ECO HOME PROGRAM
TURNING HOUSES INTO HOMES

Healthy Homes Standards Assessment

Heating, Insulation, Ventilation, Moisture Ingres, Drainage and Draught Stopping

Photo of Property

Address **778b Gloucester St, Avonside, Christchurch**

Approximately property age: **Earlier then 1970**

Zone: 3

Wednesday, September 2, 2020

Scope
The purpose of this survey is to ensure that the rental property inspected meets the heathy homes standards set out in Subparts two [2] to five [5] of the Residential Tenancies (Healthy Homes Standard) Regulations 2019.
This standard came into effect on 1 July 2019. This report details the minimum standards for heating, insulation, ventilation, moisture ingress and drainage and draught stopping and whether these have been met or not.
Specific details and images are captured during the assessment process.
This report has been completed under the premise that Regulation 30 & 31 from the Residential Tenancies (Healthy Homes Standards) 2019 does not apply. I.e. The current tenant Is not the former owner AND the premise is not due to be demolished or substantially rebuilt.

Heating

Total heating capacity required: **6.8KW**

Existing Heating

Does the living room have existing heating? **Yes**

Heat Pump or Fire Document:

Heat Pump unit or Fireplace:

Heater type: **Mitsubishi 5.8KW heating and top up 2kW Serene heater**

Installed as a fixed heating source: **Yes**

Does it meet the required heating capacity: **Yes**

Is the property compliant for heating **Yes**

The Heating Standard requires landlords to provide one or more fixed heater(s) that can directly heat the main
living room of every rental property to at least 18°C. It must be an acceptable type of heater and also needs to meet
a required minimum heating capacity. The heater CAN NOT be an open fire, unflued gas heater or other unflued
combustion heater.
The main living area within a property is any habitable space that can be used for general everyday living. This also
includes any other space that is always open to the living area such as hallways, open -plan kitchens or stairwells. A
space will only be considered to always to be open if there is no solid barrier such as a door or window between the
spaces. By reducing the overall floor area the heating requirements will also be lowerd. This could be achieved by
adding in doors to open hallways or stairwells etc.
A specialised assessment tool was used to determine the heating capacity required and subsequently the type of
heating device required for compliance.

Insulation Standard

Ceiling Insulation

Does the Ceiling insulation meet the minimum requirement of 120mm thick or R3.3:	**yes**
Ceiling insulation photo 3	
When was the insulation installed: (if known)	Unknown
Areas insulated	**All accessible areas**
Type of insulation:	**Pink Batts segments**
Thickness / R Value of insulation:	**140mm**

Underfloor Insulation

Does the Underfloor insulation meet the minimum requirement of R1.3: yes

Underfloor insulation photo 1

Underfloor insulation photo 2

Underfloor insulation photo 3

When was the insulation installed: (if known) Unknown

Areas insulated All accessible areas

Type of insulation: Green stuff polyester blanket

Thickness/ R Value of insulation: R1.5

Wall Insulation (if known)

Wall insulation details:

Unknown

Is the property compliant for Insulation	**Yes**

Ceiling and underfloor insulation has been compulsory in all rental homes since 1st July 2019. The Healthy Homes
Insulation Standard builds on the current insulation requirements. Under the Healthy Homes Insulation Standard,
existing insulation may need to be topped up or replaced if it is not in a reasonable condition. Existing ceiling
insulation needs to be at least 120mm thick. If ceiling insulation needs to be topped up, it needs to meet minimum
R-values for ceiling insulation as set out in the 2008 Building Code. Underfloor insulation needs a minimum R-
value of 1.3.

Ventilation Standard

Openable Windows & Doors

Dose each habitable space have at least one openable window, door or skylight comprised of at least 5% of the floor area of the habitable space and must be able to remain fixed in an open position:

Yes

Each habitable space within a property must have openable windows, doors or skylights that can remain open to
the outside in a fixed position. The size of each openable area must be at least 5% of the floor area of that room.

Kitchen

Does the kitchen have an extraction fan installed:	**Yes**
Photo of extraction Fan	
Extraction fan details:	**At Least 50 L/S**
Is it ducted outside:	**Yes**
Is the extraction fan in reasonable working order:	**Yes**
Is the extraction fan compliant:	**Yes**

Requirements for kitchen extractor fans

Installed FROM 1 July 2019: The fan and all exhaust ducting must have a diameter of at least 150mm OR the fan and all exhaust ducting must have an exhaust capacity of at least 50 litres per second. The fan must vent extracted air to outdoors.

Installed BEFORE 1 July 2019: No minimum size or performance requirements but fans must be in good working order and ventilate to outdoors. This means that the range hood or extractor fan must not vent back into the kitchen, into a roof space or other space. Any ducting must be connected, intact (i.e. without tears or holes) and installed so that extracted air can flow freely through it (e.g. no unnecessary kinks or compressions). Any grills or filters must be unclogged.

Bathroom Extractor Fan

Does the bathroom have an extractor fan installed: Yes

Photo of extractor Fan

Extractor fan details: 120mm in Diameter | At least 25 L/s

Is the extractor fan compliant: Yes

Is the Property compliant for Ventilation: Yes

Draught stopping standard

Are all rooms free of unintentional and unreasonable gaps between, and holes in, building elements that allow draughts into or out of the premises:	**Yes**
Is there an open fireplace:	**No**
Is the Property compliant for Draught Stopping:	**Yes**

Any unreasonable gaps or holes in walls, ceilings, windows, floors and doors that are not necessary and cause noticeable draughts must be blocked. This includes open fireplaces, unless the tenant has requested in writing that the open fireplace not be blocked and the landlord accepts this request.

As a rule of thumb, gaps or holes with a width greater than 3mm in or around the walls, ceilings, windows, doors and floors that let air into or out of the home will usually require blocking to prevent unreasonable draughts.
This means that if the edge of a New Zealand $2 dollar coin can fit in the gap, then the gap needs to be sealed.

Moisture Ingress and Drainage Standard:

Does the rental property have a drainage system that efficiently drains storm water, surface water, and ground water to an appropriate outfall:

Yes

Does the property have appropriate gutters, down pipes, and drains for the removal of the water from the roof:

Yes

Photo of gutter 1:

Photo of gutter 2:

Photo of gutter 3:

Is the Drainage compliant:

Yes

An appropriate outfall may include the storm water system provided by your local council. Alternatively it may also be a properly working soakage system, natural watercourse, adequate water storage system or other constructed water way.

Moisture Ingree Standard

Does the property have a ground moisture barrier: Yes

Photo of Moister Barrier:

If Polythene is it: 250 Microns | Has a 150mm over lap or tapped | No gaps or holes

Is the property compliant for moisture barrier: Yes

Is the Property compliant for Moisture and Drainage: Yes

The subfloor is the space under the house between the floor & the ground. It is considered enclosed if the airflow in and out is significantly obstru
by more than 50% - by things like foundations, cement board cladding or earth.

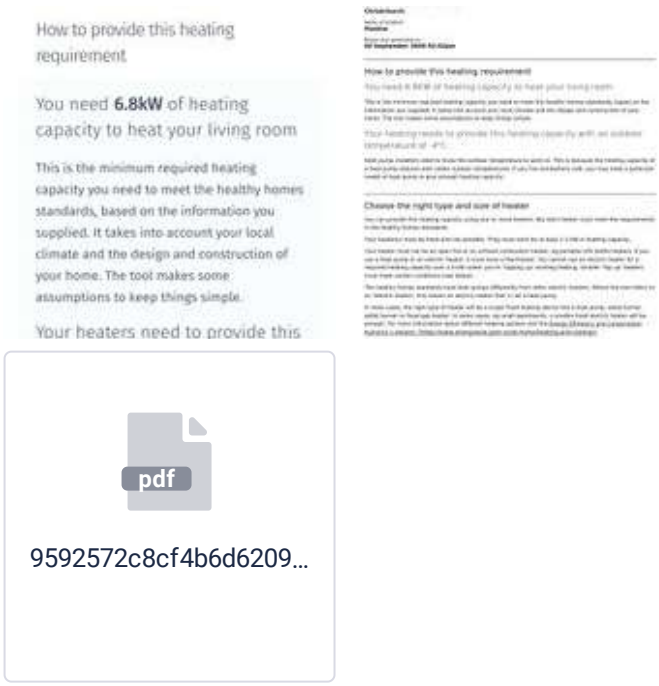
Smoke alarms:

From 1 July 2016, if you are installing new smoke alarms or if you are replacing an existing smoke alarm, you must install photoelectric smoke alarms with long life batteries that have a life span of at least 8 years.
Landlords MUST check that all smoke alarms are working at the start of each new tenancy and ensure they remain in working order throughout the tenancy.

Summary of Assessment

	Compliant	Non-Compliant
Heating	✓	
Insulation	✓	
Ventilation	✓	
Moisture Ingree	✓	
Drainage	✓	
Draught Stopping	✓	

Upload file of heating calculation:



Disclaimer

The statements contained in this report are prepared solely for the purposes of assessing the property's' suitability for rental in accordance with the Residential Tenancies (Healthy Homes Standards) Regulations 2019. The report is based on a limited visual, non-invasive inspection of the components, the assessment is a guide only in some cases further investigation may be required. We recommend that where possible owners or landlords search their personal records of the property and compliance documents, property plans or code of compliance for information that would further assist compliance with the legislation. Eco Home Program endeavours to the best of its ability and knowledge to ensure the information generated by this assessment is accurate and will assist in user's compliance with the Residential Tenancies (Healthy Homes Standards) Regulations 2019. We do offer no guarantee that this document will satisfy all of the requirements under the legislation. Eco Home Program will not accept any liability for the accuracy of any report or information generated, where information provided by the landlord or property manager is incorrect or incomplete or where we have no access to the property, or access is limited, or parts are inaccessible. It is the landlord's sole responsibility to ensure compliance with Residential Tenancies (Healthy Homes Standards) Regulations 2019. Eco Home Program will not accept liability for any penalty imposed for non-compliance with the statutory requirements whatsoever. Eco Home Program will accept a limited liability for errors in our report that may influence the owner or landlord's ability to comply with the legislation, such liability will be limited to a maximum of twenty percent of the cost of the report. The report is an assessment of the current state of the items measured in the standards to assess compliance only and a guide to assist the landlord in being able to meet compliance. The report is not a guarantee or warranty as to the state of the building or any product, system or feature in the building. It is not a building report and not to be interpreted or utilized in any other manner whatsoever as to soundness or defects of structure. It remains the owner's sole responsibility to establish and maintain the structural soundness of the property in conformity of all building regulations and by-laws. No liability will be accepted for any omissions in the preparation of this report, or incorrect use of this report. Eco Home Program recommends reassessment when making any changes at the property, we additionally suggest assessment every 12 to 36 months depending on the condition of the building. Where we have no information on your installation date for your insulation we assume that it was installed prior to 1 July 2016 and compliance is based on the measurement in mm. While Eco Home Program tests appliances where possible and makes the best assessment that we can at the time, we do not take responsibility for ensuring that items are and remain in working condition, the landlord will remain solely responsible for this. Our report where a machine, appliance or equipment is involved, is based on the specifications of the machine, appliance or equipment to ascertain its ability to conform, we do not test to ensure that the machine, appliance or equipment is performing to its specifications, such tests are carried out by qualified technicians with specialized equipment. We do where possible turn on a machine, appliance or equipment to check that it is operational, this is however not a guarantee that the machine, appliance or equipment is performing as it should. It is the property owner's sole responsibility to ensure that all machine, appliance or equipment is maintained in proper working order. Where a code of compliance is required to ensure an aspect of the property is legal this will be the responsibility of the landlord to ensure.

Tenancy Services

Heating Report

Report Details

This report was generated by
Blair
Ashcroft

Address of rental property
778b Gloucester St, Avonside,
Christchurch

Name of landlord
Pauline

Report was generated on
02 September 2020 02:52pm

How to provide this heating requirement

You need 6.8kW of heating capacity to heat your living room

This is the minimum required heating capacity you need to meet the healthy homes standards, based on the information you supplied. It takes into account your local climate and the design and construction of your home. The tool makes some assumptions to keep things simple.

Your heating needs to provide this heating capacity with an outdoor temperature of -4°C

Heat pump installers need to know the outdoor temperature to work to. This is because the heating capacity of a heat pump reduces with colder outdoor temperatures. If you live somewhere cold, you may need a particular model of heat pump to give enough heating capacity.

Choose the right type and size of heater

You can provide this heating capacity using one or more heaters. But each heater must meet the requirements in the healthy homes standards.

Your heater(s) must be fixed and not portable. They must each be at least 1.5 kW in heating capacity.

Your heater must not be an open fire or an unflued combustion heater, eg portable LPG bottle heaters. If you use a heat pump or an electric heater, it must have a thermostat. You cannot use an electric heater for a required heating capacity over 2.4 kW unless you're 'topping up' existing heating. Smaller 'top up' heaters must meet certain conditions (see below).

The healthy homes standards treat heat pumps differently from other electric heaters. Where the tool refers to an 'electric heater', this means an electric heater that is not a heat pump.

In most cases, the right type of heater will be a larger fixed heating device like a heat pump, wood burner, pellet burner or flued gas heater. In some cases, eg small apartments, a smaller fixed electric heater will be enough. For more information about different heating options visit the Energy Efficiency and Conservation Authority's website. (https://www.energywise.govt.nz/at-home/heating-and-cooling/)

You can still use heaters that don't meet these requirements. They won't need to be removed but they can't contribute to the heating capacity you need to meet the healthy homes standards.

Top up existing heating

If you're adding a new heater to a room with existing heating, each heater must meet the requirements in the healthy homes standards, with one exception. If your existing heating doesn't have the required heating capacity, you can add a smaller fixed electric heater to 'top up' your heating. If you do, you must meet all these conditions:

- you installed your existing heating before 1 July 2019
- each of your existing heaters meets the general requirements for heaters (listed above) and is not an electric heater (except for a heat pump)
- the required heating capacity is more than 2.4 kW, and
- the 'top up' you need is 1.5 kW or less.

For example, if you have a heat pump with a heating capacity of 3.3 kW, but you need a total heating capacity of 4.5 kW, you can add a fixed 1.5 kW electric heater with a thermostat to meet the standard. See further examples below.

You don't need to add more heating if you have one or more existing large heaters that meet all these conditions:

- were installed before 1 July 2019
- each have a heating capacity greater than 2.4 kW
- meet the requirements in the standards, and
- have a total heating capacity that's at least 90% of what you need.

Disclaimer

This tool is a 'heating capacity calculator' for the purposes of the Residential Tenancies (Healthy Homes Standards) Regulations 2019. As well as determining the required heating capacity, the Heating Assessment Tool will also provide information about the type of heating device that, if installed, would achieve compliance with the heating standard.

When the Heating Assessment Tool is used correctly it is intended to presume the required heating capacity for the main living room of a specific rental premises. Any person using it in good faith is entitled to rely on the report produced as being the correct result based on the information entered. Misuse of the Heating Assessment Tool may cause an incorrect result and impact on a landlord's compliance with the heating standard. Read the full disclaimer. (https://www.tenancy.govt.nz/about-tenancy-services/disclaimer/#id_30551108-heating-assessment-tool-disclaimer)

Examples

Here are some examples showing a required heating capacity and how you could provide heating that meets the healthy homes standards.

Example 1:

You need a total heating capacity of 5 kW. You have a heat pump, installed in 2018, with a heating capacity of 3.7 kW. You can add a fixed electric heater that is at least 1.5 kW to 'top up' your heating.

Example 2:

You need a total heating capacity of 8 kW. You have a fixed heat pump with a heating capacity of 4 kW and an unflued gas heater with a heating capacity of 3 kW. The unflued gas heater is an unacceptable heater type, which means it can't contribute to the required heating capacity. You can meet the standards by installing a 4 kW (or larger) qualifying fixed heater where it can heat the main living room directly. You cannot add an electric heater to 'top up' your heating because the 'top up' you need is over 1.5 kW.

Example 3:

You need a total heating capacity of 3.5 kW. You have a fixed heat pump with a thermostat and heating capacity of 3.3 kW, installed in 2014. You don’t need to add any more heating because your existing heating is a qualifying, larger heater that achieves at least 90% of the required heating capacity.

Rental property details

About your home

Your home's age and location

When was your home built: **Before 1978**
Region: **Canterbury**
Council rates paid to: **Christchurch City Council**
Zone: **3**
Assumed external temperature: **-4°C**

About your living room

Main living room

Main living room area: **40m²**
Number of staircases: **0**
Additional level 1 area: **0m²**
Additional level 2 area: **0m²**

Level 1

Wall 1

Type of wall: **external**
Length: **10.00m**
Height: **2.40m**
Area: **24.00m²**
Calculated area: **24.00m²**
R-Value: **0.5**
Default R-Value **0.5**
Wall Transmission Heat Loss: **1.79kW**
Number of windows: **3**
Number of door glazing: **1**

Wall 1: Window 1

Glazing type: **single**
Length: **0.90m**
Height: **1.40m**
Area: **1.26m²**
Calculated area: **1.26m²**
R-Value: **0.15**
Default R-Value **0.15**

Wall 1: Window 2

Glazing type: **single**
Length: **0.90m**
Height: **1.40m**
Area: **1.26m²**
Calculated area: **1.26m²**
R-Value: **0.15**
Default R-Value **0.15**

Wall 1: Window 3

Glazing type: **single**
Length: **0.90m**
Height: **1.40m**
Area: **1.26m²**
Calculated area: **1.26m²**
R-Value: **0.15**
Default R-Value **0.15**

Wall 1: Door 1 glazing

Glazing type: **single**
Length: **1.70m**
Height: **2.00m**
Area: **3m²**
Calculated area: **3m²**
R-Value **0.15**
Default R-Value **0.15**

Wall 2

Type of wall: **external**
Length: **4.00m**
Height: **2.40m**
Area: **9.60m²**
Calculated area: **9.60m²**
R-Value: **0.5**
Default R-Value **0.5**
Wall Transmission Heat Loss: **0.46kW**
Number of windows: **1**
Number of door glazing: **0**

Wall 2: Window 1

Glazing type: **single**
Length: **0.30m**
Height: **1.20m**
Area: **0.36m²**
Calculated area: **0.36m²**
R-Value: **0.15**
Default R-Value **0.15**

Wall 3

Type of wall: **internal**
Length: **10.00m**
Height: **2.40m**
Area: **24.00m²**
Calculated area: **24.00m²**
R-Value: **0.4**
Default R-Value **0.4**
Wall Transmission Heat Loss: **0.66kW**
Number of windows: **0**
Number of door glazing: **0**

Wall 4

Type of wall: **internal**
Length: **10.00m**
Height: **2.40m**
Area: **24.00m²**
Calculated area: **24.00m²**
R-Value: **0.4**
Default R-Value **0.4**
Wall Transmission Heat Loss: **0.66kW**
Number of windows: **0**
Number of door glazing: **0**

Floor:

Floor Area: **40.00m²**
Space below floor: **external**
Standards compliance: **all**
Standards percentage: **100%**
Standards area: **40.00m²**
Standards R-Value **1.5**
Standards R-Value default **1.3**
Non-standards percentage: **0%**
Non-standards area: **0.00m²**
Non-standards R-Value **0**
Non-standards R-Value default **0.5**

Internal percentage: **0%**
Internal R-Value **0**
Internal R-Value default **0.5**
External percentage: **100%**
External R-Value **1.5**
External R-Value default **1.3**
Total area: **40.00m²**
Internal area: **0.00m²**
External area: **40.00m²**
Internal Transmission Heat Loss: **0.00kW**
External Transmission Heat Loss: **0.59kW**
Standards Transmission Heat Loss: **0.59kW**
Non-standards Transmission Heat Loss: **0.00kW**
Total Transmission Heat Loss: **0.59kW**

Ceiling:

Floor Area: **40.00m²**
Shape of ceiling: **flat**
Space above ceiling: **external**
Standards percentage: **100%**
Standards area: **40.00m²**
Standards R-Value **3.6**
Standards R-Value default **2.4**
Non-standards percentage: **0%**
Non-standards area: **0.00m²**
Non-standards R-Value: **0**
Non-standards R-Value default: **0.35**
Internal percentage: **0%**
Internal R-Value: **0**
Internal R-Value default: **0.5**
External percentage: **100%**
External R-Value: **3.6**
External R-Value default: **2.4**

Flat area: **40.00m²**
Irregular area: **0.00m²**
Total area: **40.00m²**
Internal area: **0.00m²**
External area: **40.00m²**
Internal Transmission Heat Loss: **0.00kW**
External Transmission Heat Loss: **0.24kW**
Standards Transmission Heat Loss: **0.24kW**
Non-standards Transmission Heat Loss: **0.00kW**
Total Transmission Heat Loss: **0.24kW**
Number of skylights: **0**

Level Summary:

Volume of Level: **96m³**
Transmission Heat Loss: **4.40kW**
Ventilation Heat Loss: **0.72kW**
Additional heating-up power: **1.60kW**

Result

Transmission Heat Loss: **4.40kW**
Ventilation Heat Loss: **0.72kW**
Additional heating-up power: **1.60kW**
Heat load of the heated space: **6.8kW**
Heat load of the heated space (w/o heating-up power): **5.12kW**