

## Energy Audit Report

Homeowner: Me\_summer\_test1

Address: Me\_summer\_test1

Auditors: Rudolfs

Contact: mdicommunityenergy@coa.edu, 802 266 0301

Date: 15 July 2024

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We conducted an energy assessment of your home on 2024-05-25. This report will tell you what we did, what we found, and what we suggest for your home. These suggestions include information on incentives and financing to make improvements more affordable.

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## Table of Contents

Here will be the table of contents

# 1. Summary of your Audit

1.1 Visual Inspection and Measurements We started with a tour and visual inspection of the inside and outside of the home. We identified any visible damage to the building, moisture control strategies, major appliances, and insulation. We measured square footage and volume of the home, as well as the area of all exterior windows and doors. We used a kill-a-watt meter to measure the electricity use of some appliances. During your audit, we used a carbon monoxide meter to measure the ambient carbon monoxide levels throughout the home.

1.2 Attic We entered the attic to check for insulation, air sealing, ventilation, and potential hazards such as mold. Additionally, we visually inspected the attic ventilation and any duct and pipework passing through the attic.

1.3 Basement We visually inspected any appliances in the basement and noted insulation levels, moisture, rodents, and any other concerns.

1.4 Combustion Appliance Safety We assessed combustion appliances that burn fossil fuels such as propane, heating oil, or kerosene. These include furnaces, boilers, water heaters, and gas ovens.

Option 1: We visually inspected and conducted combustion safety tests on the combustion appliance(s) in your home. This included measuring for carbon monoxide and testing that flue gases are properly exhausting from the home. Option 2: We visually inspected your appliance(s) but were unable to perform combustion safety tests.

IF propane gas, Add sentence to Options 1/2: We also performed gas leak detection tests on your propane appliance(s).

## 1.5 Blower Door / Air Leakage Test

We used a large fan in an exterior door to depressurize your house. This allows us to determine the volume of air leakage into the house and to locate bigger air leaks. To find leaks, we used an infrared camera to check for unusually hot and cold spots. We also checked the pressure differences of the rooms to help determine major air leak locations.

## Home's current conditions

Build: Year 2024

Volume: 3000 cubic feet

Area: 3000 square feet

Net wall area: 600 square feet

Ceiling/attic area: 1000 square feet

Ceiling height: 5 feet

Primary heating fuel: Oil

Secondary heating fuel:

Water heating fuel:

Window type: singlepaned

Window area:200 square feet

Door type and area: no\_idea, 300 square feet

## Health and safety

Combustion Gas Spillage Test – FAILED (Emissions Spilled for 60 seconds)

Appliance Carbon Monoxide (CO) Test – PASSED( Detected 24parts per million)

Ambient Carbon Monoxide (CO) Test – PASSED (Detected 20 parts per million)

Combustion Appliance Draft Test – PASSED

Gas leak detection: FAILED, In the kitchen

Other Health & Safety Concerns: There were no further health and/or safety concerns that were identified at the time of your energy audit.

## Air quality

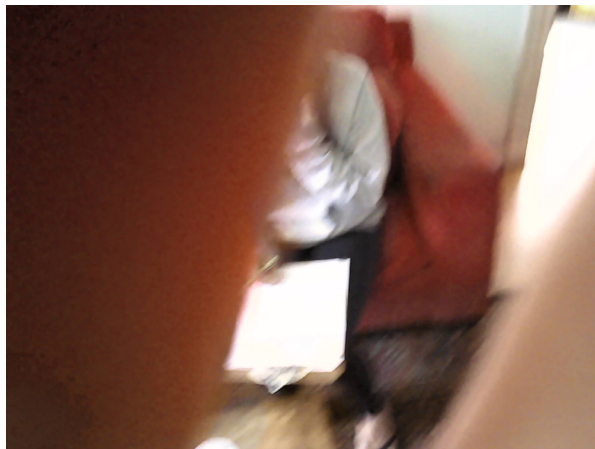
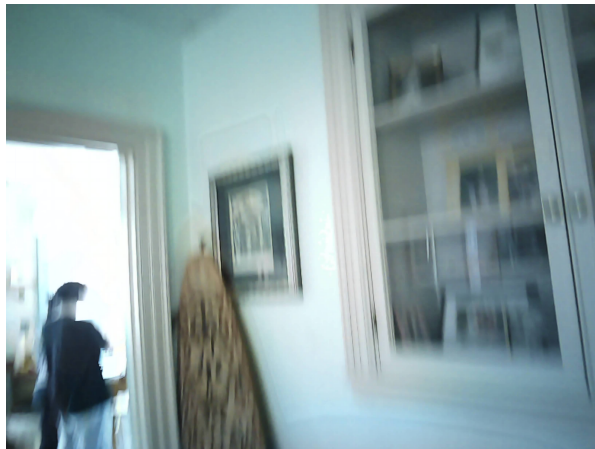
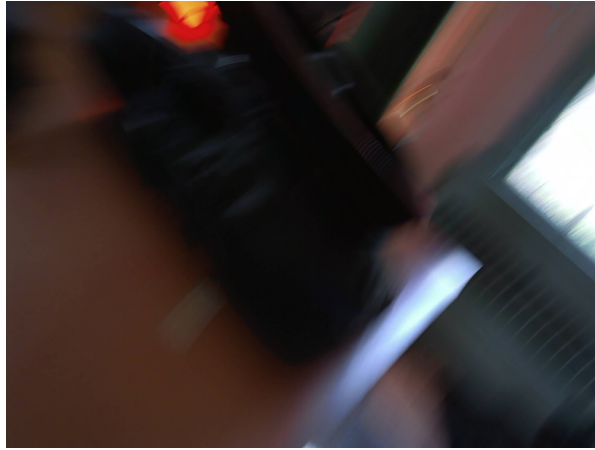
### Insulation levels

HOME COMPONENT	YOUR HOME'S R-VALUES	US D.O.E. RECOMMENDED R-VALUES
Attics/Ceilings	40	60
Above Ground Walls	30	30
Basement Walls	50	19

source [U.S. Department of Energy, Pacific Northwest Labaratory](#)

Here are some picture of your insulation.

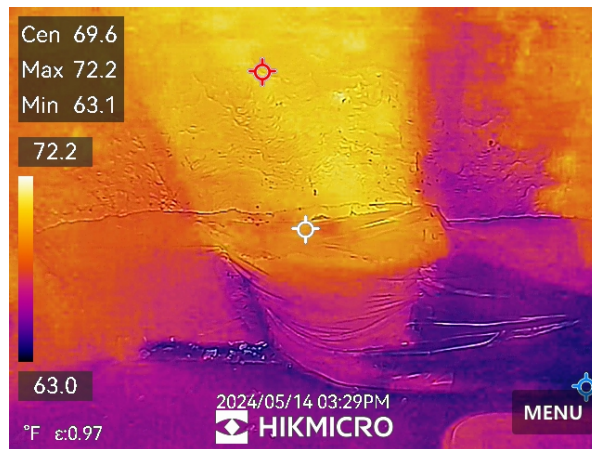




Images of the insulation pictures.

## Blower Door / Air Leakage Test

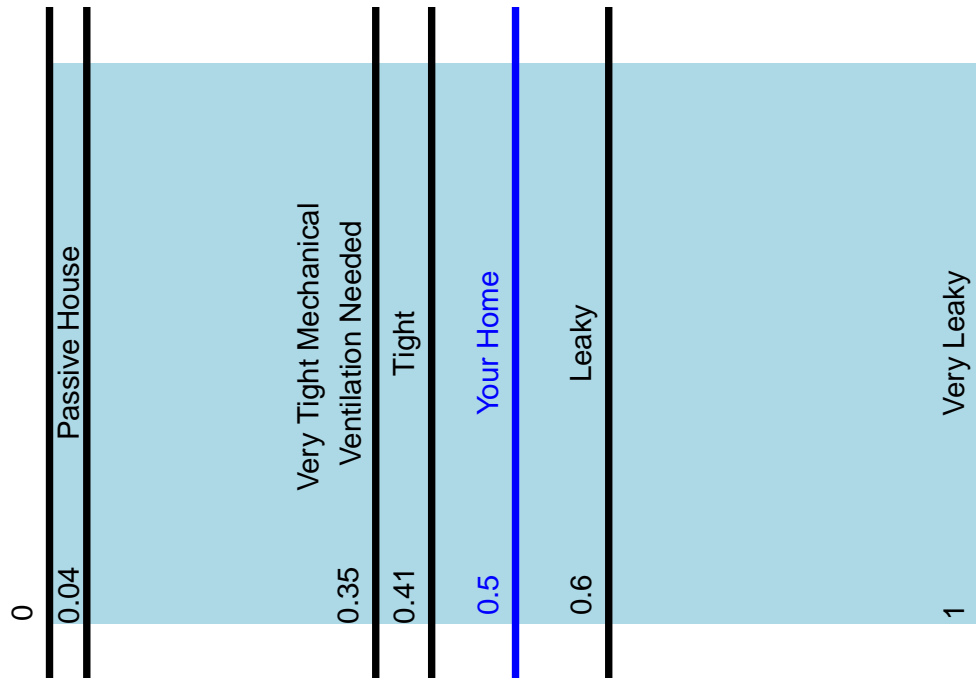
The blower door test, determined that your homes air leakage rate is 0.5 Natural Air Changes per Hour (ACH<sub>n</sub>) (Should I explain what ACH<sub>n</sub> is?) CFM50 was 500 with A ring used. (Include photo)



There was a significant hole in the further rooms closet into the attic

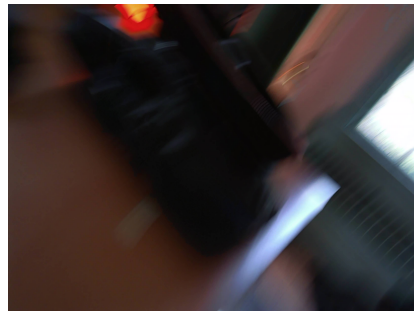
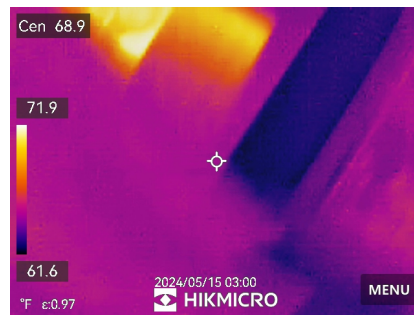
## Your Building on the scale

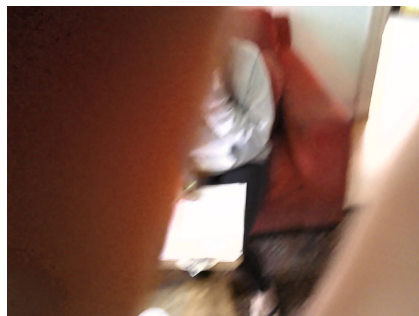
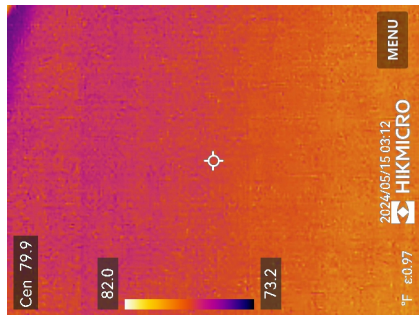
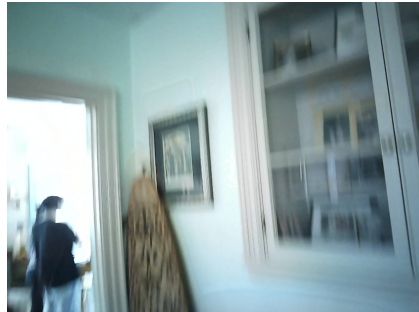
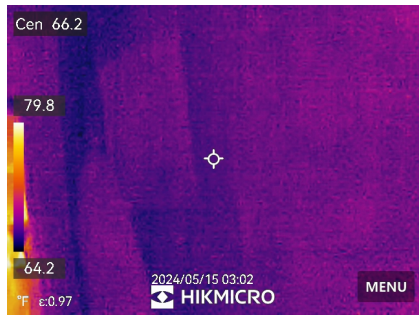
This scale shows how is your building compare to air leakage standards. Where being closer to zero providing with the best energy saving.



The blower door test and visual inspection detected the following areas for moderate to severe air leakage:

(This would be pictures)





## Heating and Cooling Systems

(Image of heating system) Your home is currently heated with an Oil Your current heating system has the following efficiency and output ratings:

- Heating efficiency = 50
- Annual Fuel Utilization Efficiency (AFUE)(need a new column here)
- Heating output = 3000 Btu/hr.

Your home is cooled with (need new column for cooling type) r code here. (I need conditional rendering here) The size, construction, and energy consuming features of your home have all been factored into the calculation of the heating and cooling loads for your home:

- Heating load = 2000 Btu/hr
- Cooling load = 1000Btu/hr

It is important to make sure that a new heating/cooling system is designed to meet the heating and cooling loads of your home. And please keep in mind that any changes to your home (i.e. – air sealing, insulating, etc...) will ultimately decrease your heating load and can lead to saving money on a new heating system by enabling you to purchase a system with a lower energy output.



## Buildings Electricity use

### Energy Bill analysis

