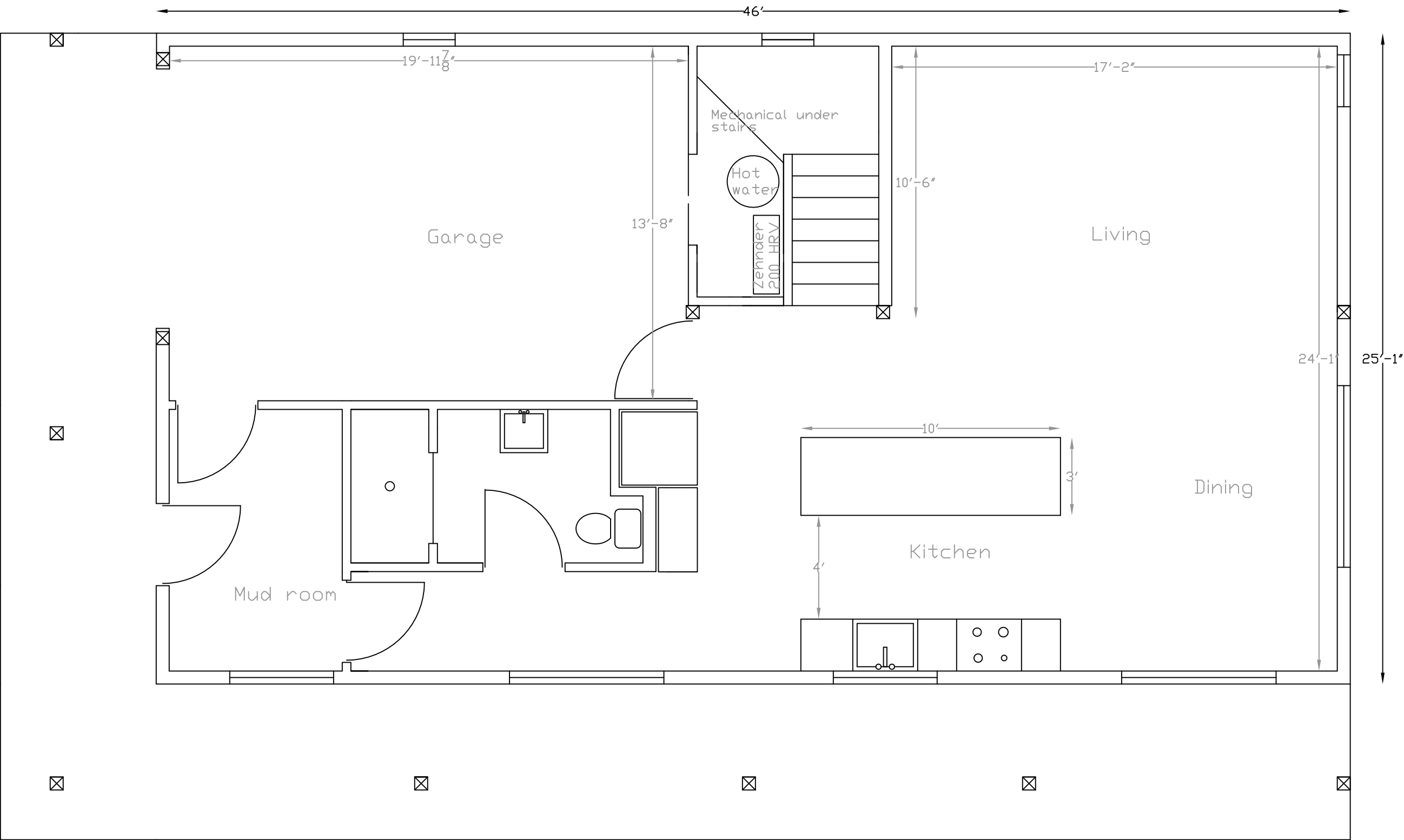
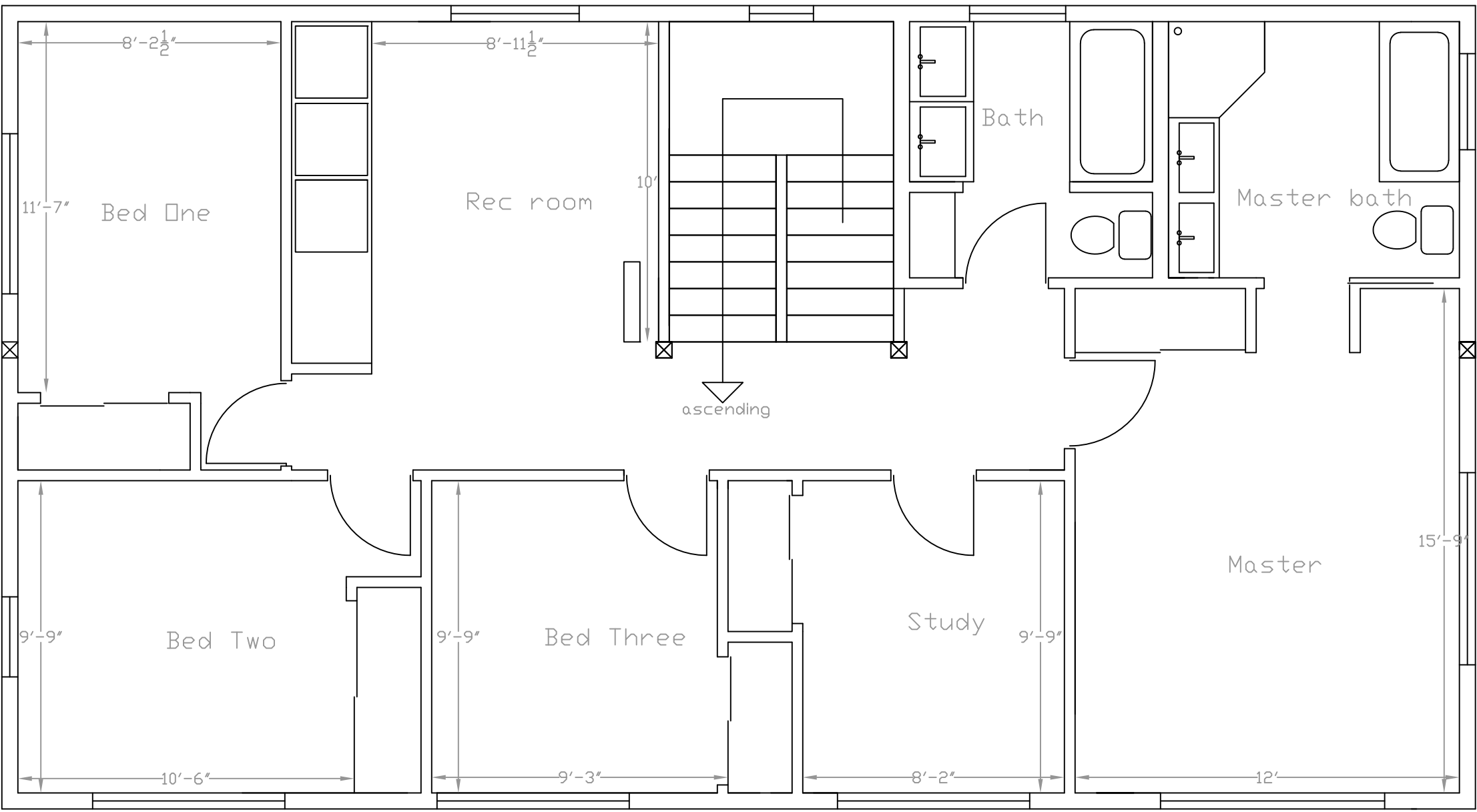
Interior wall dead: 7psf

Seismic factors: Ss=1.085 Si1=0.407

Seismic Des Category: "D"

Wind exposure: 'B' 3 sec gust 110mph

Assumed allowable soil bearing pressure  
=1500psf





# Certificate of Merit

THIS IS TO CERTIFY THAT THE PROJECT AT

**43937 SE 80th St, North Bend, WA 98045**

has qualified for a rating of **5-Star** in the Built Green program. Built Green certification signifies that a holistic, environmentally friendly approach was utilized in creating this home.

SITE & WATER



ENERGY  
EFFICIENCY



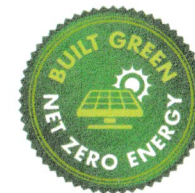
HEALTH &  
INDOOR AIR QUALITY



MATERIALS  
EFFICIENCY



HOMEOWNER  
EDUCATION



  
T C Legend Homes

  
Date

  
Built Green Program Manager

October 09, 2018

Date

ID# 2018SF375  
builtgreen.net

In Partnership with:



# Performance Report

**Property**

Larson  
43937 SE 80th  
North Bend, WA 98045

**Organization**

Ecoe Company  
3607318309  
Elizabeth Coe

**HERS**

Confirmed  
9/25/18  
Rater ID:5849918

**Weather:Seattle, WA**

43937 SE 80th\_North Bend  
43937 SE 80th\_North  
Bend\_Reg.blg

**Builder**

TC Legend Homes

**Annual Load****MMBtu/yr**

Heating	8.0
Cooling	2.6
Water Heating	12.6
Water Heating w/out Tank Loss	10.6

**Annual Consumption****MMBtu/yr**

Heating	2.5
Cooling	0.5
Water Heating	3.4
Lights & Appliances	18.7
Photovoltaics	-24.8
<b>Total</b>	<b>0.3</b>

**Annual Energy Cost****\$/yr**

Heating	63
Cooling	13
Water Heating	84
Lights & Appliances	465
Photovoltaics	-617
Service Charges	84
<b>Total</b>	<b>92</b>

**Design Loads****kBtu/hr**

Space Heating	8.5
Space Cooling	9.9

**Utility Rates**

Electricity	Puget Sound-Electric*****
-------------	---------------------------

**REM/Rate - Residential Energy Analysis and Rating Software v15.7**

This information does not constitute any warranty of energy costs or savings.

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# Performance Report

## Property

Larson  
43937 SE 80th  
North Bend, WA 98045

## Organization

Ecoe Company  
3607318309  
Elizabeth Coe

## HERS

Confirmed  
9/25/18  
Rater ID:5849918

Weather:Seattle, WA

43937 SE 80th\_North Bend

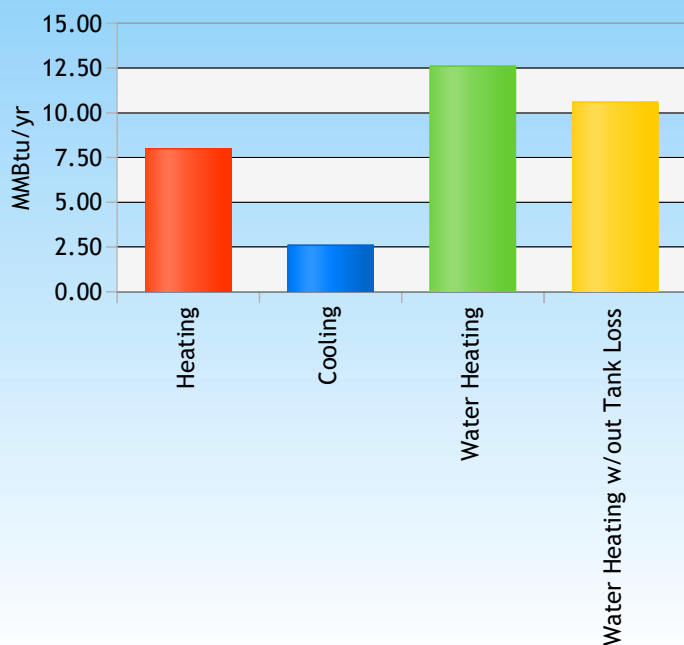
43937 SE 80th\_North

Bend\_Reg.blg

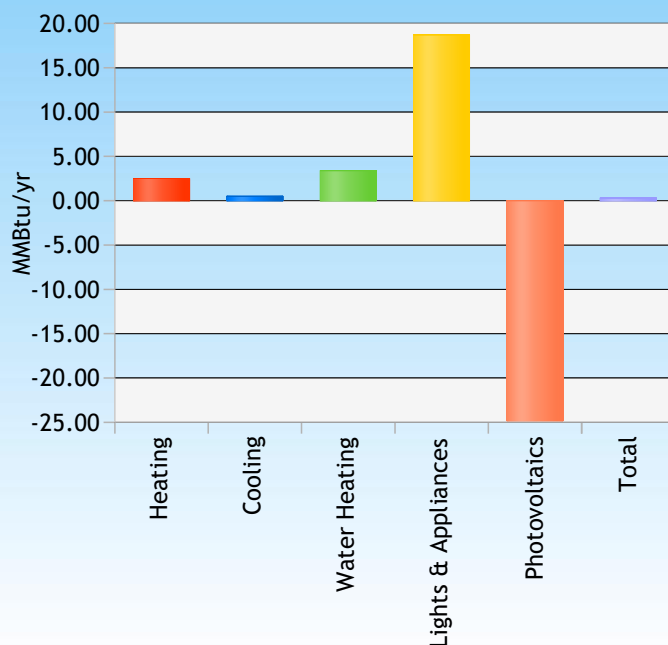
## Builder

TC Legend Homes

### Annual Load



### Annual Consumption



# Performance Report

## Property

Larson  
43937 SE 80th  
North Bend, WA 98045

## Organization

Ecoe Company  
3607318309  
Elizabeth Coe

## HERS

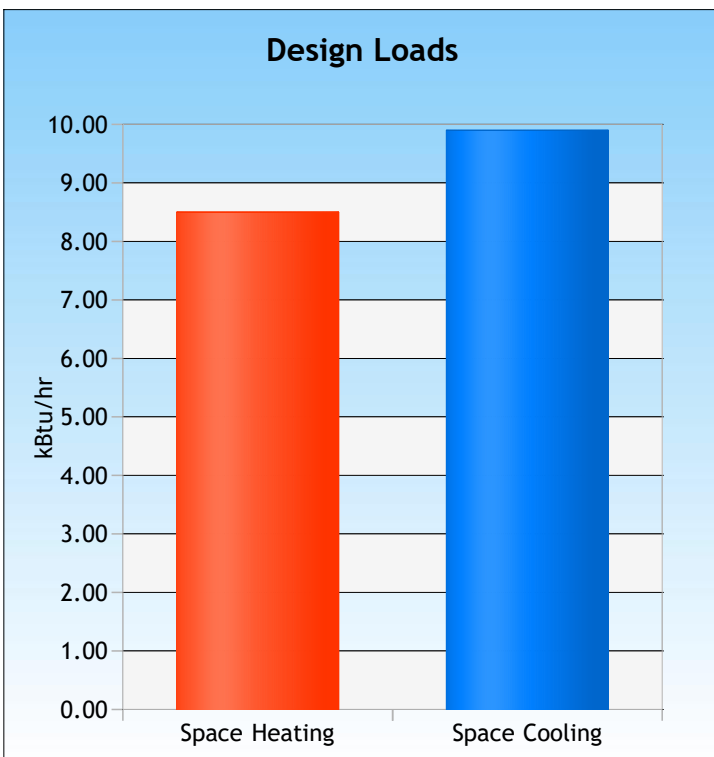
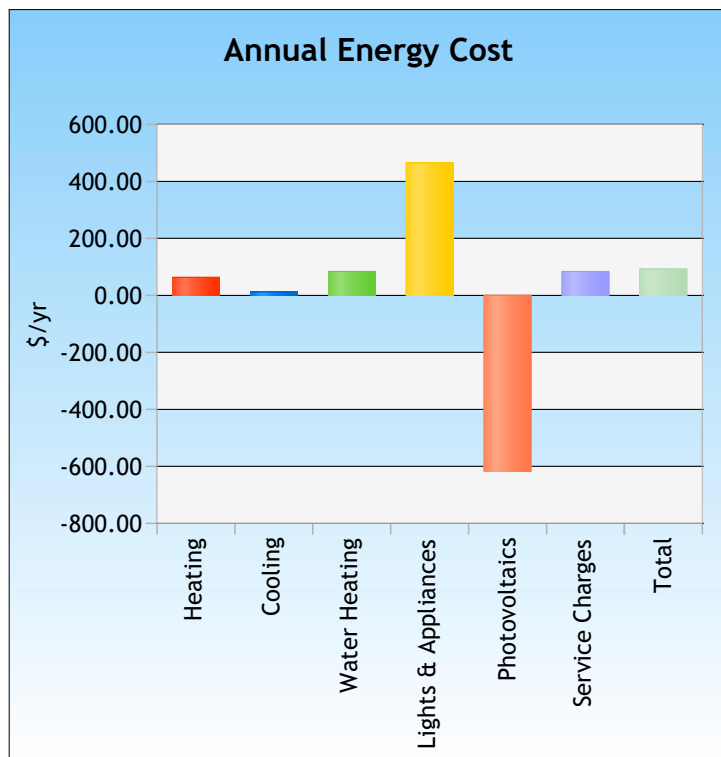
Confirmed  
9/25/18  
Rater ID:5849918

## Weather:Seattle, WA

43937 SE 80th\_North Bend  
43937 SE 80th\_North  
Bend\_Reg.blg

## Builder

TC Legend Homes





**ZERO**  
ENERGY READY HOME

YOUR HOME WAS DESIGNED, ENGINEERED,  
AND CONSTRUCTED IN CONFORMANCE TO  
U.S. DEPARTMENT OF ENERGY (DOE)  
GUIDELINES FOR EXTRAORDINARY  
LEVELS OF EXCELLENCE AND QUALITY.

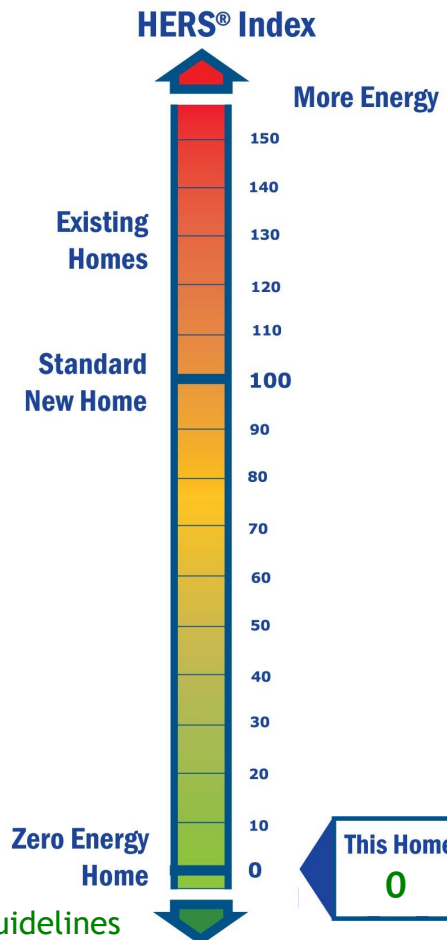
**This home built at** 43937 SE 80th  
**By** TC Legend Homes  
**Verified by** Elizabeth Coe  
  
an independent professional  
organization, to meet or exceed  
strict home performance  
guidelines set by  
The U.S. Department of Energy  
on 9/27/2018

THIS HOME MEETS OR EXCEEDS THE MINIMUM  
CRITERIA FOR THE FOLLOWING:

DOE Zero Energy Ready Home Quality Management Guidelines

REM/Rate - Residential Energy Analysis and  
Rating Software v15.7

SAM RASHKIN, CHIEF ARCHITECT  
BUILDING TECHNOLOGIES  
U.S. DEPARTMENT OF ENERGY



# DOE Zero Energy Ready Home

Energy Performance	
House Type	DOE Zero Energy Ready Home Builder Partner ID#
Single-family detached	634
Year built	Square footage of Conditioned Space including Basement
2018	2026.0
Number of Bedrooms	Square footage of Conditioned Space without Basement
5	2026.0
Site address (if not available, list the site Lot #)	Registered Builder
43937 SE 80th	TC Legend Homes
North Bend	Certified Rater
WA, 98045	Elizabeth Coe
HERS Index without On-site Generation	Date of Rating
34	9/25/18
HERS Index with On-site Generation	Rating Software
0	REM/Rate - v15.7
HERS Index of the Target Home using size adjustment factor	Estimated annual energy costs(\$)
59	92
Estimated annual energy use	Estimated annual energy savings
Electric: 96 kWh	Electric: 18294 kWh
Energy cost rates	Estimated annual emissions reductions
Electric: 0.08 \$/kWh	CO2: 2.6 tons / SO2: 1.7 lbs / NOx: 4.6 lbs

## DOE Zero Energy Ready Home Certification

As the certified Rater for this house, I certify this house meets/complies with all mandatory requirements of the DOE Zero Energy Ready home guidelines, including the following:

X	Compliance with all ENERGY STAR Qualified Homes Version 3.2 WA requirements and checklists
X	Compliance with Mandatory Fenestration Requirements
X	Compliance with Mandatory Insulation Requirements
X	Compliance with Mandatory Duct Location Requirements
X	Compliance with Mandatory Appliance Requirements
X	Compliance with Mandatory Lighting Requirements
X	Compliance with Mandatory Fan Efficiency Requirements
X	Compliance with Mandatory EPA Indoor airPLUS
X	Compliance with Mandatory Water Efficiency Requirements
X	Compliance with Mandatory Renewable Energy Ready Solar Electric Requirements
	This home was qualified via sampling in lieu of testing, in accordance with allowable sampling provisions as stated in the DOE Zero Energy Ready Home National Program Requirements

## Optional Compliance for Builder Recognition

I further certify that the following also apply to this house:

YES	NO	DON'T KNOW	Optional Home Builder Commitments for Recognition

\*Certification under the DOE Zero Energy Ready Home permits limited exceptions to full compliance with Indoor airPLUS. Builders seeking the Indoor airPLUS label must achieve full compliance with the Indoor airPLUS Verification Checklist.

**REM/Rate - Residential Energy Analysis and Rating Software v15.7**

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# DOE Zero Energy Ready Home

## Optional Compliance for Builder Recognition

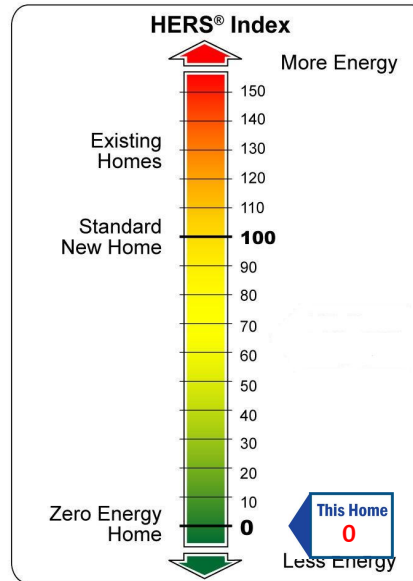
I further certify that the following also apply to this house:

YES	NO	DON'T KNOW	Optional Home Builder Commitments for Recognition
	X		Certified under the EPA WaterSense for New Homes Program
	X		Certified under the IBHS Fortified for Safer Living Program
X			Followed the DOE Zero Energy Ready Home Quality Management Guidelines
		X	The buyer of this home signed a waiver giving DOE Zero Energy Ready Home access to utility bill data for one year

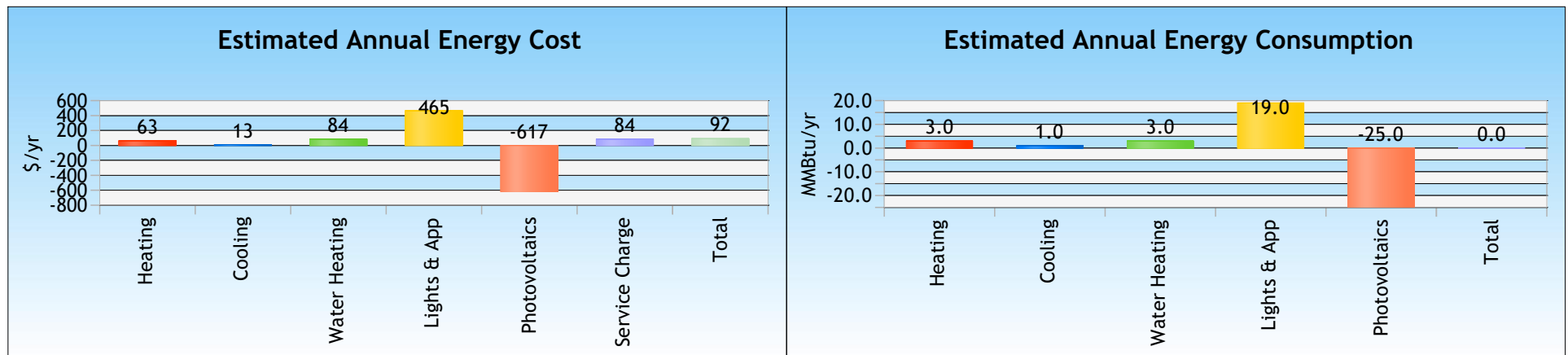
\*Certification under the DOE Zero Energy Ready Home permits limited exceptions to full compliance with Indoor airPLUS. Builders seeking the Indoor airPLUS label must achieve full compliance with the Indoor airPLUS Verification Checklist.



# HERS PERFORMANCE



# ENERGY RATING CERTIFICATE



Address 43937 SE 80th  
North Bend, WA 98045

House Type Single-family detached

Cond. Area 2026 sq. ft.

Rating No.

Issue Date September 27, 2018

Certification Inspected and Tested

Annual Estimates\*

Electric(kWh): 96

CO2 emissions(Tons): 0

Annual Savings\*\*: \$2018

\* Based on standard operating conditions

\*\* Based on a HERS 130 Index Home

TITLE

Company

Address

Certified Rater Elizabeth Coe

Rater ID 5849918

Registry ID 036802775

Rating Date 9/25/18

**REM/Rate - Residential Energy Analysis and Rating Software v15.7**

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The Home Energy Rating Standard Disclosure for this home is available from the rating provider.



# ENERGY STAR<sup>®</sup> CERTIFIED NEW HOME

**Builder Name:** TC Legend Homes  
**Permit Date/Number:**  
**Home Address:** 43937 SE 80th  
**North Bend, WA 98045**

**Rating Company:** Ecoe Company  
**Rater Identification Number:** 5849918  
**Rating Date:** 9/25/18  
**Version:** 3.2 WA, OR

## Standard Features of an ENERGY STAR Certified New Home

Your ENERGY STAR certified new home has been designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

### Thermal Enclosure System

A complete thermal enclosure system that includes comprehensive air sealing, quality-installed insulation and high-performing windows to deliver improved comfort and lower utility bills.



Air Infiltration Test: **Htg: 0.88 Clg: 0.88 ACH50**

Primary Insulation Levels:

**Ceiling: R-48.0**

**AGWall: R-29.0**

**Floor: R-30.0**

**Slab: R-20.0,  
R-20.0**

Primary Window Efficiency:

**U-Value: 0.170, SHGC: 0.330**

### Water Management System

A comprehensive water management system to protect roofs, walls, and foundations.



Flashing, a drainage plane, and site grading to move water from the roof to the ground and then away from the home.

Water-resistant materials on below-grade walls and underneath slabs to reduce the potential for water entering into the home.

Management of moisture levels in building materials during construction.

### Heating, Cooling, and Ventilation System

A high-efficiency heating, cooling system, and ventilation system that is designed and installed for optimal performance.



Total Duct Leakage:

**NA**

Duct Leakage to Outdoors:

**NA**

Primary Heating (System Type • Fuel Type • Efficiency):

**Electric, Htg: 9.3 HSPF. Clg: 18.0 SEER.**

Primary Cooling (System Type • Fuel Type • Efficiency):

**Electric, Htg: 9.3 HSPF. Clg: 18.0 SEER.**

### Energy Efficient Lighting and Appliances

Energy efficient products to help reduce utility bills, while providing high-quality performance.



ENERGY STAR Qualified Lighting: **0%**

ENERGY STAR Qualified Appliances and Fans:

**Refrigerators: 1**

**Dishwashers: 1**

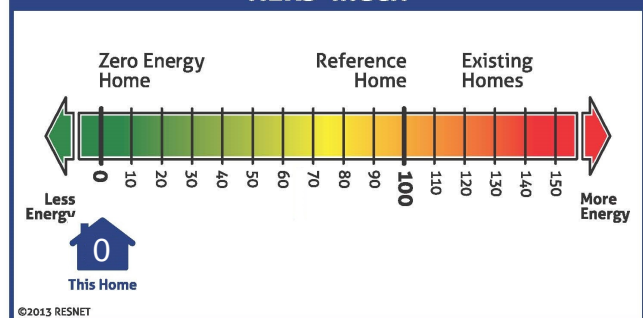
**Ceiling Fans: 0**

**Exhaust Fans: 1**

Primary Water Heater (System Type • Fuel Type • Efficiency):

**Heat pump, Electric, 3.20 EF, 65.0 Gal.**

## HERS<sup>®</sup> Index



The certificate provides a summary of the major energy efficiency and other construction features that contribute to this home earning the ENERGY STAR, including its Home Energy Rating System (HERS) score, as determined through independent inspection and verification performed by a trained professional. The home Energy Rating System is a nationally-recognized uniform measurement of the energy efficiency of homes.

Note that when a home contains multiple performance levels for a particular feature (e.g., window efficiency or insulation levels), the predominant value is shown. Also, homes may be certified to earn the ENERGY STAR using a sampling protocol, whereby one home is randomly selected from a set of homes for representative inspections and testing. In such cases, the features found in each home within the set are intended to meet or exceed the values presented on this certificate. The actual values for your home may differ, but offer equivalent or better performance.

This certificate was printed using REM/Rate - v15.7.  
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Learn more at [www.energystar.gov/homefeatures](http://www.energystar.gov/homefeatures)



# CERTIFIED NEW HOME

ENERGY STAR

Address:

**43937 SE 80th  
North Bend, WA**

Built by:

**TC Legend Homes**

Verified by:

**Elizabeth Coe**

Date:

**9/25/18**

ENERGY STAR® for Homes Version Number:

**Version 3.2 WA, OR**

Optional information:

**HERS Index: 0**

This home has been independently verified to meet EPA's strict  
guidelines for energy efficiency.

**Learn more at [energystar.gov](http://energystar.gov)**

# Home Energy Rating Certificate

## Property

Larson  
43937 SE 80th  
North Bend, WA 98045

## HERS

Rating Type: Confirmed  
Rating Date: 9/25/18  
Registry ID: 036802775

Certified Energy Rater: Elizabeth Coe  
Rating Number:

## HERS Index: 0

### General Information

Conditioned Area	2026 sq. ft.	House Type	Single-family detached
Conditioned Volume	20720 cubic ft.	Foundation	Slab
Bedrooms	5		

### Mechanical Systems Features

Air-source heat pump:	Electric, Htg: 9.3 HSPF. Clg: 18.0 SEER.
Water Heating:	Heat pump, Electric, 3.20 EF, 65.0 Gal.
Duct Leakage to Outside	NA
Ventilation System	Balanced: HRV, 120 cfm, 34.0 watts.
Programmable Thermostat	Heat=Yes; Cool=Yes

### Building Shell Features

Ceiling Flat	NA	Slab	R-20.0 Edge, R-20.0 Under
Sealed Attic	NA	Exposed Floor	R-30.0
Vaulted Ceiling	R-48.0	Window Type	U-Value: 0.170, SHGC: 0.330
Above Grade Walls	R-29.0	Infiltration Rate	Htg: 0.88 Clg: 0.88 ACH50
Foundation Walls	NA	Method	Blower door

### Lights and Appliance Features

Percent Interior Lighting	0.00	Range/Oven Fuel	Electric
Percent Garage Lighting	0.00	Clothes Dryer Fuel	Electric
Refrigerator (kWh/yr)	855	Clothes Dryer CEF	2.62
Dishwasher (kWh/yr)	269	Ceiling Fan (cfm/Watt)	0.00

### Estimated Annual Energy Cost

Use	MMBtu	Cost	Percent
Heating	2.5	\$63	68%
Cooling	0.5	\$13	14%
Hot Water	3.4	\$84	91%
Lights/Appliances	18.7	\$465	506%
Photovoltaics	-24.8	\$-617	-671%
Service Charges		\$84	91%
<b>Total</b>	<b>0.3</b>	<b>\$92</b>	<b>100%</b>

### Criteria

This home meets or exceeds the minimum criteria for the following:

TITLE

Company

Address

City, State, Zip

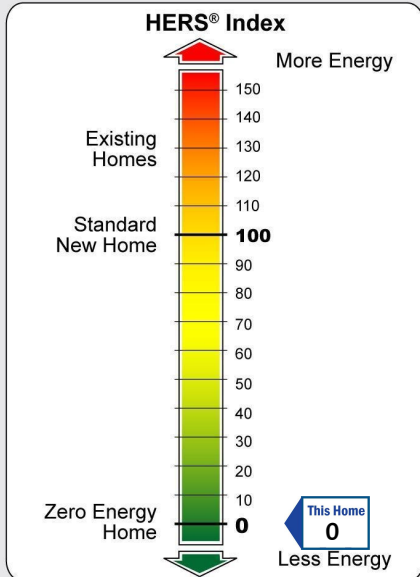
Phone #

Fax #

**REM/Rate - Residential Energy Analysis and Rating Software v15.7**

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The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

## RESNET HERS Index Certificate



43937 SE 80th  
North Bend, WA 98045  
Rater: Elizabeth Coe  
Registry ID: 036802775  
Annual Estimates\*:  
Elec(kWh): 96  
CO2 emissions(Tons): 0  
Energy Savings (\$)\*\*: 2018  
\*Based on standard operating conditions  
\*\*Based on U.S. DOE designation of a HERS  
Index of 130 as the 'Typical Existing Home'

TITLE  
Company  
Address  
City, State, Zip  
Phone #

This home has been inspected  
and performance tested in  
accordance with Chapter 3 of  
the RESNET standards.

**RESNET®**  
www.resnet.us

# Indoor airPLUS Qualified Home

This home built at  
**43937 SE 80th**  
**North Bend, WA 98045**  
was verified by  
**Elizabeth Coe**

to meet Indoor airPLUS construction  
specifications as established  
by the  
U.S. Environmental Protection Agency.



Indoor airPLUS qualified homes are  
designed to contribute to improved  
indoor air quality.

**9/25/18**



## Indoor airPLUS Features

- Moisture and Mold Control
- Radon Resistant Construction
- Pest Barriers
- Effective Heating, Ventilating, and Air-Conditioning Systems
- Safe Combustion
- Healthier Building Materials

Not all features are required in all cases. To learn more about indoor air quality features in your home, ask your builder to review the Indoor airPLUS verification checklist with you, or visit [www.epa.gov/indoorairplus](http://www.epa.gov/indoorairplus).



Built by:

**TC Legend Homes**

Verified by:

**Elizabeth Coe**

Date:

**9/25/18**

New homes that are Indoor airPLUS qualified meet U.S. Environmental Protection Agency guidelines for improved indoor air quality.

[www.epa.gov/indoorairplus](http://www.epa.gov/indoorairplus)



## Building Envelope Air Leakage Testing Data

Date:	09/11/2018
Owner:	TC Legend Homes, LLC
Property Address:	43937 SE 80 <sup>th</sup> St, North Bend, WA
Test Pass or Fail:	Pass
ACH 50:	0.88
Conditioned Square Feet/Volume:	2026/20720
CFM @ 50 Pa:	304
Technician:	Elizabeth Coe
Notes:	

I certify that these blower door results are accurate and determined using standard industry protocol.

Technician Signature: Elizabeth Coe

2015 Washington State Energy Code reference: R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope. Once visual inspection has confirmed sealing (see Table R402.4.1.1), operable windows and doors manufactured by small business shall be permitted to be sealed off at the frame prior to the test.































