



# COMPREHENSIVE PROPERTY REPORTS

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<https://www.cprnz.com/>



## RESIDENTIAL PROPERTY REPORT COPY

1234 Main St. Paraparaumu Wellington 5032

Buyer Name

09/08/2021 9:00AM



Inspector  
Travis Mackay

*Travis Mackay*

Trade Qualified Building Inspector.  
Structural Engineer. Master Carpenter.  
Level 3 Certified Thermographer. Property  
Investor. Renovation Specialist. Mediation  
Resolution Expert. 25+ Years Industry  
Experience.

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Standard of Practice

137



**BUILDING  
REPORTS YOU  
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IN!**

**COMPREHENSIVE PROPERTY REPORTS LIMITED**

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# 1: PROPERTY DETAILS & SUMMARY

## Information

### PROPERTY & CLIENT INFORMATION

PROPERTY & CLIENT INFORMATION	
ADDRESS:	PRE TO MARKET REPORT
CLIENT:	PRE SALE REPORT
DATE:	06/08/2020
PROPERTY DETAILS	
YEAR OF CONSTRUCTION:	1908
LEVELS:	Single Level
CLADDING SYSTEMS:	Timber Weatherboard
ROOF COVERINGS:	Corrugated Iron
FOUNDATION SYSTEM:	Concrete Re-piling. Some Original Timber Piles remain.
WEATHER CONDITIONS:	Recent Rain, Humid.

### FOR OBSERVATIONS/DEFECTS ONLY VIEW

THIS BAR IS LOCATED AT THE TOP OF YOUR REPORT  
UNDER THE MAIN PHOTO

DIGITAL Summary (LEFT BUTTON) PDF Summary (RIGHT BUTTON)

Full Report

Summary

Immediate Attention

PDF

**GLOSSARY****HOW TO READ OUR OBSERVATION RATINGS****GOOD CONDITION****Qualifying reasons for a GREEN Rating:**

The room/area/item was in a good condition overall. It is as expected for the age and style of the property. No moisture detected at the time of inspection.

**GENERALLY GOOD CONDITION****Qualifying reasons for a BLUE Rating:**

The room/area/item was in a generally good overall condition. The observation shows wear and tear that we consider to be what is expected from a property of this age and construction era, However there may be some minor maintenance issues that require attention. The observation may require a person of a competent skill level and general handyman knowledge to improve it to a good condition. The observation may have a low to moderate estimated repair and/or replacement cost. Low level moisture readings within the NZ Standards were detected at the time of inspection. This is not uncommon in dwellings of this age and construction era. If multiple low moisture levels are found in a close proximity to each other, it can be an early warning that the area has a developing issue.

**AVERAGE CONDITION****Qualifying reasons for an ORANGE Rating:**

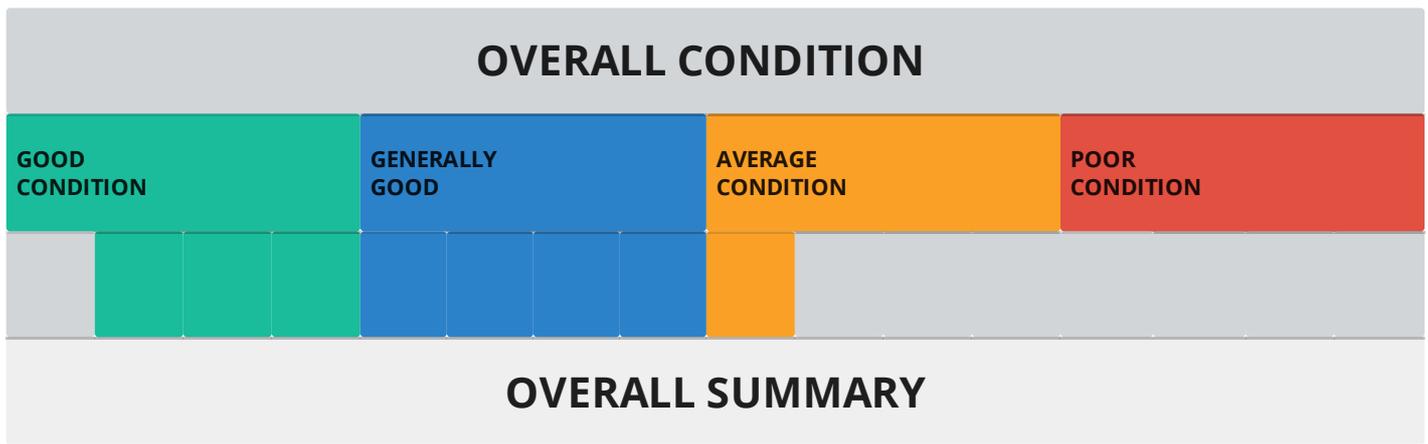
The overall room/area/item is deemed below the standard that is expected for the age and style of this property. The observation is in a semi-functional condition and requires skilled handyman or trade level work to improve it to a good functional level. On-going maintenance may be required. There may be a moderate repair and/or replacement cost. **MOISTURE DETECTED (HIGH LEVELS) 17.0 - 30.0** Moderate to High level moisture readings were found in one or more areas at the time of inspection. Readings at this level are often an early warning sign that warrants further investigation to find the cause and prevent more damaging effects. The external cladding, joinery, flashing and/or general weather seal in this area may need attention.

**POOR CONDITION****Qualifying reasons for a RED Rating:**

The overall room/area/item is deemed well below the standard that is expected for the age and style of this property. The observation may require consulting a specialist in a particular area of construction to assess, quote, repair and/or replace. The trade level requirements plus, the high estimated cost to repair defines it as a red indicator item. The observation may also be a direct safety issue and/or the observation may have the potential to become a safety issue in the future. **MOISTURE DETECTED (VERY HIGH LEVELS) 30.0 - 100.0** Very high level moisture readings were found in one or more areas at the time of inspection. Readings at this level are a definitive sign that strongly warrants further investigation to find the cause and possibly prevent any more damaging effect. We may recommend having an invasive inspection done sooner rather than later. By either CPRNZ or another independent inspector. There could be a sizable cost involved to complete the work needed to correct this issue.

**We understand that not every home  
buyer or seller speaks "house"**

We want to give our customers a better understanding of the inner workings beneath the surface of each property. You will find detailed drawings in each section that show, where and what the items and areas are that we've inspected and/or written about.

**OVERALL SUMMARY**

The building overall is in a good condition relative to its age, location and era of construction. This particular property has been very well maintained. The property is however due some minor and/or moderate maintenance work in specific areas. One or two areas may require a trade contractor.

NOTE: Before you get into the observations let me be clear on three points. (1) This is a 113 year old house. (2) The report may read like there are a lot of observations, however they are actually very few for this style of building. (3) These properties are best kept by vigilantly planning out a set maintenance schedule and budget that best ensures the overall weather seal of the cladding and roofing systems above all other maintenance.

**FOUNDATIONS:**

The foundational work at this property is quite impressive. Sound base structural work with the exception of one or two areas that only require the replacement of some old bearer lengths. Any good builder should be able to accomplish the replacement of these for under \$2,000.00 We can recommend a choice of good builders if required.

**ROOFING STRUCTURE:**

The ceiling cavity and roofing structure is in an impressively good condition overall. Some minor timber deterioration, a lot less than we would have expected to see.

**ROOF COVERINGS:**

The roof coverings are in generally good condition for their age. The coverings should get a painted weather sealing within the next 12-36 months. We can put any potential buyers in touch with a very good local roofing company if they require one. The fascia boards and top finishing boards are in different stages of deterioration. These need addressing first before the weather seal painting requirements of the roof coverings.

**CLADDING:**

The number observations we have documented may seem many, I assure you it is not. The overall paint work on this property is very impressive (Main house). We know this era of construction and style of building very well. I own two immaculate bay villas and would happily swap them both for this one. This property showed very small amount of observations overall. However this style of house does demand a fair amount of ongoing maintenance but a justified amount for it's age and the reward is simply owning an absolutely beautiful home that couldn't be built for what it'll sell for at even today's crazy market prices.

The cladding is the first and most important component you need to take care of as a villa owner. Reason being if it gets to the stage of deterioration when you have to source and pay for lengths of this weatherboard... It's not cheap if your paying retail. However we have good contacts that can source it for you at a very good discount. But if you can remember to "**Paint before you need to paint**" this timber weatherboard will easily outlast every other cladding system.

**CLADDING WEATHER SEALING ESTIMATE:** \$4,000.00 (Replacement of any rotten timber and resealing requirements over 24-36 months on the main house)

**CLADDING WEATHER SEALING ESTIMATE:** \$6,000.00 - \$10,000.00 (Replacement of any rotten timber and resealing requirements over 24-36 months on the main house)

**We recommend** getting exact quotes from your own specialist contractors. We have provided rough estimates for the work required. These costings range from the DIY lower pricing up to the cost to have a professional tradesperson complete the work required over the next 24-36 months.

2: 1/3

## Information

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### SECTION 1/3 DOCUMENTATION

## SECTION 1/3 DOCUMENTATION

**NOTE:** There are 3 main sections to this report:

- **1/3:** Overall Summary & Documentation, plus information about the type of building systems at the property.
- **2/3:** Observations that were identified during the inspection.
- **3/3:** General information, Recommended contractors & Maintenance tips

THE BLANK PAGES BETWEEN SECTIONS ARE FOR YOU TOO WRITE ANY QUESTIONS YOU MAY HAVE ON THE DIFFERENT COMPONENTS WITHIN THIS REPORT

## 3: CLADDING

		IN	NI	NP	O
3.1	CLADDING SYSTEM/S	X			

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

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## CLADDING SYSTEM/S: TIMBER WEATHERBOARD

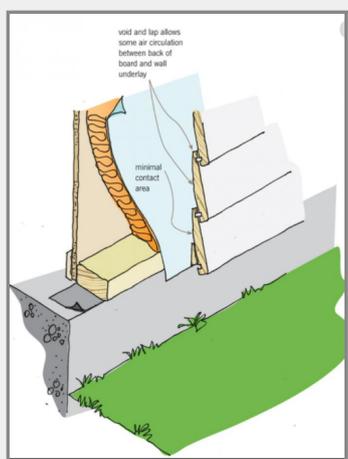
### WEATHERBOARD CLADDING SYSTEMS

This is the traditional cladding material for New Zealand homes. Weatherboards are usually shaped planks fixed horizontally and lapped over each other. Rainwater drains down the outside and can only get inside if it is forced upwards between the boards. It then runs down the backs of the weatherboards, exiting the wall at the bottom. Weatherboards can be vertical as well. Wood cladding requires regular re-staining or re-painting. With careful maintenance, however, you can expect it to last 40 years or more. Under the Building Code new-built homes must include a maintenance programme for any timber cladding in order to be signed off. Smart property investors keep an even stricter maintenance schedule for their older weatherboard homes. We recommend you do the same to best protect your investment.

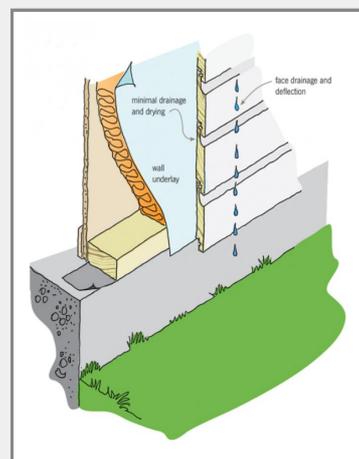
### PROs Vs CONs

**Advantage:** flexible, rarely leaking, easy to maintain, lightweight, environmentally friendly materials.

**Disadvantage:** it needs to be cleaned and painted every five years, and it will be mildewed, deformed and changed in a humid environment all year round. Fragile, poor fire performance



**Bevel-back weatherboard cladding direct-fixed.**



**Rusticated weatherboard cladding direct-fixed.**

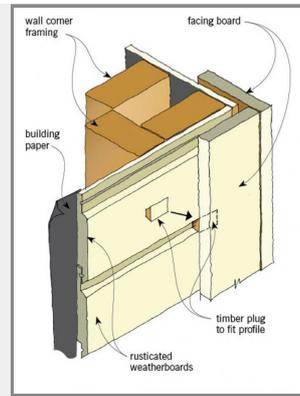
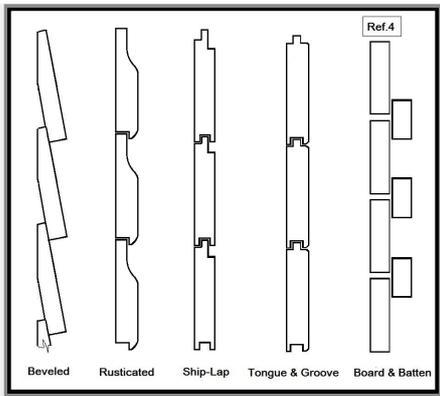
Different types of timbers have been used over the last century, 1880's it was kauri and totara timber, 30 years later the 1910's rimu, miro, matai, and totara were used, The 1940's saw a decline of Matai and miro trees, 1970's pinus radiata and western red cedar would become the new timber of choice, Rimu was still around until the late 1980's, most commonly used today Pine and western red Cedar.

### SCRIBERS, BOXED & UN-BOXED CORNERS

**Scribers** are used at joinery sections, cladding corners, cladding transitions etc. They play a huge role in keeping the property weathertight. Scribers should be checked by the owners of a dwelling as part of their maintenance schedule. If separation gaps are found, apply a paintable silicone sealant to the area, wait for it to cure and apply a weather sealant paint over the top.

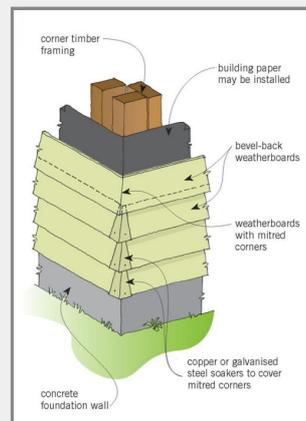
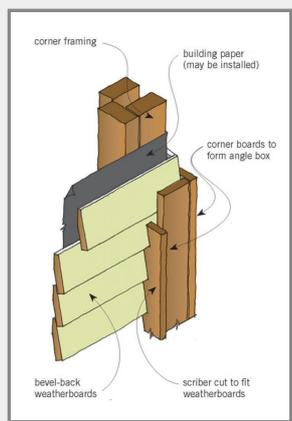
**Corners with weatherboard cladding.** External corners are typically finished with boxed corners and scribers or joints are mitred and covered with soakers to protect the corner from weather and general damage. Scribers should be fitted at the edges of each facing board to cover and seal the gaps left by the slant of each board. Internal corners should have angled flashing installed behind the weatherboards. **Ground clearance.** It is important to keep yard build up cleared from cladding system edges.

### EXAMPLES ONLY



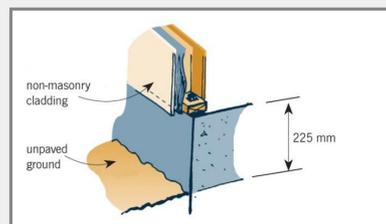
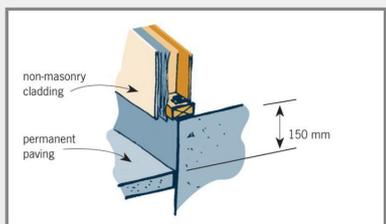
### WEATHERBOARD TYPES

### TIMBER PLUG



### BOXED CORNER

### UN-BOXED CORNER





## 4: JOINERY

		IN	NI	NP	O
4.1	JOINERY	X			X

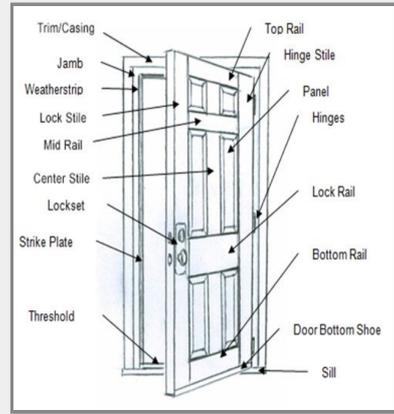
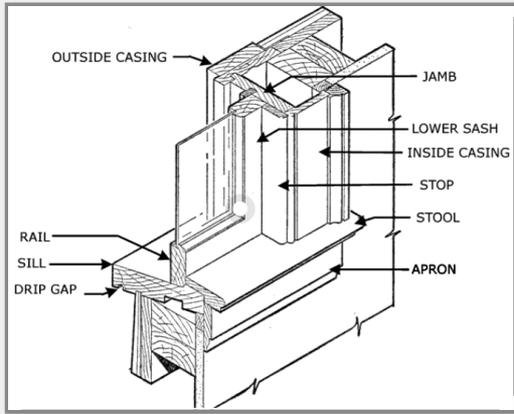
IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

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JOINERY : WEATHERBOARD | JOINERY & FLASHINGS

TIMBER JOINERY DETAIL & DESCRIPTIONS

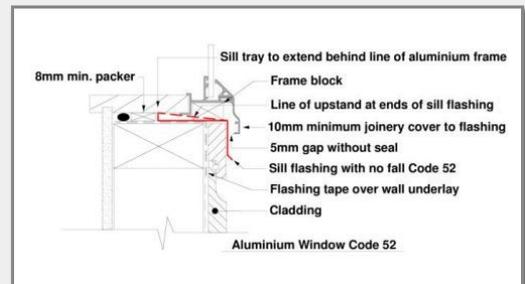
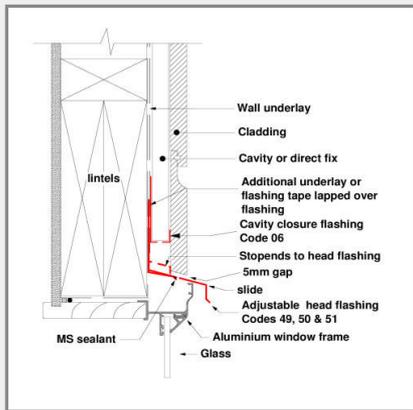


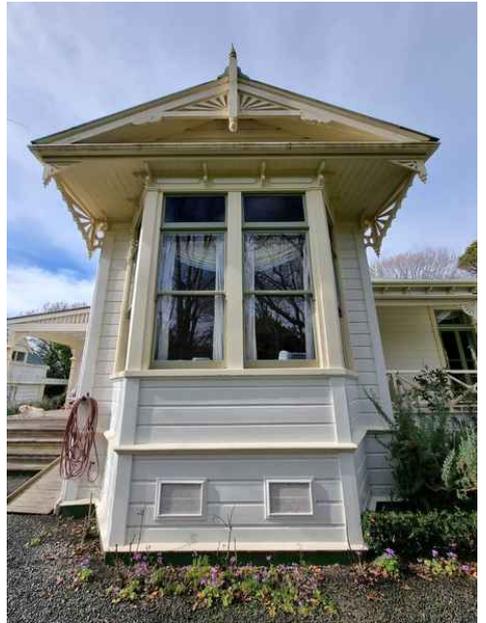
**Doors and windows need regular cleaning and maintenance** to keep them weatherproof and in good working order. If they're not maintained, problems can occur such as sticking, rot or corrosion. Some maintenance tasks are common to all windows and doors. Others depend on the material the window is made from.

**Cleaning and general maintenance.** Frequent washing will extend the life of your windows and doors. Follow the manufacturer's instructions for cleaning if you have them. Regular cleaning also gives you chance to inspect the windows. Signs that you need to increase the frequency of cleaning are chalking surface, condensation, mould growth, corroded fixings and blocked drain outlets.

**Flashings** are a thin continuous piece of material that is installed to prevent water from getting into a structure from an angle or joint. It is key to preventing water intrusion. Flashings are arranged in a manner that directs water down and away from the structure.

HEAD & SILL FLASHING DETAIL







## 5: DECKING

		IN	NI	NP	O
5.1	DECKING ELEMENTS	X			

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

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## DECKING ELEMENTS: VERANDA | PORCH CONSTRUCTION

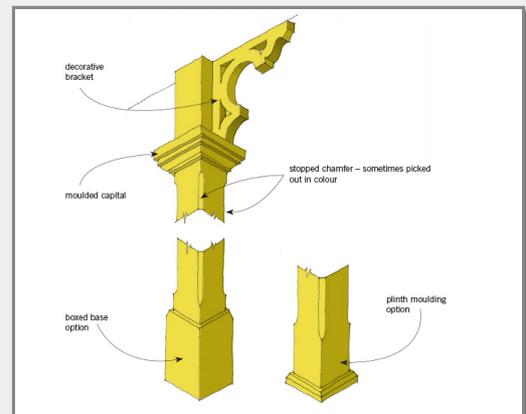
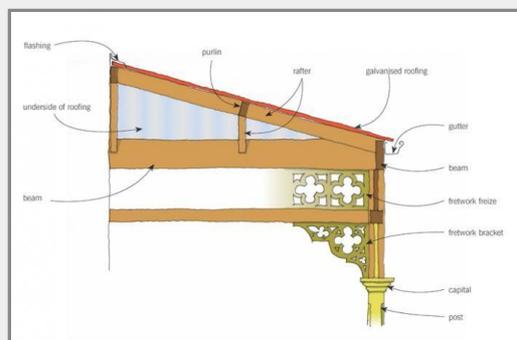
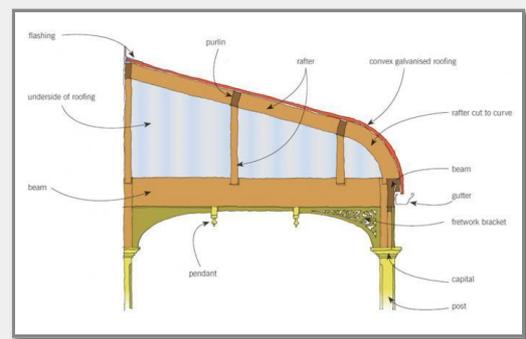
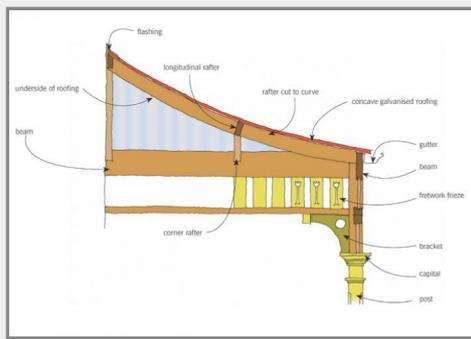
### VERANDA | PORCH

Where the villa veranda continued around an external corner of the building, the corner of the veranda was occasionally embellished with a turret either in the veranda itself or as part of an elaborate bay window with an ogee or concave roof structure.

#### Roofs over the verandas could be:

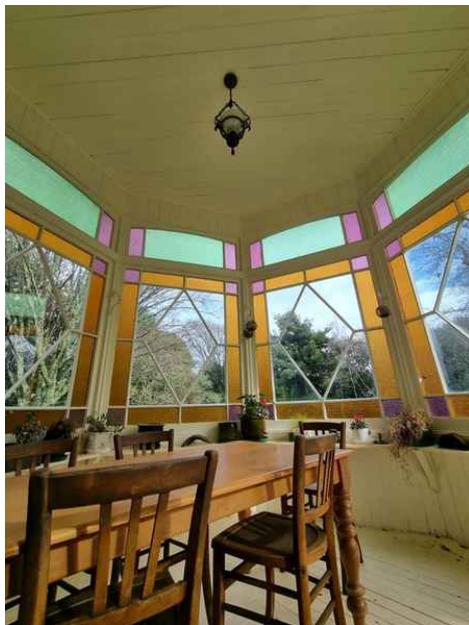
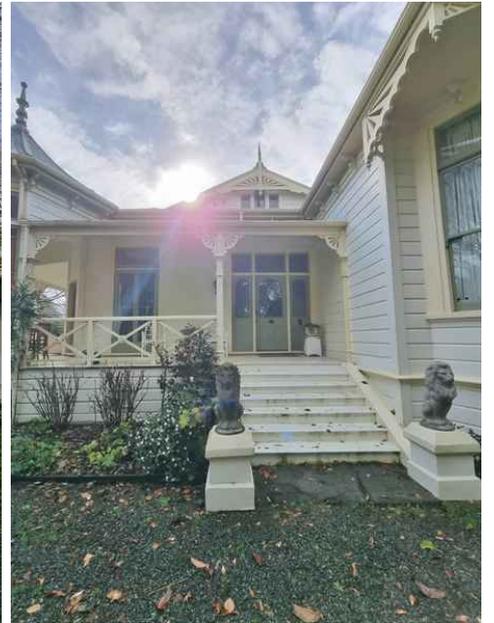
Concave (Figure 2). Convex or rounded edge (Figure 3). Straight (Figure 4)

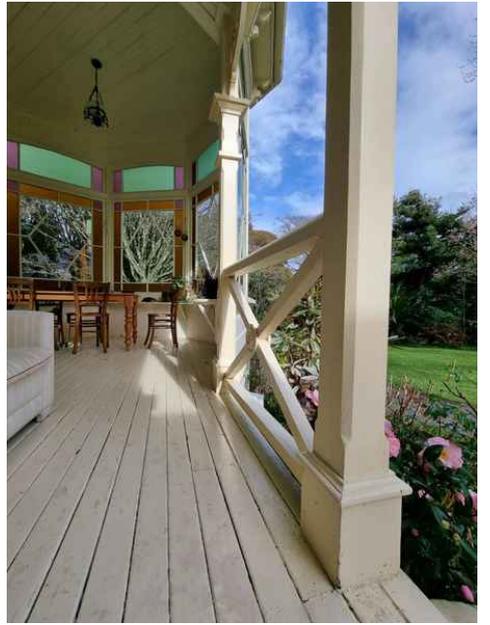
### 1900s - 1960s



**Verandas** were typically open to the front with a decking of 1" (25 mm) T&G timber laid to a fall to the outside. Decking was fixed over 3 x 2" (75 x 50 mm) framing that was fixed to the 4 x 2" (100 x 50 mm) joists installed to the fall. 4 x 4" (100 x 100 mm) planed or gauged posts holding up the roof were supported directly on the deck surface. The underside of the roofing was left exposed.

**Other features included:** Chamfering of the edges of posts – there are some examples remaining of round posts being used (Figure 1). Spacing to define entry points to the veranda – there was usually posts lining up with one or both sides of the entry door. A wide variety of fretwork and decoration. Turned balusters. Decorative moldings at the junction with corner brackets and/or timber or cast iron fretwork. Boxed-out bases to give solidity. The use of sparrow or baby iron profiles to the veranda or bay window roof. Closed-in veranda ends with coloured or textured glazing.







## 6: ROOFING

		IN	NI	NP	O
6.1	ROOF COVERINGS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

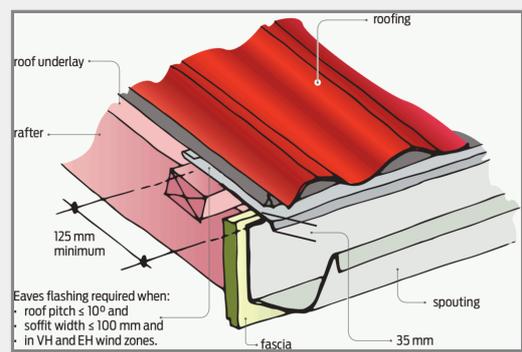
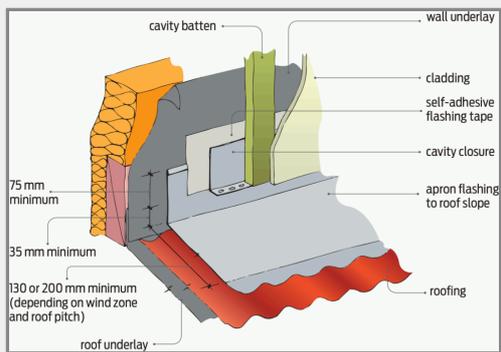
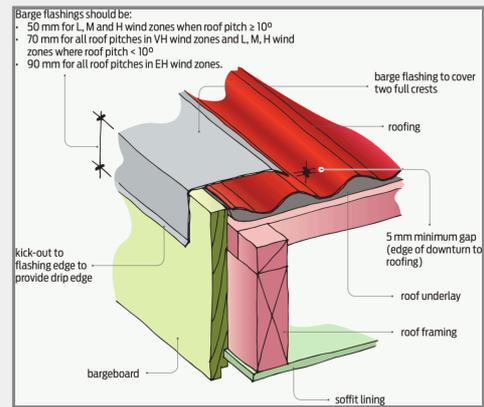
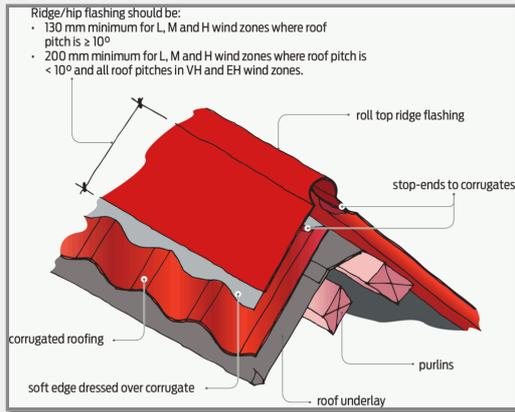
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**ROOF COVERINGS : CONVENTIONAL METAL ROOF COVERINGS**

**CONVENTIONAL "METAL" ROOF COVERINGS**

Metal roofing comes in long run and short run vertical panels, pressed metal tile detail or shingles resembling slate, tile and shake – and lasts about 60 years. Metal excels at sloughing off heavy snow and rain, won't burn and resists high winds. It is lightweight and can be installed over existing roofs. However, metal can be noisy during rainstorms, and may dent from hail. Average cost can range between suppliers, depending on type and style of metal, Corrosion also varies by material.

**ALWAYS MONITOR THE CONDITION OF YOUR ROOF FLASHINGS**



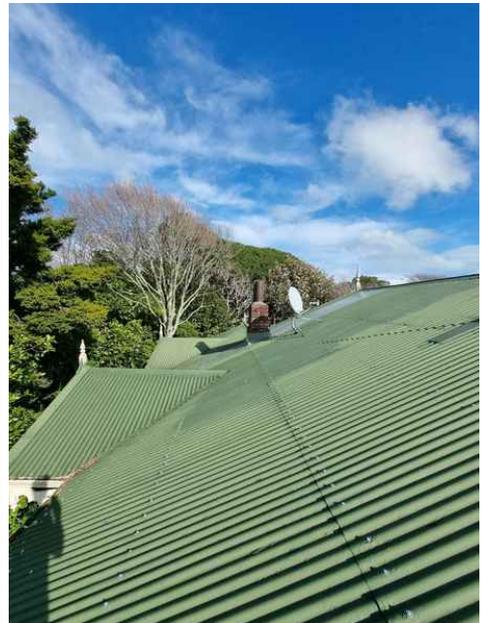
Flashings play a vital role in keeping water out of buildings. The type of roof flashings depends on what part of the roof is being flashed and what the roofing material is. Flashings are designed to stop water entering the building and should be designed to deflect water away. **Images provided are examples only**

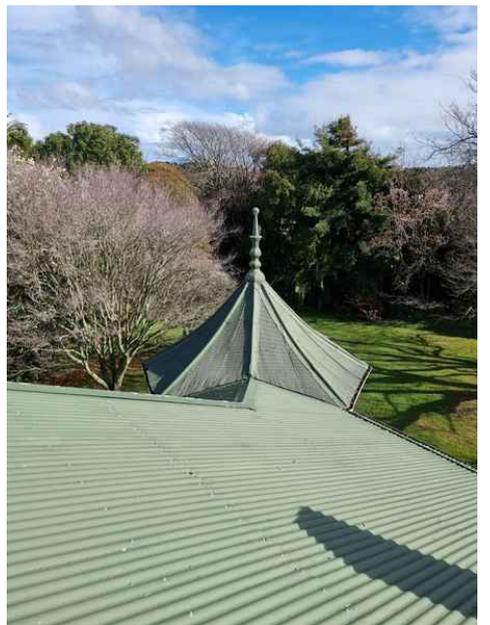
**UTILITIES PENETRATIONS**

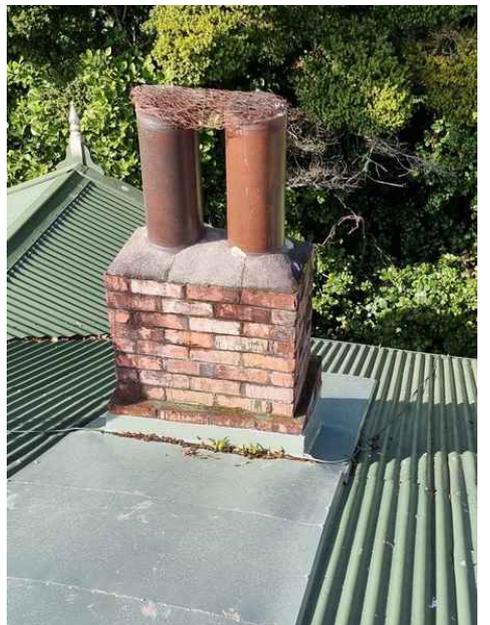
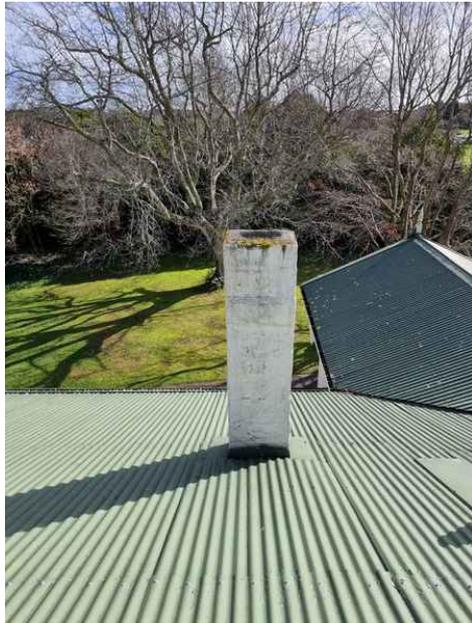
We recommend inspecting any roofing penetrations every six months or more. Moisture ingress around roofing penetrations can go unnoticed for some time, by the time you realize there is a problem the damage has already been done and the cost to repair has already gone through the roof. (Pun intended)

**BOOT & CHIMNEY FLASHINGS**

A boot flashing is a proprietary EPDM flashing designed to weatherproof cylindrical penetrations protruding from a roof or wall. The top is trimmed to form a tight weatherproof collar around the penetration, and the base is formed with a series of concentric rings to the underside and a malleable stiffener of aluminum which is dressed to conform to the shape of the roofing profile. It is generally top-fixed to the roof surface with screws or rivets, and sealant.



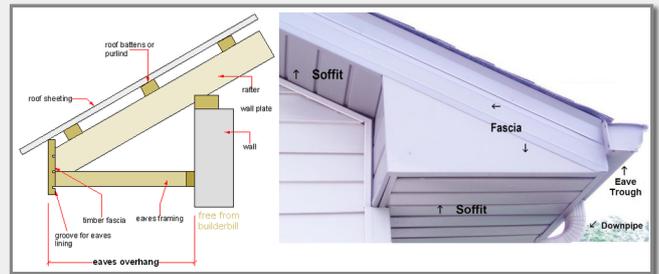
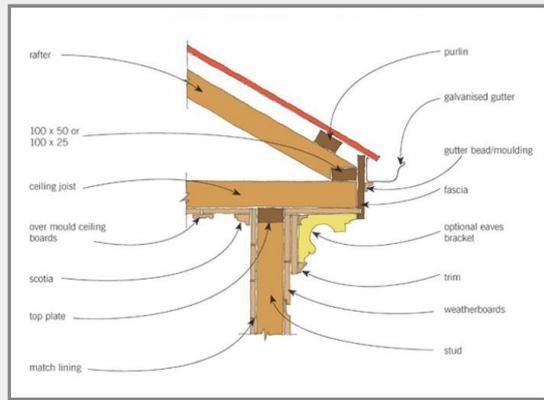




## ROOF COVERINGS : SOFFITS | FASCIAS | EAVES

**Different Types of Eaves:** These are several different sorts of eaves. A closed eave doesn't have much of an overhang, while an open eave stands proud well beyond the roof. Craftsman, an style of architecture often used on bungalows within the early 20th century, featured long open eaves. A good overhang design allows more winter sun to come in than summer sun— giving you more solar heat during the cooler months and more shading in hotter months. This can save energy and utility costs.

### 1900s-1960s EAVES & MODERN EAVES



The eaves to villas are described as boxed eaves and were typically around 8–12" (200–300 mm) wide and timber lined – often up to two board widths. A horizontal 12" (300 mm) wide top board was typically used to finish the top of the cladding to horizontal eaves with moldings to the intersections to form a frieze, and it was to this board that the eaves brackets (in a wide range of styles) were fixed (see Figure 1). In a number of more elaborate designs, a second 12" (300 mm) board was added. The fascia board to which the gutter was fixed was 8" (200 mm) wide, typically plain, but it often incorporated a molding to trim to the bottom of the gutter. The eave was finished with timber eaves brackets – generally the brackets were applied to the part of the building visible from the street and may be omitted from those areas not readily visible.

**ROOF COVERINGS : ROOF DRAINAGE**

**ROOF DRAINAGE**

The roof's purpose is to protect the structure, the people, and the things below. This means keeping your home sheltered from weather elements like wind, sun, and rain. Your roof's drainage system is an integral part of keeping your home protected since it controls the flow of water to prevent it from causing damage.



## 7: STRUCTURE

		IN	NI	NP	O
7.1	ROOFING STRUCTURE	X			X
7.2	FOUNDATION STRUCTURE	X			

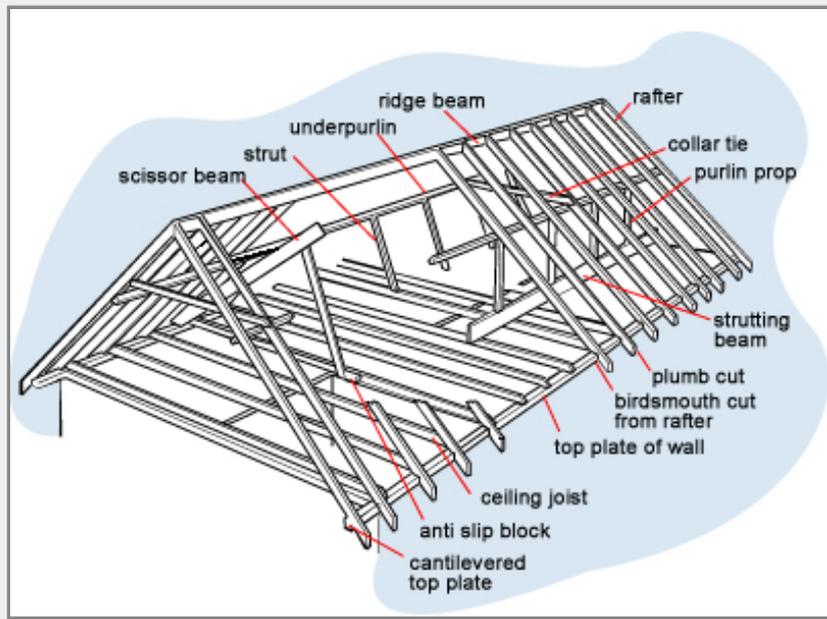
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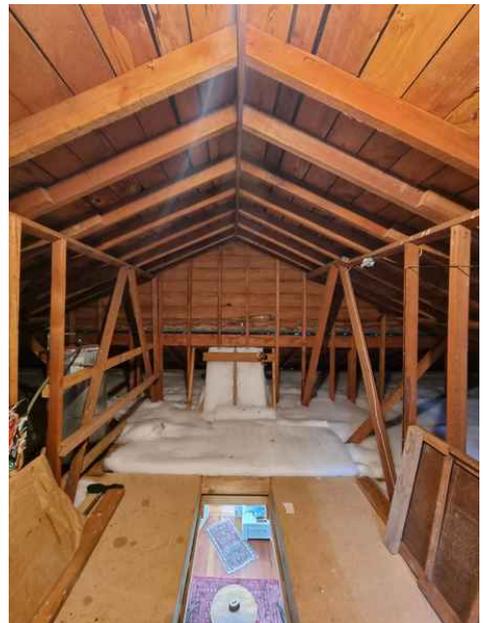
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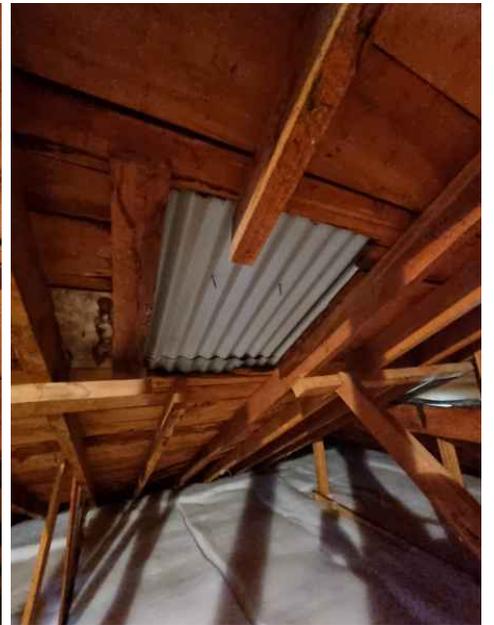
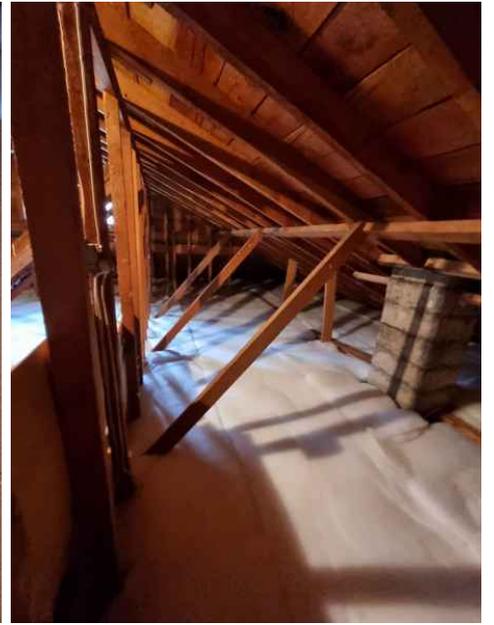
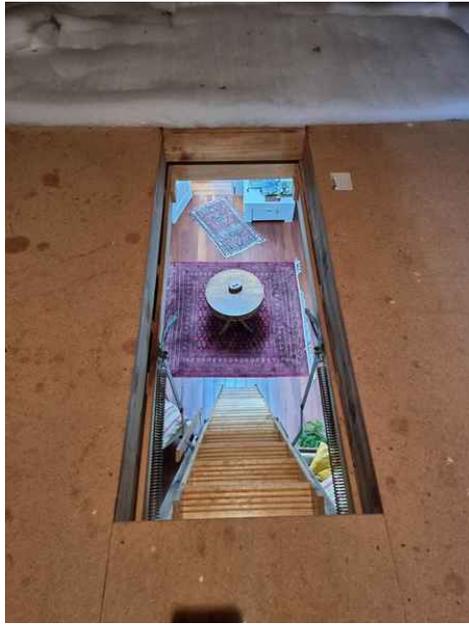
**ROOFING STRUCTURE: STRUCTURE**

**EXAMPLES OF ROOFING STRUCTURES**



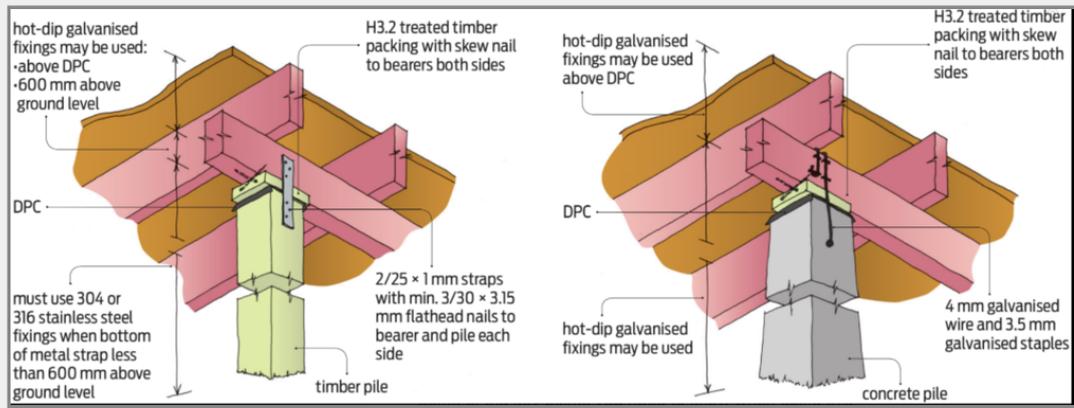
See **ROOFING INFORMATION** section for more information on roofing structures.





FOUNDATION STRUCTURE : PILES & SUBFLOOR

PILES AND STRUCTURAL CONNECTION POINTS



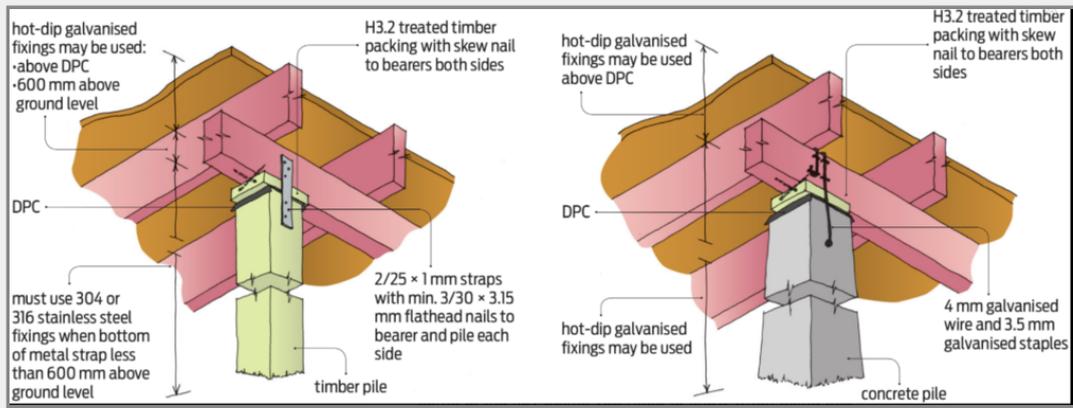
THIS SYSTEM MAY NOT APPLY EXAMPLE ONLY





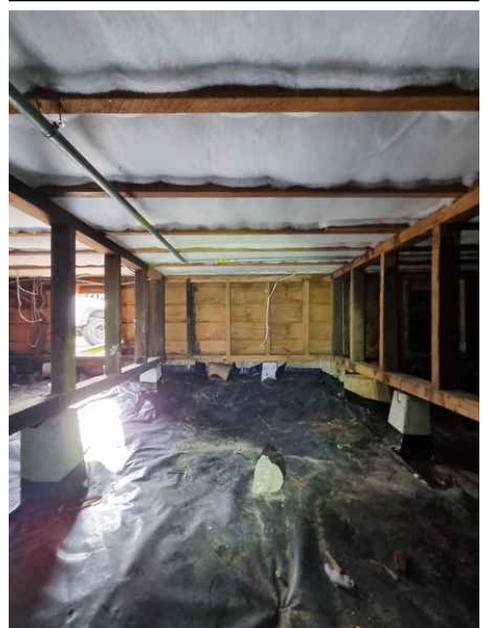
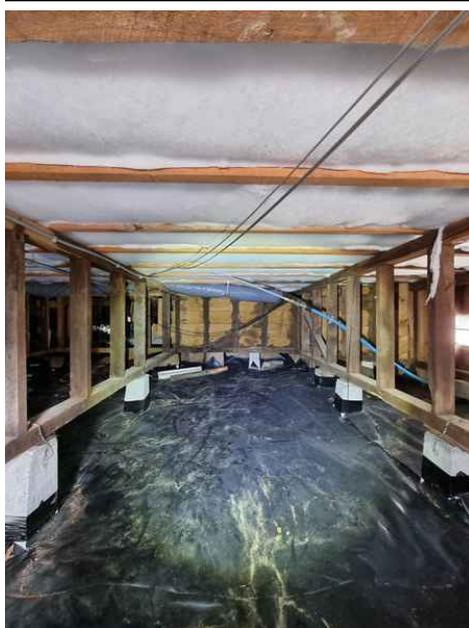
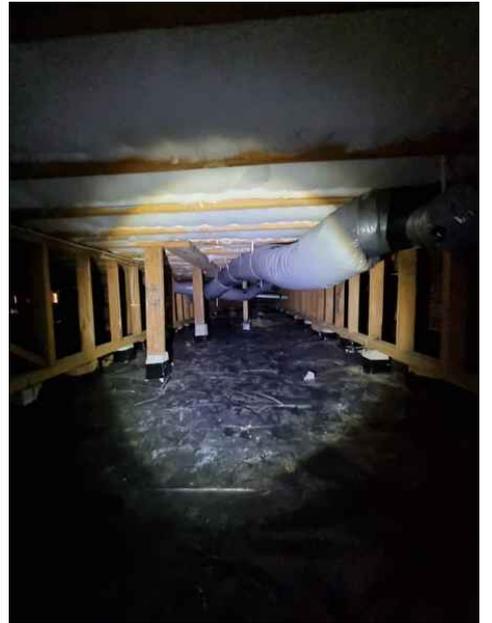
FOUNDATION STRUCTURE : PILES & SUBFLOOR 2

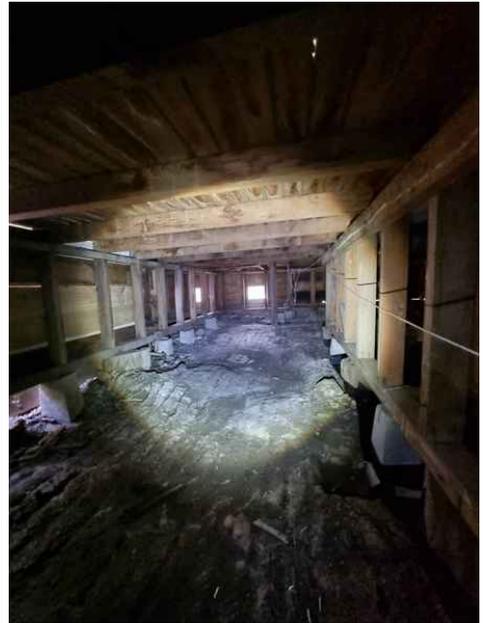
PILES AND STRUCTURAL CONNECTION POINTS



THIS SYSTEM MAY NOT APPLY EXAMPLE ONLY







# 8: GROUNDS

		IN	NI	NP	O
8.1	DRIVEWAY & YARD	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Information

### DRIVEWAY & YARD: DRIVEWAY/PAVING & YARD/SITE GRADIENTS

SITE GRADIENTS & GROUND DRAINAGE

**Figure 1:** Minimum Floor Level for Site Above Road  
Paragraph 2.0.1 a)

**SECTION**

**Figure 2:** Minimum Floor Level for Site Below Road  
Paragraph 2.0.1 b)

**SECTION**

Having the floor level wrong can lead to on-going moisture problems. It could also bring serious Building Code compliance problems and potential drainage problems due to insufficient heights of flooring above ground and/or lack of fall to the drains. The Building Code states that houses must be built so that a 50-year flood will not enter the building. Acceptable Solution E2/AS1 says that, on near-level sites, the floor level must be no less than 150 mm above the crown of the road or the lowest point of the boundary. For steep sites, specific design and consent as an Alternative Solution is required. E2/AS1 gives minimum heights of finished floor levels above ground for concrete slab floors and suspended timber floors, the measurements depending on whether there is grass or paving outside. NZS 3604 sets a minimum height above ground for wood-based products used for flooring. E2/AS1 also gives a minimum threshold height of 100 mm at an opening onto a waterproof deck.



## 9: UTILITIES & INSULATION

		IN	NI	NP	O
9.1	UNDERFLOOR   UTILITIES & INSULATION	X			
9.2	CEILING CAVITY   UTILITIES & INSULATION	X			
9.3	EXTERIOR   UTILITIES & SWITCHBOARD	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

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**UNDERFLOOR | UTILITIES & INSULATION : ELECTRICAL | PLUMBING | UNDERFLOOR GROUND DRAINAGE**

**ELECTRICAL**

**Wiring:** Any homes containing the old wiring should be rewired with TPS (Tough Plastic Sheath) as soon as possible and have their fuses replaced with circuit breakers and residual current devices.

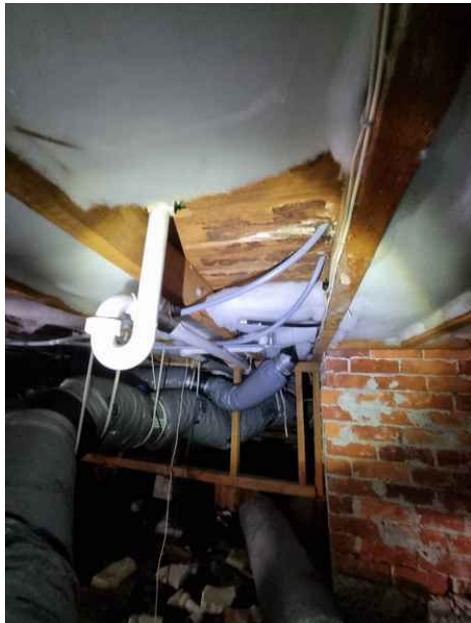
**PLUMBING**

**Plumbing:** Every effort was made but It is not possible for our inspectors to 100% definitively say there was no polybutylene pipe at the property. For example if the original shower lining is still intact, chances are there will be Dux Quest in the wall cavity behind it. Also there may be polybutylene pipes hidden beneath insulation in the attic or underfloor area.

**UNDERFLOOR DRAINAGE SYSTEMS**

**The underfloor area was inspected for:** Correct ground gradients, Areas of standing water, Areas for water to potentially pool and/or How rain water could enter the underfloor area, What erosion paths it may be making and is there sufficient drainage outlets for it to exit the areas.





**UNDERFLOOR | UTILITIES & INSULATION : POLYESTER INSULATION****POLYESTER INSULATION**

This is often made from recycled plastic, such as PET drink bottles – an eco-friendly way to turn a waste product into a green insulation resource. It offers a good level of insulation performance, especially when installed as a large ‘blanket’ that rolls out to cover the entire roof space, including joists. This is an excellent way to minimise hidden heat loss. Harrisons Home Energy Solutions uses a polyester insulation brand that contains no chemical additives, unlike some fibreglass insulation products.



**CEILING CAVITY | UTILITIES & INSULATION : ELECTRICAL | PLUMBING | UTILITY ROOF PENETRATIONS**

**ELECTRICAL**

**WIRING:** All live wires sighted were TPS and showed no major defect. The property appears to have been rewired to a good standard. Any homes containing the old wiring should be rewired with TPS (Tough Plastic Sheath) as soon as possible and have their fuses replaced with circuit breakers and residual current devices.

**PLUMBING**

**PLUMBING:** Every effort was made but It is not possible for our inspectors to 100% definitively say there was no polybutylene pipe at the property. For example if the original shower lining is still intact, chances are there will be Dux Quest in the wall cavity behind it. Also there may be polybutylene pipes hidden beneath insulation in the attic or underfloor area. We have provided you information to be able to identify polybutylene pipe yourself, if you happen across it during any renovations of the property.

**UTILITY ROOF PENETRATIONS**

**ROOF PENETRATIONS:** All accessible roofing penetrations were inspected from within the ceiling cavity, plus all penetration flashings, boots and/or general weather sealing around penetrations was inspected from the exterior.



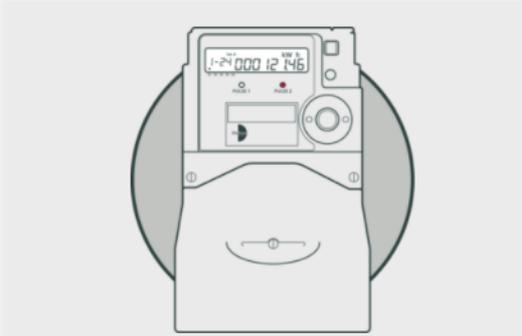
**CEILING CAVITY | UTILITIES & INSULATION : POLYESTER INSULATION****POLYESTER INSULATION**

This is often made from recycled plastic, such as PET drink bottles – an eco-friendly way to turn a waste product into a green insulation resource. It offers a good level of insulation performance, especially when installed as a large ‘blanket’ that rolls out to cover the entire roof space, including joists. This is an excellent way to minimise hidden heat loss. Harrison's Home Energy Solutions uses a polyester insulation brand that contains no chemical additives, unlike some fibreglass insulation products.



EXTERIOR | UTILITIES & SWITCHBOARD: METER | CIRCUIT BREAKERS | FUSES

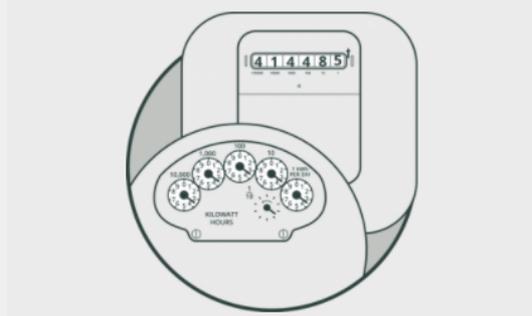
WIRING & FUSES



SMART METERS

Most of our customers now have smart meters. They record the amount of electricity you're using at half hourly intervals.

Smart meters are fitted with a wireless communication device and if the meter can communicate, i.e. there's mobile phone coverage, that information is sent each night. No need for anyone to visit your property, be at home or disturb your pets.



ANALOGUE METERS

This type requires a meter reader to visit your property and physically record the amount of electricity you've used since the last time it was read.

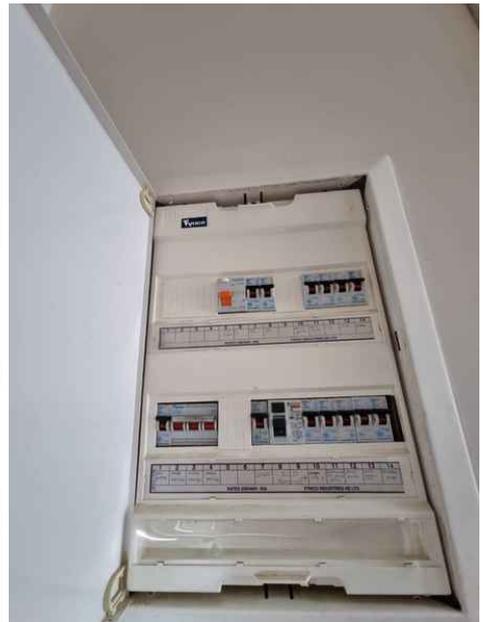
Energy retailers will often 'estimate' your consumption, i.e. the units used, every second month to reduce meter reading costs.

Analogue meters can't record how much electricity you've used at different pricing times. This means you won't be able to take advantage of our peak, shoulder and off-peak pricing. Instead, you'll pay the same amount throughout the day regardless of when your electricity is used.

YOUR METER INFORMATION

When we visually inspect your power meter, we look for any potential problems with your property's electrical facilities. We don't complete a full electrical inspection of the electrical systems, but we'll let you know if we see a problem and if repairs are needed. Inspections may identify damage or exposure of electrical service wires, meter base, meter socket, or electric service grounds. We might also find electrical service tampering.

\*Any homes containing the old wiring should be rewired with TPS (Tough Plastic Sheath) as soon as possible and have their fuses replaced with circuit breakers and residual current devices.



**EXTERIOR | UTILITIES & SWITCHBOARD: PLUMBING****MAINS WATER PLUMBING**

Property owners are responsible for the remainder of the water system to their residence and inside the building. The best defense against a water emergency is knowing where the main water shut off valve is located inside your structure and ensuring that it is functional. A toby is the water shut-off valve, generally located at the boundary of your property, that sits between the council water main and your private water pipe. The toby allows the water to your house to be shut off - handy if you're having some plumbing work done or if your hot water cylinder springs a leak. Simply lift the cover and turn the handle of the toby until the water is turned off. A toby may also be known as a stopcock or isolated valve. The toby is usually under a black or blue plastic cover or under a metal cover

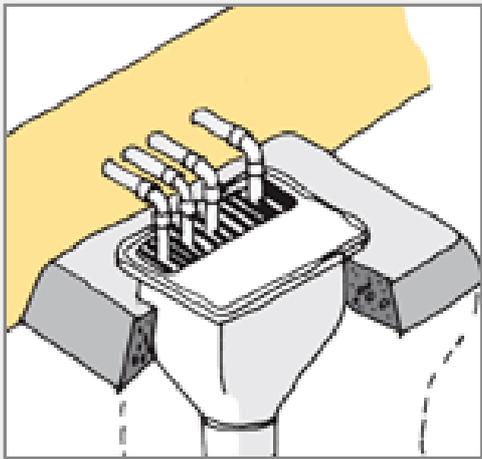
**TYPES OF FIXINGS**

Wastewater fixtures are all sanitary fixtures or appliances that receive wastewater and are not soil fixtures. Wastewater fixtures include hand basins, showers, baths, sinks and tubs. Soil fixtures collect solid and liquid excreted human waste and include toilets, urinals, slop sinks and so on. Soil fixtures must discharge directly into a drain or to a discharge stack.

**GULLY TRAPS & GREY WATER PLUMBING**

**Gully traps** receive discharge from wastewater fixtures. One gully trap may receive discharge pipes from several outlets. Each residential building must have at least one gully trap. If a drainage system becomes blocked, the gully trap provides the point where sewage can overflow outside the building, instead of building up inside the pipe and overflowing inside the building.

**Gully traps must:** have an overflow rim at least 150 mm below the overflow level of the lowest fixture served by the system, be located within the legal boundary of the land on which the building stands, prevent surface water from entering the trap, be constructed so the grate will lift to allow surcharge, have at least one discharge pipe feeding into it to maintain the water seal.

**GREY WATER PLUMBING****GULLY TRAPS**



**EXTERIOR | UTILITIES & SWITCHBOARD: ELECTRICAL**

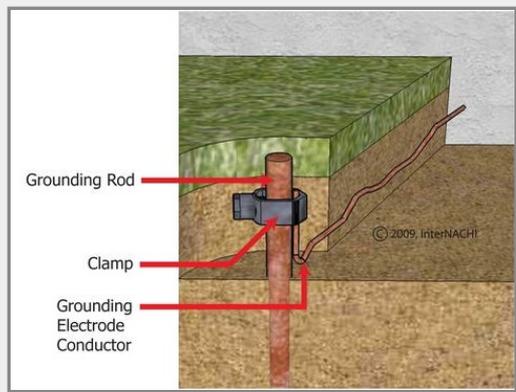
**MAINS POWER ENTRY | OTHER ELECTRICAL ITEMS**

Many home owners do not realise they are responsible for power lines and poles which supply electricity to their property. Inside private property boundaries, owners are legally responsible for the safety and maintenance of their electrical installation.

**GROUNDING ROD/SPIKE**

Electrical grounding systems divert potentially dangerous electrical currents by providing a path between a building's service box and the earth. Lightning and static electricity are the most common sources of dangerous or damaging charges that can be dissipated through a grounding system. Grounding electrodes are connected to the building's electrical system through grounding electrode conductors, also known as ground wires.

**EXAMPLE ONLY**



**EARTH SPIKE**





**EXTERIOR | UTILITIES & SWITCHBOARD: VENTS****EXTRACTION VENTS**

NZ Healthy Homes Standards require extractor and exhaust fans to be vented to the outside of the building with an vent cap. If not installed and/or installed incorrectly, the excessive moisture will cause condensation and moisture damage on ceilings and walls. This can cause mould and moisture damage inside the walls and/or ceiling cavity.



**EXTERIOR | UTILITIES & SWITCHBOARD: GAS**

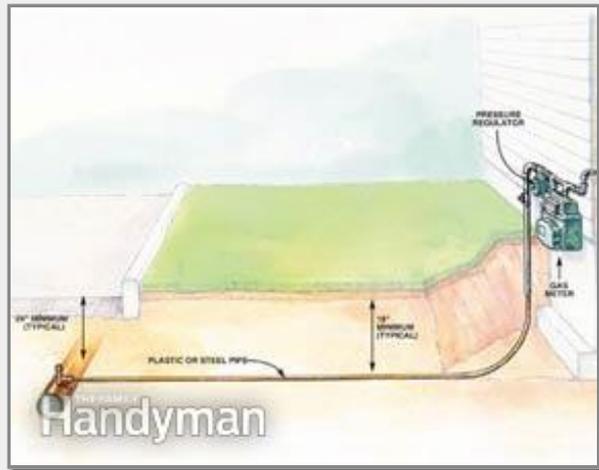
**MAINS GAS**

**Main gas shut off valve**

Your main shut off valve is located just before the gas meter. This is called your "street side valve". On the inside of your house, where the pipe enters your house, you can find your "house side valve." This ball valve is attached to a black iron pipe. (Newer homes) Once you've located your main shutoff valves, it is a good idea to label them.

This illustration shows how gas is brought into the house from the street.

**EXAMPLE ONLY**



**TYPICAL GAS SYSTEM**



# 10: HOT WATER SYSTEM

		IN	NI	NP	O
10.1	GAS HOT WATER SYSTEM	X			

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Information

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**GAS HOT WATER SYSTEM : RINNAI A\*\* RANGE****Gas type**

Available for Natural Gas or LPG, specify at the time of purchase

Available fixed temperatures

40, 42, 50, 55, 60, 65 °C

Codes and REU numbers

- A16: INFA16N/L, REU-A1620WG-ZK
- A20: INFA20N/L, REU-A2024WG-ZK
- A24: INFA24N/L, REU-A2426WG-ZK
- A26: INFA26N/L, REU-A2626WG-ZK

Hot water capacity

- A16: 1.5-16 L/min
- A20: 1.5-20 L/min
- A24: 1.5-24 L/min
- A26: 1.5-26 L/min

Input and output

Model	Input MJ/h	Output kW
A16	16.3-124	27.8
A20	19.9-156	34.9
A24	16.3-184	42.0

A26	16.3-199	44.5
-----	----------	------

Exhaust system

Forced flue

Frost protection

Fitted as standard. Frost protection operates automatically, as long as the appliance is connected to the electrical power supply, by activating when the temperature inside the unit drops below 3.5 °C, and turns off once the temperature inside the unit reaches 7 °C.

Ignition system

Direct electronic ignition

Injector sizes

Model	NG	LPG
A16	0.9, 1.50	0.71, 1.09
A20-A26	1.08, 1.80	0.73, 1.12

Line pressure (min.)

NG - 1.13kPa, LPG - 2.75 kPa

Line pressure (max.)

3.5 kPa (maximum standing pressure under abnormal intermittent conditions is 5.0 kPa).

In the case of commercial metering, (i.e. 35-37 kPa coming in), there may be a requirement to regulate the incoming pressure down.

Power consumption

- Normal: 47 W (A16), 58 W (A20), 56 W (A24), 66 W (A26)
- Standby: 2 W
- Automatic frost protection: 68 W

Pressure relief

Valve opens at 2060 kPa, closes at 1470 kPa

Water supply

Nominal operating pressure:

- A16: 120-1000 kPa
- A20: 160-1000 kPa
- A24: 200-1000 kPa
- A26: 200-1000 kPa

Activation flow rate: 1.5 litres per minute

Please note: If the water inlet pressure or flow rate drops below the minimum values stated above, operation of the INFINITY is not guaranteed. The unit requires both minimum flow rate and pressure to operate correctly.

Noise level

50 dB(A). Some people are susceptible to low level noise. This needs to be considered if locating an appliance near a bedroom.

NOx af

35 ppm

Safety devices

- Flame failure
- Boil-dry protection

- Overheat protection
- Fusible link
- Pressure relief valve
- Combustion fan RPM check



# 11: HEATING SYSTEMS

		IN	NI	NP	O
11.1	HEATING SYSTEMS	X			

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Information

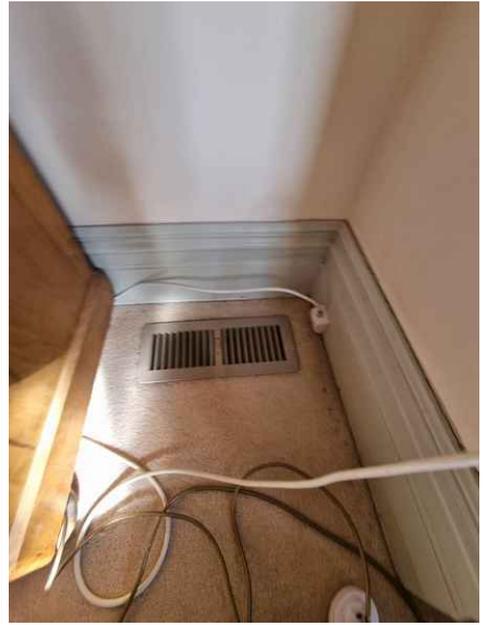
### HEATING SYSTEMS: FUEL BURNING FIRE

These photos represent areas that were inspected for defects. Any issues with these areas will be located in the observation section.



### HEATING SYSTEMS: HEAT TRANSFER SYSTEM / CENTRAL HEATING SYSTEM

These photos represent areas that were inspected for defects.  
Any issues with these areas will be located in the observation section.





## 12: INTERIOR INSPECTION

		IN	NI	NP	O
12.1	HALLWAY   COMMON AREAS   BEDROOMS	X			X
12.2	KITCHEN   LAUNDRY   BATHROOM AREAS	X			
12.3	HAYLOFT/GARAGE CONVERSION   GARAGE   CAR PORT   STORAGE & TOOL SHED	X			X
12.4	SMOKE DETECTORS	X			

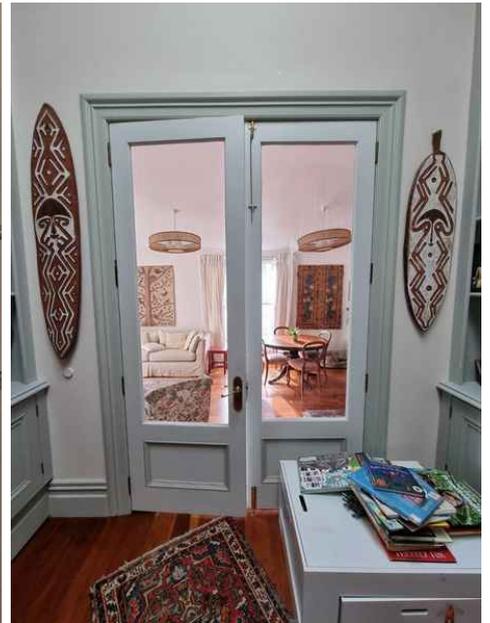
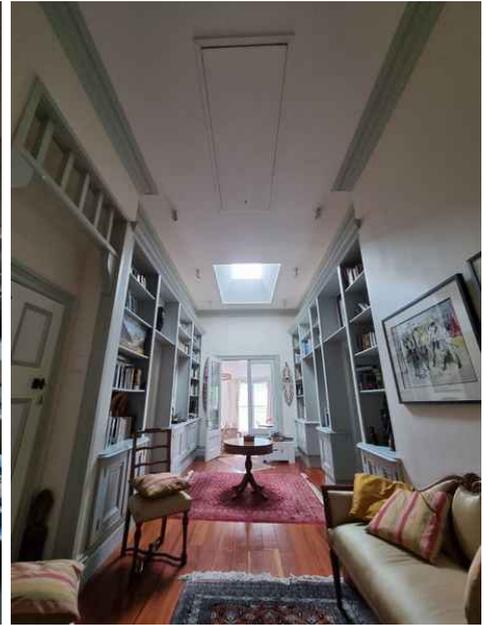
IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

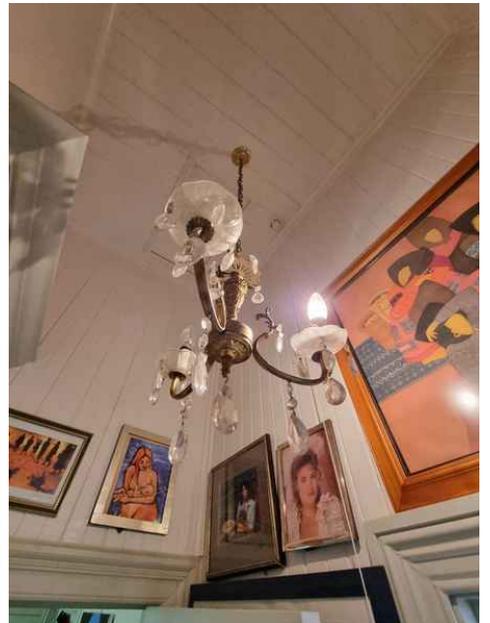
### Information

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**HALLWAY | COMMON AREAS | BEDROOMS: COMMON AREAS****COMMON AREAS****Inspected items:**

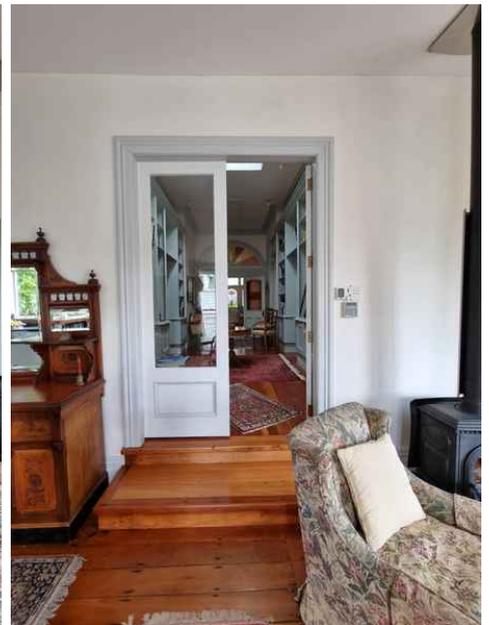
- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.





**HALLWAY | COMMON AREAS | BEDROOMS: DINING AREA****LIVING AREA****Inspected items:**

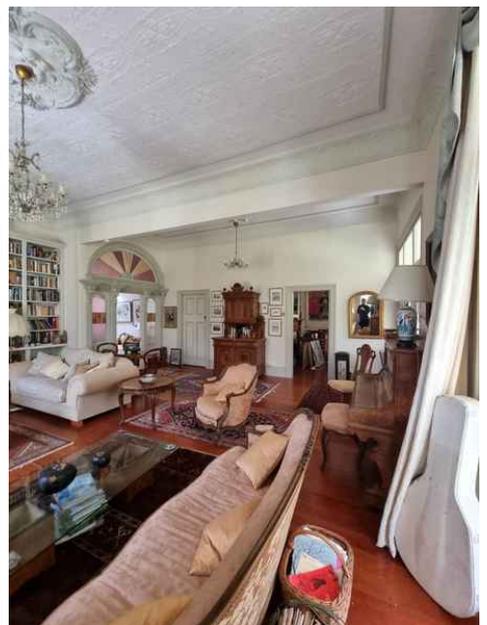
- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.



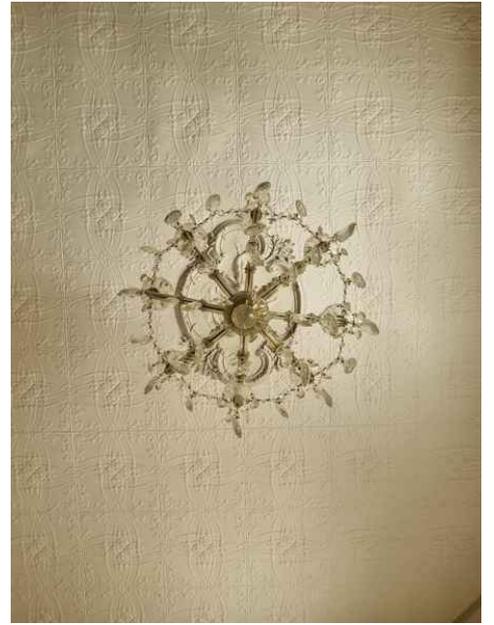


**HALLWAY | COMMON AREAS | BEDROOMS: GRAND LOUNGE AREA****GRAND LOUNGE AREA****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.

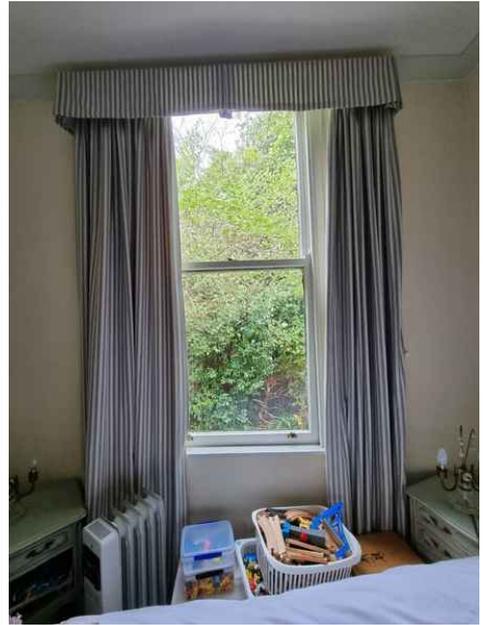






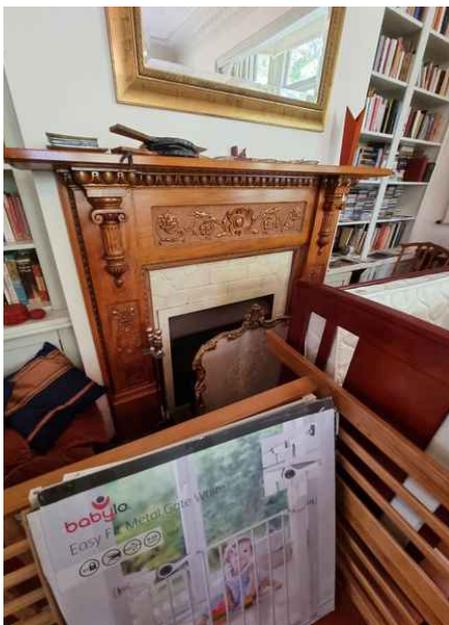
**HALLWAY | COMMON AREAS | BEDROOMS: BEDROOM 1****BEDROOM 1****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.



**HALLWAY | COMMON AREAS | BEDROOMS: BEDROOM 2****BEDROOM 2****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.





**HALLWAY | COMMON AREAS | BEDROOMS: BEDROOM 3****BEDROOM 3****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.



**HALLWAY | COMMON AREAS | BEDROOMS: BEDROOM 4****BEDROOM 4****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.



**HALLWAY | COMMON AREAS | BEDROOMS: BEDROOM 5****BEDROOM 5****Inspected items:**

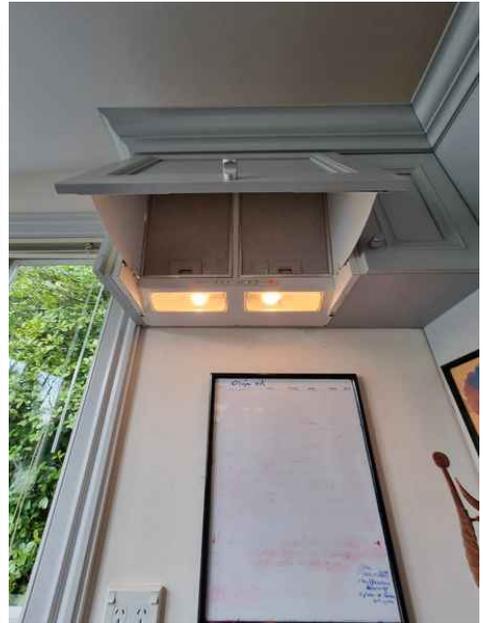
- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.



**KITCHEN | LAUNDRY | BATHROOM AREAS: KITCHEN****KITCHEN****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Overall condition of Cabinetry hardware and Benchtop. Operation of Cabinetry doors and/or drawers, Mounting of Sink/bench and/or Silicone seal walls and/or cabinetry.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.
- Operation and Overall condition of Oven, Stovetop & Rangehood.
- Rangehood operability and rate of extraction,.
- Operation and Overall condition of Faucets, Mixers, Shower heads,Taps. Etc
- Drainage rates, Visible restrictions, Common areas for Leaks, Installation quality and Pressure of Supply plumbing at supply unit.

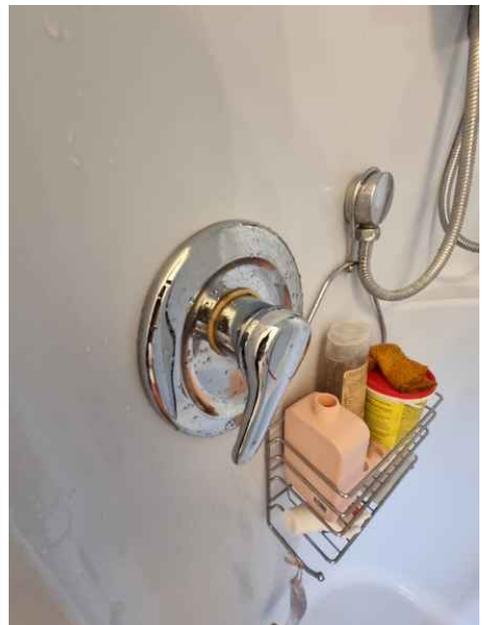


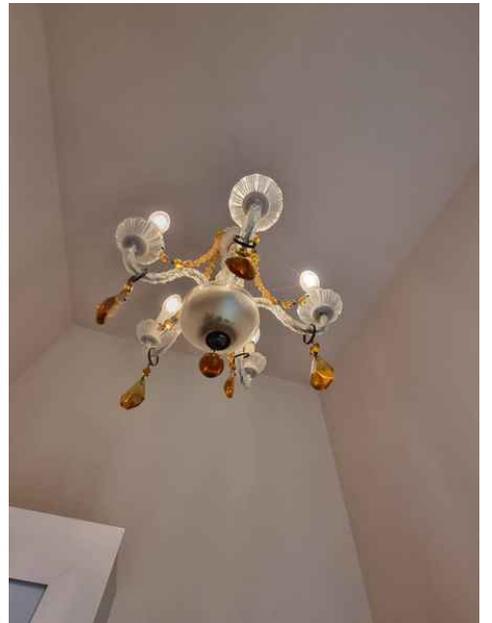


**KITCHEN | LAUNDRY | BATHROOM AREAS: BATHROOM 1****BATHROOM 1****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Overall condition of Cabinetry hardware and Vanity unit. Operation of Cabinetry doors and/or drawers, Mounting of Sink/vanity unit and/or Silicone seal walls and/or cabinetry.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.
- Bathroom room heating, Underfloor heating (Operation of control unit), Mounting of Heated towel rail.
- Bathroom extraction units and Rate of extraction.
- Operation and Overall condition of Extraction fans.
- Operation, Overall condition and Mounting of Faucets, Mixers, Shower heads, Taps.
- Operation, Overall condition and Mounting of Toilets, Baths, Showers, Shower liner adhesion to wall linings and Common areas for moisture damage around these units.
- Drainage rates, Visible restrictions, Common areas for Leaks, Installation quality and Pressure of Supply plumbing at supply unit.

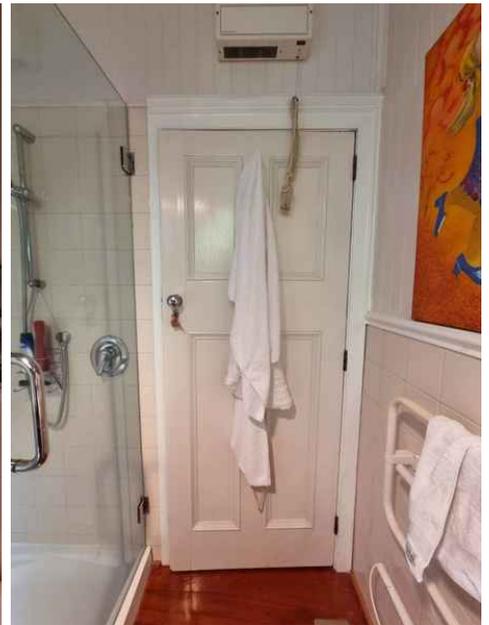


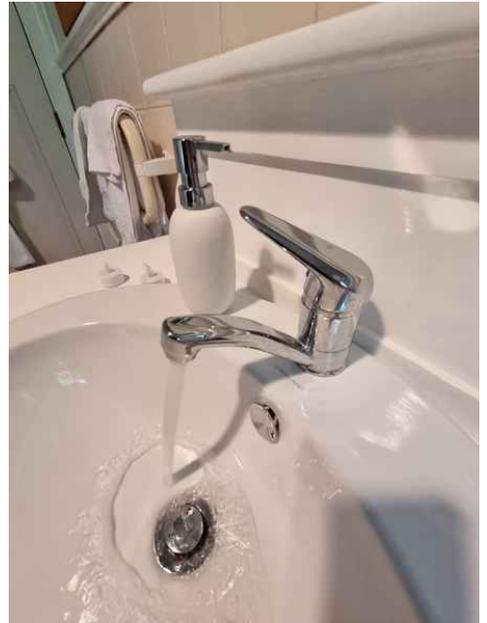




**KITCHEN | LAUNDRY | BATHROOM AREAS: BATHROOM 2****BATHROOM 2****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Overall condition of Cabinetry hardware and Vanity unit. Operation of Cabinetry doors and/or drawers, Mounting of Sink/vanity unit and/or Silicone seal walls and/or cabinetry.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.
- Bathroom room heating, Underfloor heating (Operation of control unit), Mounting of Heated towel rail.
- Bathroom extraction units and Rate of extraction.
- Operation and Overall condition of Extraction fans.
- Operation, Overall condition and Mounting of Faucets, Mixers, Shower heads, Taps.
- Operation, Overall condition and Mounting of Toilets, Baths, Showers, Shower liner adhesion to wall linings and Common areas for moisture damage around these units.
- Drainage rates, Visible restrictions, Common areas for Leaks, Installation quality and Pressure of Supply plumbing at supply unit.







**KITCHEN | LAUNDRY | BATHROOM AREAS: LAUNDRY AREA****LAUNDRY AREA****Inspected items:**

- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.
- Overall condition of Cabinetry hardware and Benchtop. Operation of Cabinetry doors and/or drawers, Mounting of Sink/bench and/or Silicone seal walls and/or cabinetry.
- Operation and Overall condition of Switches, Switch sockets, RCD's. Earth at wall unit and Phantom power at wall unit when the units switch is in the off position.
- Lighting function and Room illumination.
- Ventilation for clothes dryer.
- Operation and Overall condition of Faucets,Taps. Etc
- Drainage rates, Visible restrictions, Common areas for Leaks, Installation quality and Pressure of Supply plumbing at supply unit.



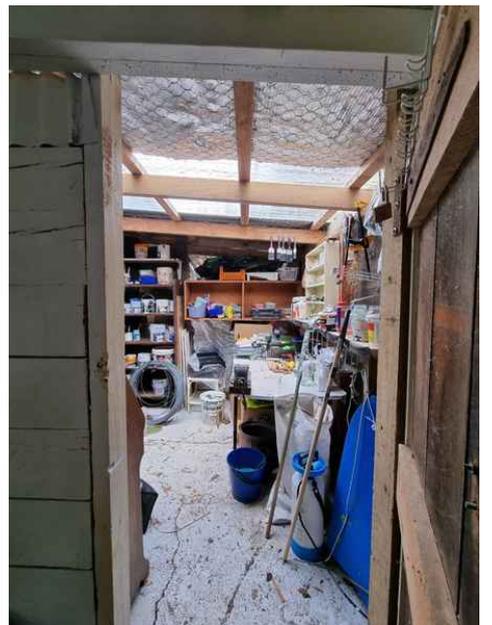
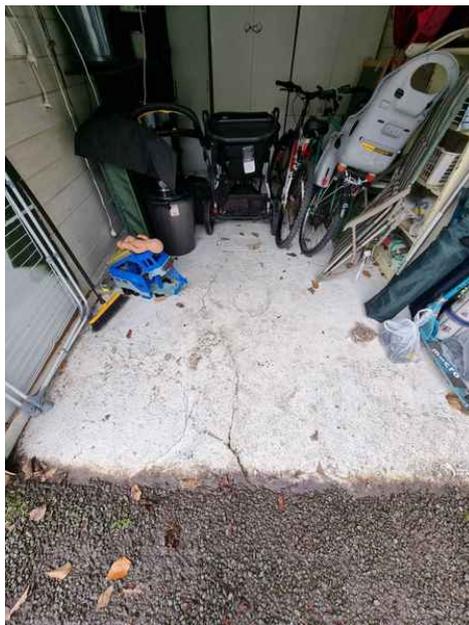
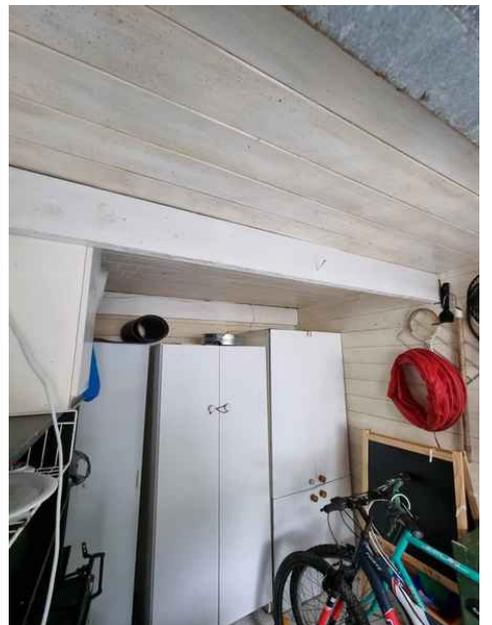
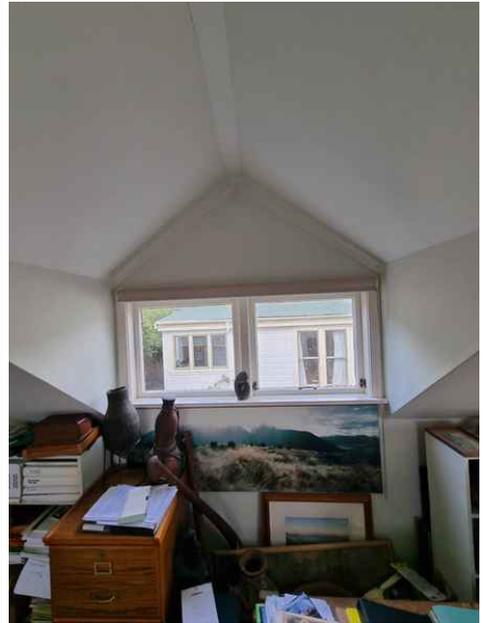


**HAYLOFT/GARAGE CONVERSION | GARAGE | CAR PORT | STORAGE & TOOL SHED: HAYLOFT\GARAGE  
CONVERSION | GARAGE | CARPORT | STORAGE & TOOL SHED****HAYLOFT\GARAGE CONVERSION | GARAGE  
CARPORT | STORAGE & TOOL SHED****Inspected items:**

- Spiral staircase.
- Overall condition of Ceilings, Floor coverings, Wall linings.
- Above areas were also inspected for moisture ingress and/or moisture damage.
- Car door, Internal doors, Overall condition, Operation of units and hardware.
- Windows and/or Doors to the exterior, Overall condition, Operation of units and hardware.









## SMOKE DETECTORS : SMOKE DETECTORS | ALARM SYSTEMS

### SMOKE DETECTORS | ALARM SYSTEMS

#### Inspected items:

- Operation, placement and Overall condition of Smoke Detectors
- Documentation of Alarm systems.

These photos represent areas that were inspected for defects.  
Any issues with these areas will be located in the observation section.



13: 2/3

## Information

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### |: SECTION 2/3 OBSERVATIONS

## SECTION 2/3 OBSERVATIONS

- **2/3: Observations that were identified during the inspection**

THE BLANK PAGES BETWEEN SECTIONS ARE FOR YOU TOO WRITE ANY QUESTIONS YOU MAY HAVE ON THE DIFFERENT COMPONENTS WITHIN THIS REPORT

# 14: OBSERVATIONS | INTERIOR

		IN	NI	NP	O
14.1	INTERIOR OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Observations

14.1.1 INTERIOR OBSERVATIONS

Maintenance Item

### MINOR DAMAGE | AGE RELATED ISSUE

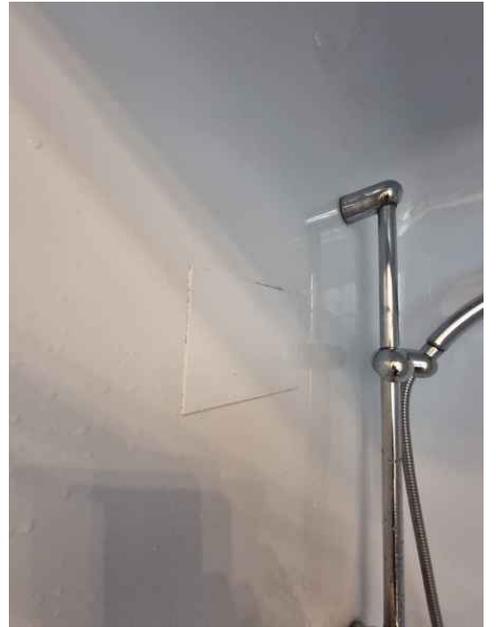
### MINOR DAMAGE | AGE RELATED ISSUE

Items in this section are defined as a minor damage rating and/or an age related issue.

### FINISHINGS

Isolated areas of sub-standard finishing and/or age related wear to interior linings. These should all be a relatively simple fix if you wish to get the area/s finished to a higher standard. We have provided the contact number for a well reputable company who specialize in this area. [PROSTOP FINISHINGS](#) - 022 356 9527





14.1.2 INTERIOR OBSERVATIONS  
**DAMAGE AT OR IN JOINERY**

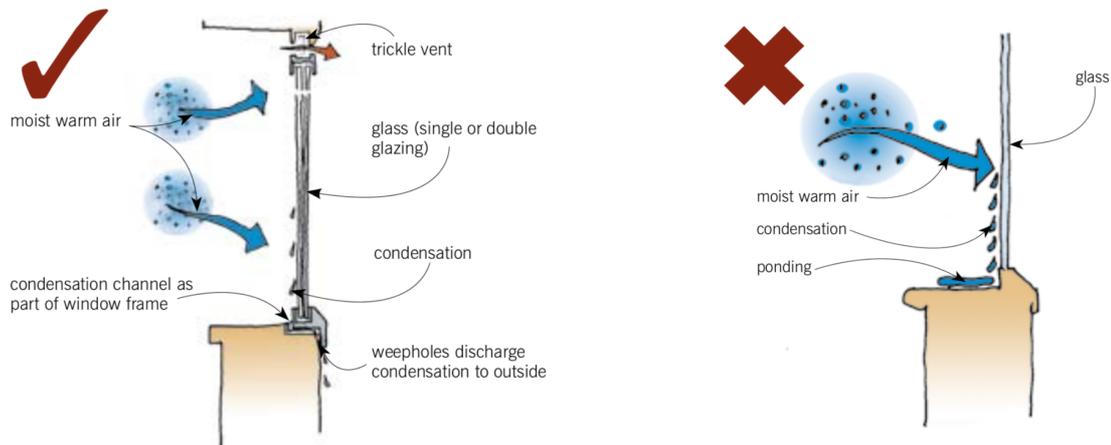
 Maintenance Item

## DAMAGE AT OR IN JOINERY

**Hardware operation, joinery damage and/or draught seal** observations noted.

**Water damage:** around windows can be caused by condensation or leaks. Try to reduce the amount of condensation in your home.

### CONDENSATION DAMAGE AT JOINERY



#### 14.1.3 INTERIOR OBSERVATIONS

### DEVELOPING AND/OR PRE-EXISTING MOISTURE INGRESS



**NOTABLE TEMPERATURE DIFFERENTIALS  
AND/OR  
INDICATIONS OF ELEVATED MOISTURE LEVELS**

Images/areas documented in this observation may be showing moderate to high temperature differentials with the FLIR MR277 Thermal Imaging camera and/or elevated moisture levels with the FLIR MR60 Moisture meter. These areas may not be at the through-wall stage yet, they may be considered areas with a "developing" issue that, if remedied sooner rather than later should not develop into a major concern. Regardless of what stage they are currently at, they must still be monitored closely even after repair work has been done.



# 15: OBSERVATIONS | CLADDING

		IN	NI	NP	O
15.1	CLADDING OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Observations

15.1.1 CLADDING OBSERVATIONS

### **OBSERVATION | WEATHERBOARD CLADDING**



## OBSERVATION | CLADDING

One or more of the following may apply:

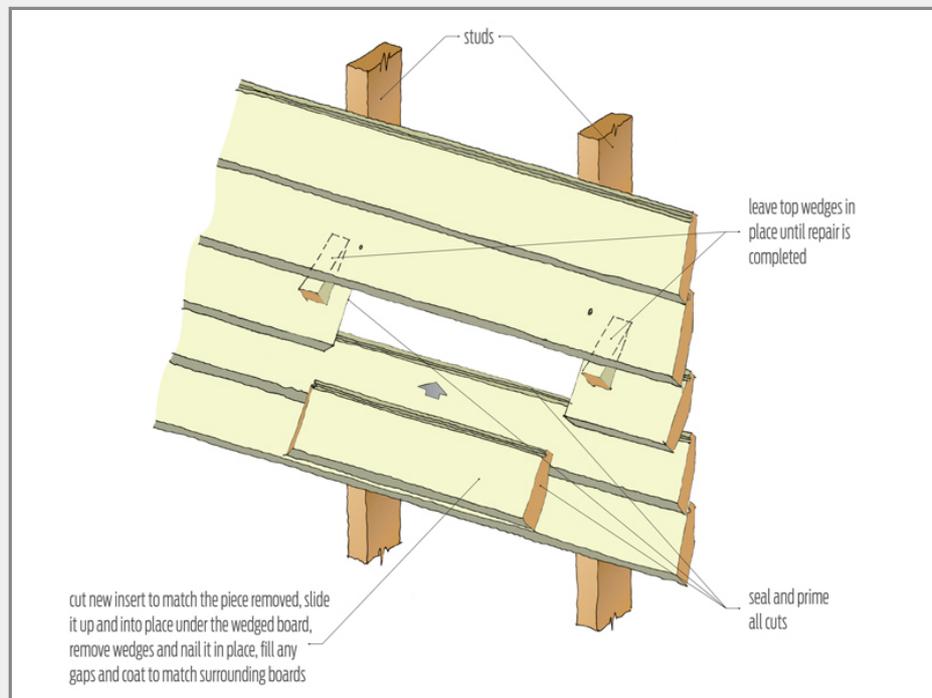
- Siding too close to and/or in contact with the ground. (Rot noted in some of the lower timber weatherboards but very little considering the age and overall size of this building)
- Some isolated open cladding joins.
- Some isolated cracks and/or splits in cladding.

This can be caused by:

- Unboxed corners.
- Moisture ingress damage.
- Ground clearance issues.
- Double nailing.
- Timber can dried out, or is subject to large amounts of heat, typically on a north or north-west facing wall.

## SOLUTION

When replacing badly damaged timber, replace them with a single line of nails – generally weatherboard and battens should only have one nail per stud or dwang. Pre drilling nail holes at the end of any weatherboards with a smaller drill bit. You shouldn't need to pre-drill the other holes unless you are hanging Linea, and in the situation you will require a masonry drill bit, not an HSS drill bit. Ensure all back surfaces and/or connections are primed/stained before painting/staining the in-situ boards.



**CLADDING WEATHER SEALING ESTIMATE:** \$4,000.00 (Replacement of any rotten timber and resealing requirements over 24-36 months on the main house)

**CLADDING WEATHER SEALING ESTIMATE:** \$6,000.00 - \$10,000.00 (Replacement of any rotten timber and resealing requirements over 24-36 months on the main house)

**NOTE:** The number observations we have documented may seem many, I assure you it is not. The overall paint work on this property is very impressive (Main house). We know this era of construction and style of building very well. I own two immaculate bay villas and would happily swap them both for this one. This property showed very small amount of observations overall. However this style of house does demand a

fair amount of ongoing maintenance but a justified amount for it's age and the reward is simply owning an absolutely beautiful home that couldn't be built for what it'll sell for at even todays crazy market prices.

**We recommend** getting exact quotes from the correct specialist contractors. We have provided rough estimates for the work required. These costings range from the DIY lower pricing to the cost to have a professional tradesperson complete the work involved over the next 24-36 months. Not all observations are documented. But are clearly visible from the exterior of the dwelling.





# 16: OBSERVATIONS | JOINERY

		IN	NI	NP	O
16.1	JOINERY OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Observations

16.1.1 JOINERY OBSERVATIONS

### INTERIOR JOINERY REQUIRES

 Trade Work Required

### INTERIOR JOINERY REQUIRES

**One or more of the following may apply:**

- Weather sealing, Hardware issues, Signs of mould in some sills. Some operation of timber joinery needs easing.

For timber joinery and/or surrounding cladding materials, buff/key the surface before applying any weather sealing paint and/or paintable silicone products.





16.1.2 JOINERY OBSERVATIONS

**GLASS PANE NEEDS REPLACING**

 Trade Work Required

**GLASS PANE NEEDS REPLACING**



# 17: OBSERVATIONS | ROOFING

		IN	NI	NP	O
17.1	EXTERIOR ROOFING OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Observations

17.1.1 EXTERIOR ROOFING OBSERVATIONS

### **OBSERVATION | METAL ROOFING**



## OBSERVATION | ROOFING

One or more of the following may apply:

- Lichen, Algae and/or Moss sighted in one or more areas.
- Edges of iron roof lifting.
- Rust sighted in iron roofing.
- Failing/fading weatherproof paint seal.
- Soffits, Fascias and/or Eaves show weathering and/or damage.
- Roof drainage shows debris and/or damage.

## SOLOUTON | ROOFING

The roofing system isn't too bad overall. It does however need attention in specific areas. We recommend having a roofing contractor assess and quote for these areas.

## LICHEN, ALGAE AND/OR MOSS SIGHTED

- Lichen, Algae and/or moss sighted in one or more areas.

Lichen causes damage and is extremely difficult to remove with pressure cleaning or scrubbing alone. The lichen will begin to regrow immediately after pressure cleaning from the residue left behind.

## SOLUTION: LICHEN REMOVAL

The following spray product only applies to areas safely accessible.

- **Bio-Shield** is a very good product for stopping the regrowth of lichen.

The key to successfully cleaning and removing lichen is to apply the Bio-Shield solution to saturate the lichen through to the base of the growths, and ensuring it does not dry out too quickly. Aim to allow drying over 10 to 15 minutes to ensure the Bio-Shield gives a good kill. Application on a cloudy day or early morning will assist. You will notice a slight colour change in most lichens once Bio-Shield is applied as it penetrates and kills the lichen. A surface treated with Bio-Shield will stay clean for up to 3 years. Re-apply the Bio-Shield at the first sign of regrowth for a fast clean up and to keep the treated surface clean.

## BIO-SHIELD



### [BIO-SHIELD LINK](#)

A 5 litre of Bio-Shield costs NZD\$99 and makes 105 litres  
\$99 divided by 105 litres gives a cost of 94 cents per litre.

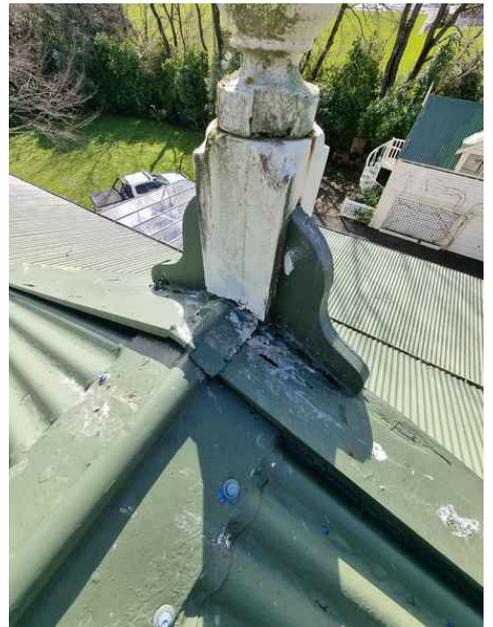
The roofing iron is mostly still original and in pretty impressive shape for its age. We would recommend having it weather sealed in the next 5-10 years. Sooner rather than later is recommended. Full weather

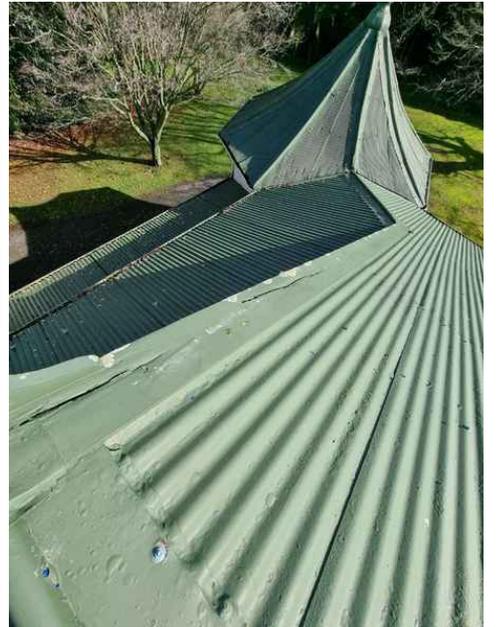
sealing of both roofing systems quoted by:

APEX ROOFS: **021 655 100**

**PROFESSIONAL ROOFING WEATHER SEALING ESTIMATE:** \$20,000.00 - \$28,000.00

We recommend getting exact quotes from the specialist contractor you choose to hire as quotes can be very different from one roofing company to another. We have provided rough estimates for the work required. These costings range from just replacing the deteriorated timber fascia boards to the cost of having a professional tradesperson complete all the work involved.





# 18: OBSERVATIONS | STRUCTURE

		IN	NI	NP	O
18.1	FOUNDATION OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Observations

18.1.1 FOUNDATION OBSERVATIONS

### SETTLEMENT AND/OR SETTLEMENT DEFECTS



## DEFECTS NOTED IN STRUCTURAL AND/OR NON-STRUCTURAL ELEMENTS

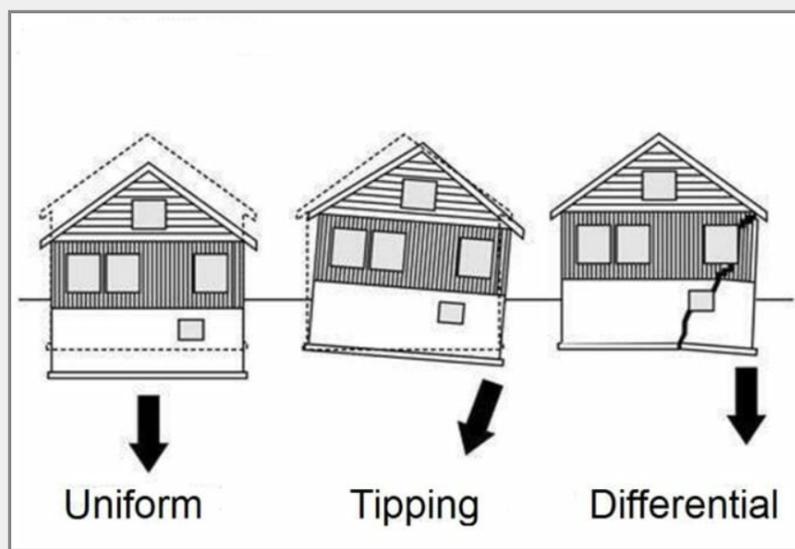
Cracking, settlement and/or defects sighted in one or more of the concrete foundational elements. This is a relatively common observation, however any defects in any foundational elements should be monitored for further deterioration every 6 weeks or so.

These areas require monitoring. (Refer to images provided) If the settlement cracking worsens we recommend you seek the advise of a qualified builder and/or structural engineer that can provide a quote to remedy the observation.

**NOT ALL INFORMATION WITHIN THIS OBSERVATION WILL DIRECTLY APPLY TO THE AREAS IDENTIFIED. BUT AS A HOMEOWNER IT'S INFORMATION YOU SHOULD KNOW.**

**3 TYPES OF SETTLEMENT CRACKING:** When the weight of a home causes the soil particles to consolidate tighter, then the home drops down or settles. There are 3 basic types of settlement and one type usually causes more damage to the home, than the other two types. **Uniform settlement** is when the home settles evenly at all four corners. It sinks down without tilting or where one section settles more than another. **Tipping settlement** is basically where one end or side of the homes foundation stays in place and the opposite side or end drops down but the foundation stays intact. You could say the house tilts and/or leans. **Differential settlement** is basically where one portion of the foundation stays in place and one part of the foundation drops down or shifts. This means that the foundation and home will probably suffer more damage than will occur with uniform or tipping settlement. Engineers often considers this to be the worst type of settlement.

### SETTLEMENT CRACKS & THE 3 TYPES OF SETTLEMENT



#### What Causes Foundation Settlement?

**Drought:** During prolonged dry periods, the soil around your home may begin to dry out. As clay soil dry out, they will shrink considerably. When this happens under a foundation, it's the same as the soil settling. Your foundation will settle downwards as it does so, possibly leading to structural damage.

**Maturing Trees:** A mature tree's root system can be up to twice the size of its visible part. If the trees extend over your home, that's a good sign that they're under your house as well. As they draw up hundreds of gallons of water each day, the soil will shrink significantly.

**Wetting & Softening Of Soil:** Heavy Rain & Flooding: When clay soil contact water, they hold on to it and become very soft. This soft soil is not good load-bearing soil, and heavy objects will sink down into it.

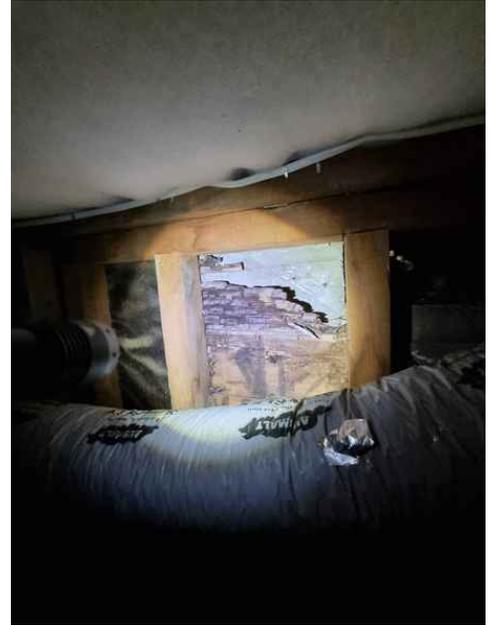
**Poor Drainage:** If water is allowed to "pond" next to the home due to poor soil grading, clogged gutters, or some other factor, the soil will absorb the water. If you have clay soil around the home, then the soil will soften and the home may sink.

**Plumbing Leaks & Broken Water Lines:** Plumbing leaks under or around a home can also saturate the soil around a home, and potentially weaken their load-bearing capacity.

**Poorly Compacted Fill Soil:** To make a level surface where your foundation can be built, builders will sometimes bring in loose soil from another location, using it to fill in hollow or depressed areas. This

recently excavated "fill" soil is fluffed, and will be much looser and lighter than the dense, hard-packed virgin soil already present. To compensate, the builder will need to compact the fill soil thoroughly before placing a foundation on top. If this compaction is not done, or is improperly done, then the weight of your home may cause the soil to compress, leading to foundation settlement issues.

**Poor construction practices:** Subfloor may have in-line bearer joints at one or more rows of piles. This is a common observation for this era of construction, however common it is a poor construction practice. The bearers will need to be reinforced by adding strong backs. (Strong backs are a second full length bearer or similar strength material that spans across the joints and allows any load to be evenly dispersed)



#### 18.1.2 FOUNDATION OBSERVATIONS

### ROTTEN TIMBER



## ROT NOTED

The subfloor timber shows rot in one main "isolated" area. This is somewhat common and expected for a building of this age and type of foundation, however it's not ideal, the cause should be addressed and the repair work done sooner rather than later. The dry rot should be removed where possible and the rot treated in any areas not able to be removed.

## SUB-STANDARD BEARER CONSTRUCTION NOTED

Bearers do not span across two or more piles. This is a common observation for this era of construction after re-piling but however common it is, it is still a poor construction practice. Replace bearer with the same strength material or higher strength material that then spans across the piles and allows any load to be evenly dispersed

## ROT

**Dry rot** is caused when humidity (between 18 - 30%) and poor ventilation combine to provide the perfect habitat for fungal growth. As such, dry rot can attack any type of property from the very old to the newly built if **dry rot spores** are present or if the dwelling has **poor ventilation**.

Any affected timbers should be removed and replaced with pre-treated timber. Any remaining timbers at risk of being affected by the dry rot should be treated with an effective fungicide. Where the dry rot has passed through the masonry, it should be isolated using physical containment and / or masonry sterilization.

## THREE BROAD TYPES OF ROT

**Brown rot:** Brown rot, which can be dry or wet rot, tends to make the timber look darker. It is more common on soft woods and rare in hardwoods. Timber affected by brown rot can easily be penetrated with a knife, and when the timber is dry, the affected area appears dark and has cross-grain cracks. Once started, wet rot can continue to grow at lower moisture levels than other rots and will decay timber rapidly. Dry rot can transport the moisture it needs, allowing it to attack even dry timber. It is extremely destructive, so all timber affected by dry rot must be removed completely.

**White rot:** White rot, which is a wet rot only, gives timber a yellowish-white fibrous appearance. It prefers hardwoods and requires moderate to higher moisture levels to grow.

**Soft rot:** Soft rot may cause timber to darken or appear greyish but cannot always be seen from the outward appearance of the timber. In advanced stages of decay, the timber can easily be penetrated with a sharp knife. Soft rot requires high moisture levels to grow and is more commonly found on timber in contact with the ground.

**Location of rot:** Rot in timber is most likely to be found around brick chimneys, around windows, on weatherboards on the side of the house most exposed to the weather and in framing or weatherboards close to the ground. One problem with stucco houses is where water has drained down the back of the stucco but become trapped around the bottom plate, leading to rot of that member, the bottoms of studs and sometimes even the bearer.

### When dealing with rotted timber:

- check that the source of the moisture has been identified and remedied
- remove all visible rot
- remove at least one meter of timber past the last visible sign of rot damage as the root system of the rot may be present in apparently sound timber – in some cases, it may prove easier to replace the entire piece of affected timber rather than trying to replace and strengthen a portion
- treat cut timber with a proprietary paint-on preservative.



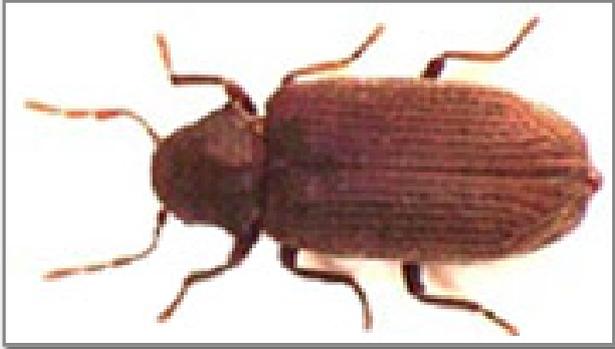
18.1.3 FOUNDATION OBSERVATIONS  
**BORER HOLES SIGHTED**

 Maintenance Item

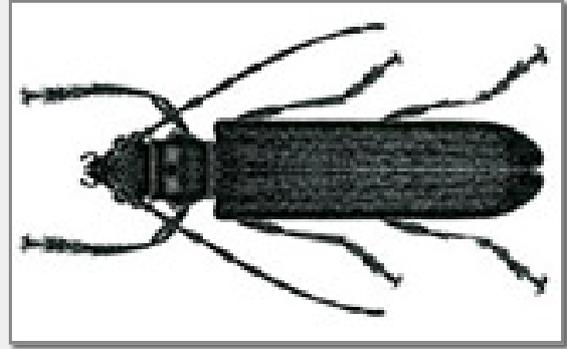
## SIGNS OF BORER NOTED

**Borer attacks untreated and damp timber.** For minor, or early infestation, treat the infested areas. Replace badly affected timber. This can some times be easier said than done.

## RECONISING BORER



**Common House Borer**



**Two-Toothed Longhorn borer**

There are up to 7 species of borer in New Zealand. The most common is the **Common House Borer**. Signs that you may have borer in your home timbers, doors or furniture include small (2-4mm) flight holes on the surface of the timber and piles of fine sawdust. The **Two-Toothed Longhorn borer** is a native to New Zealand and also common. It is a much larger beetle and its flight holes are larger, up to 7mm, and more oval in shape. This type of borer is less likely to be found in buildings.

## SOLUTION: BORER TREATMENT

Borer-infested timber can be treated, but if timbers are severely weakened you should strengthen the timber or ultimately the timber may need to be replaced.

The only long-term treatment for borer is a residual surface application of a product including insecticide or preservative. The treatment must last longer than the lifecycle of borer. This type of treatment can only be used on bare timber, so you may need to strip the timber of paint or varnish before treatment.

Airborne treatments (such as bombs, misting or fogging) will only kill the adults on the wing (November to March) and won't stop the larvae from eating away at the inside of your timber.

If you see evidence of borer in your weatherboards, there is a good chance the borer is more extensive than it seems. This is because borer tends to attack from the inside of the boards. The only long-term solution is to replace the affected weatherboards and treat the framing timber behind while the wall is open.

Any large-scale infestation should be treated by a professional with the right safety equipment.

Professional Borer treatment cost between \$150.00 & \$300.00 The treatment soaks into the timber and borer larvae and pupae are killed as they consume it. The treatment will provide borer stopping power for at least 5 years.



# 19: OBSERVATIONS | UTILITIES

		IN	NI	NP	O
19.1	UTILITIES OBSERVATIONS	X			X
19.2	INSULATION & VENTILATION OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

## Observations

19.1.1 UTILITIES OBSERVATIONS

### UNSATISFACTORY PLUMBING ITEM


Maintenance Item

**UNSATISFACTORY PLUMBING ITEM**

The item/s in this section require repair/replacement.



19.1.2 UTILITIES OBSERVATIONS

### POLYBUTYLENE PIPES | DUX QUEST


Maintenance Item

## POLYBUTYLENE | PEX | PVC | DUXQUEST

Plumbing systems appear to have been upgraded. We only identified disused Dux Quest during the inspection.

**Polybutylene (PB)** was a plastic manufactured between 1978 and mid-1995 for use as piping in home plumbing systems. It was inexpensive and offered plenty of advantages over other materials, such as flexibility, ease of installation, resistance to freezing. Despite its strengths, production was ceased in mid-1996 after scores of allegations surfaced claiming that polybutylene pipes were rupturing and causing property damage.

### How Does Polybutylene Fail?

Certain disinfectants can react with the polybutylene and cause it to flake apart at any location within the PB piping system. Small fractures can deepen over time and eventually work their way to the pipe's exterior, allowing water to escape. Some leaks do however occur at joints and unions, which is where a leak would likely appear if a pipe were improperly installed.

### Identifying Polybutylene

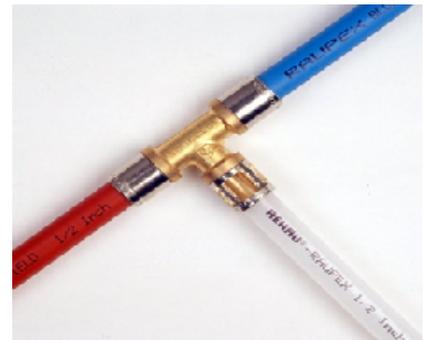
Polybutylene pipes are:

- usually stamped with the code "PB2110";
- ½" to 1" in diameter.
- flexible and sometimes curved, unlike rigid piping materials such as copper;
- not used for waste, drain or vent piping;
- most commonly grey in color, but they can also be white, silver, black or blue. Blue PB is used primarily outdoors and should only be used to carry cold water.
- Be aware that black or white pipes might not be polybutylene (they might be polyethylene or PVC, respectively).



### Other piping materials not to be confused with PB:

- PEX (pictured at right): Common in radiant-heating systems, this cross-linked polyethylene can be black, blue or red. It is more easily coiled and more flexible than PB. It can withstand higher temperatures than polyethylene.
- PVC: A popular building material commonly used in residential plumbing. CPVC is derived from PVC and is also used in plumbing. Both appear white or off-white and can be flexible or rigid.
- Polyethylene DuxQuest is flexible and black.



**If in doubt, a licensed plumber can be contacted to determine**



Plumbing systems appear to have been upgraded. We only identified disused Dux Quest during the inspection.

19.2.1 INSULATION & VENTILATION OBSERVATIONS

**VENTILATION | EXTRACTION REPAIR AND/OR REPLACE**

 Trade Work Required

**VENTILATION | EXTRACTION REPAIR AND/OR REPLACE**

Ventilation ducting appears to not be vented to the exterior of the dwelling

**EXTRACTION UNITS**

NZ Healthy Homes Standards require extractor and exhaust fans to be vented to the outside of the building with an vent cap. If not installed and/or installed incorrectly, the excessive moisture will cause condensation and moisture damage on ceilings and walls. This can cause mould and moisture damage inside the walls and/or ceiling cavity.



## 20: OBSERVATIONS | MOISTURE

		IN	NI	NP	O
20.1	THERMAL & MOISTURE TESTING OBSERVATIONS	X			X

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

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**THERMAL & MOISTURE TESTING OBSERVATIONS: THERMAL IMAGING & MOISTURE METERING****THERMAL IMAGING & MOISTURE METERING**

Thermal imaging does not provide our inspectors with X-ray vision. It is a tool used to indicate areas that require further investigation with other moisture detecting equipment, Thermal Imaging does not detect moisture. Put simply, it is used to identify areas that show "Heat Differentials". Not so simply put: Thermal imaging does not directly measure temperature, it measures radiated thermal energy. Temperature is then derived from the amount of energy detected. For example, moist areas of a wall will show greater temperature loss because water is a better conductor of heat. The thermal camera can also "indicate" what lies behind walls. Often the studs can be seen because the wood, which has a lower R-value than the insulated walls, serves as a "thermal bridge" for heat flow. The images provided below in the gallery sections were taken as part of our process when inspecting each property. Once we have assessed all the information collected, any observations can be found in the observations sections and/or summary sections.

**MOISTURE TESTING**

CPRNZ does not relay a single piece of testing equipment. All walls are checked with both thermal imaging and moisture meters completely independent of each other by way of CPRNZ using two different inspectors at every property if one tool indicates areas that require further investigation with different type of moisture detecting equipment, our inspectors will flag the area, thus notifying the other inspector to double check the area directly and also to check the opposite side of the observation. Every effort is made to provide you with the most comprehensive property report possible, especially so when it comes to moisture ingress.

**LIMITATIONS**

- **Please note** that dry weather can affect a moisture inspection as less moisture will remain in the structure. A wet season or after rain will produce a more accurate result. A non-invasive inspection has the limitation of only being able to read into any timber framed wall to the depth of **5-40 mm** depending on the density of the material being tested, construction and the type of meter used (**FLIR MR60 | PINLESS MODE up to 19mm; FLIR MR176 | PIN PROBE MODE up to 40mm\*** as per Specifications) This does mean that if there is some dampness on the outside of the wall framing and it has not leaked into the wall far enough towards the above dimension then it may not be discovered.
- The **FLIR MR277** Thermal Imaging Camera has far greater moisture indication capabilities, providing there are optimum weather and temperature conditions on the day of inspection.
- The non-invasive moisture meters will not detect or measure moisture through any electrically conductive materials including but not limited by metal sheeting or cladding, black EPDM roofing, butyl roofing, some rubberised waterproofing, aluminum siding or wet surfaces, aluminium foil.
- Decayed timber (dry) is not detected by non-invasive moisture meter, visual inspection with timber strength testing, collecting "shavings" and further investigation is recommended.
- In some cases a vendor may disguise a problem by drying affected areas prior the inspection, installing new lining, painting surfaces over or placing the furniture in front of problematic areas.
- As our inspection is non-invasive and is of a visual nature, we can not move the vendor's furniture or belongings there are some limitations in inspections and we can't be held liable for concealed or disguised problems. Obtaining a vendor statement about the house's moisture condition and a final re-inspection before settlement when the house is empty is highly recommended. Immediate notification about any problems to your solicitor and inspector is strongly advised.

(Full list of limitations at the end of the report)

## THERMAL & MOISTURE TESTING OBSERVATIONS: THERMAL % GLOSSARY

### HOW TO READ OUR OBSERVATION RATINGS

#### THERMAL % GLOSSARY

THE MOISTURE % READINGS GUIDE IS EXACTLY THAT. IT IS A GUIDE ONLY. DIFFERENT MATERIALS CAN GIVE A DIFFERENT % READING FOR NUMEROUS REASONS. WE WILL ADVISE YOU IF THE TREATED AREAS ARE MOIST, DAMP AND/OR WET. A BASE % OR TARE % WILL BE SET FOR EACH DIFFERENT MATERIAL TESTED.

#### 0-17%

Low level moisture readings within the NZ Standards were detected at the time of inspection. This is not uncommon in dwellings of this age and construction era. If multiple low moisture levels are found in a close proximity to each other, it can be an early warning that the area has a developing issue.

#### 17-30%

**MOISTURE DETECTED (HIGH LEVELS) 17.0 - 30.0** Moderate to High level moisture readings were found in one or more areas at the time of inspection. Readings at this level are often an early warning sign that warrants further investigation to find the cause and prevent more damaging effects. The external cladding, joinery, flashing and/or general weather seal in this area may need attention.

#### 30-100%

**MOISTURE DETECTED (VERY HIGH LEVELS) 30.0 - 100.0** Very high level moisture readings were found in one or more areas at the time of inspection. Readings at this level are a definitive sign that strongly warrants further investigation to find the cause and possibly prevent any more damaging effect. We may recommend having an invasive inspection done sooner rather than later. By either CPRNZ or another independent inspector. There could be a sizable cost involved to complete the work needed to correct this issue.

## Observations

### 20.1.1 THERMAL & MOISTURE TESTING OBSERVATIONS



Maintenance Item

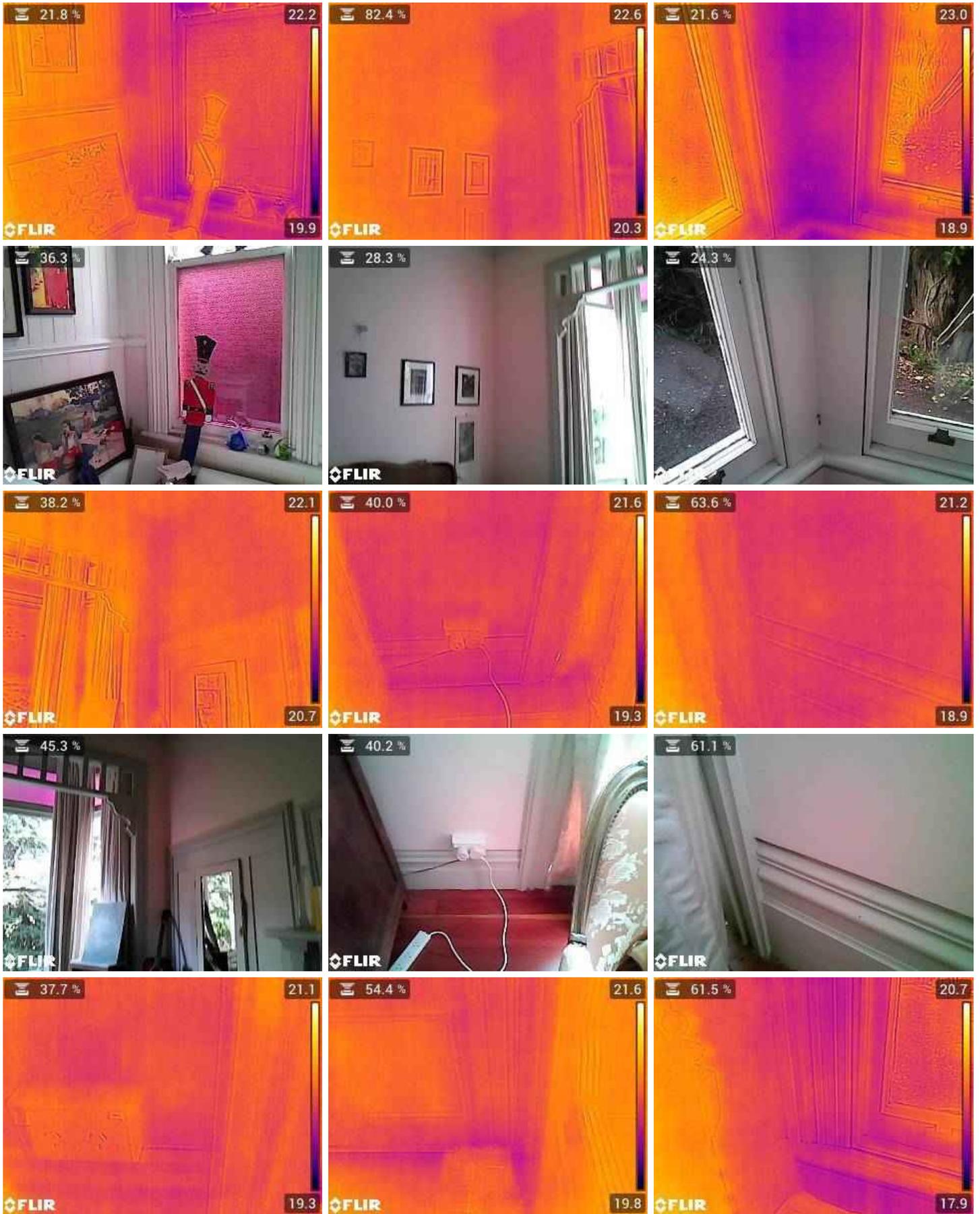
#### HIGH RISK AREAS

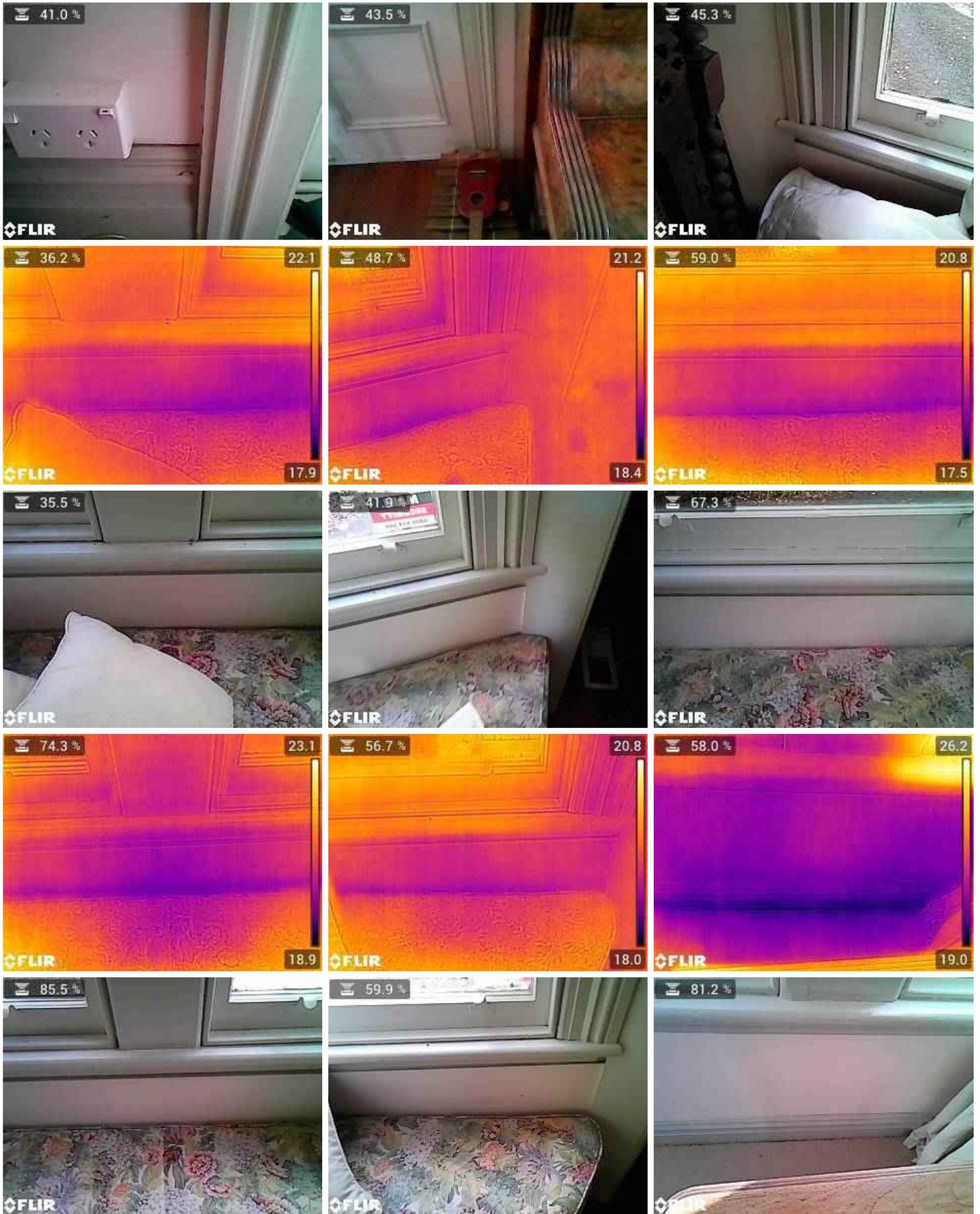
#### HIGH RISK AREAS

The images in this section are not necessarily indicating moisture they *may* be one of the following:

- Moderate to high risk areas that could potentially have moisture ingress issues now and/or in the future.
- These areas may have shown visible signs of moisture damage. (Historic and/or current)
- These areas were inspected for moisture but did not show over concerningly high moisture levels at the time of inspection.

**We recommend** monitoring these areas and keeping the exterior of these sections well seal from the weather.



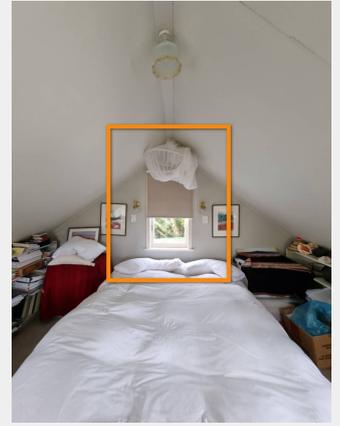


20.1.2 THERMAL & MOISTURE TESTING OBSERVATIONS  
**ROOM OBSERVATION & DOCUMENTATION**

 Trade Work Required

# ROOM OBSERVATION & DOCUMENTATION

## AREA INSPECTED CEILINGS | WALL LININGS | JOINERY



<b>MOISTURE LEVELS:</b>	<b>EXTERIOR:</b> R52.0%   M48.2%
<b>MODERATE INDICATORS:</b>	<b>INTERIOR:</b> R16.0%   M84.2%
<b>RECOMMENDATION:</b>	<p><b>EXTERIOR:</b> Moisture Damaged Timber.</p> <p><b>INTERIOR:</b> Moisture Damaged Gib.</p> <p><b>EXTERIOR:</b> Replace, Repair, Weather seal.</p> <p><b>INTERIOR:</b> Replace Gib Linings.</p>



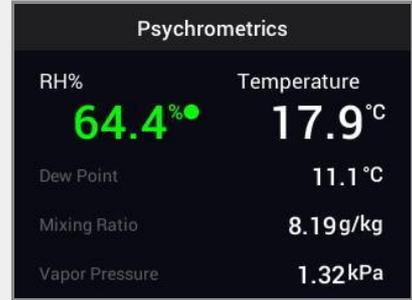
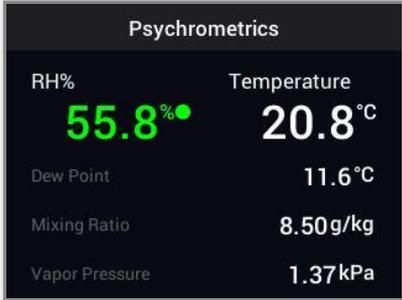
20.1.3 THERMAL & MOISTURE TESTING OBSERVATIONS  
**FLIR MR277 MOISTURE METER DOCUMENTATION**

 Trade Work Required

# FLIR MR277 MOISTURE METER DOCUMENTATION

## INTERIOR

## EXTERIOR



## UPSTAIRS BASELINE AVERAGE

## DOWNSTAIRS BASELINE AVERAGE

16.0%

19.0%

## HIGHEST AREA READING

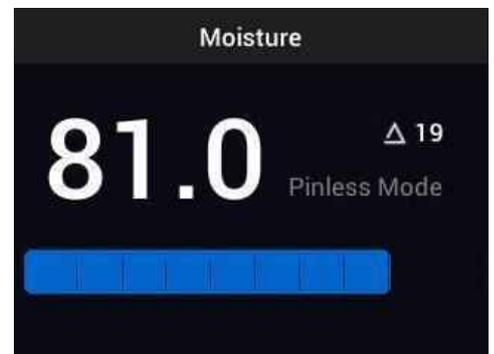
## HIGHEST AREA READING

84.2%

81.0%



UPSTAIRS



DOWNSTAIRS



UPSTARIS



DOWNSTAIRS

21: 3/3

## Information

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### SECTION 3/3 INFORMATION

# SECTION 3/3 INFORMATION

**END OF REPORT  
DOCUMENTATION & OBSERVATIONS**

**THE FOLLOWING CONTAINS GENERAL INFORMATION  
& MAINTENANCE TIPS**

**IF YOU ARE PRINTING A PDF COPY OF THIS REPORT YOU MAY WITH TO ONLY SELECT THE DOCUMENTATION ABOVE THIS SECTION.**

## 22: THERMAL GALLERY ONLY

		IN	NI	NP	O
22.1	THERMAL & MOISTURE TESTING RESULTS	X			

IN = Inspected    NI = Not Inspected    NP = Not Present    O = Observations

### Information

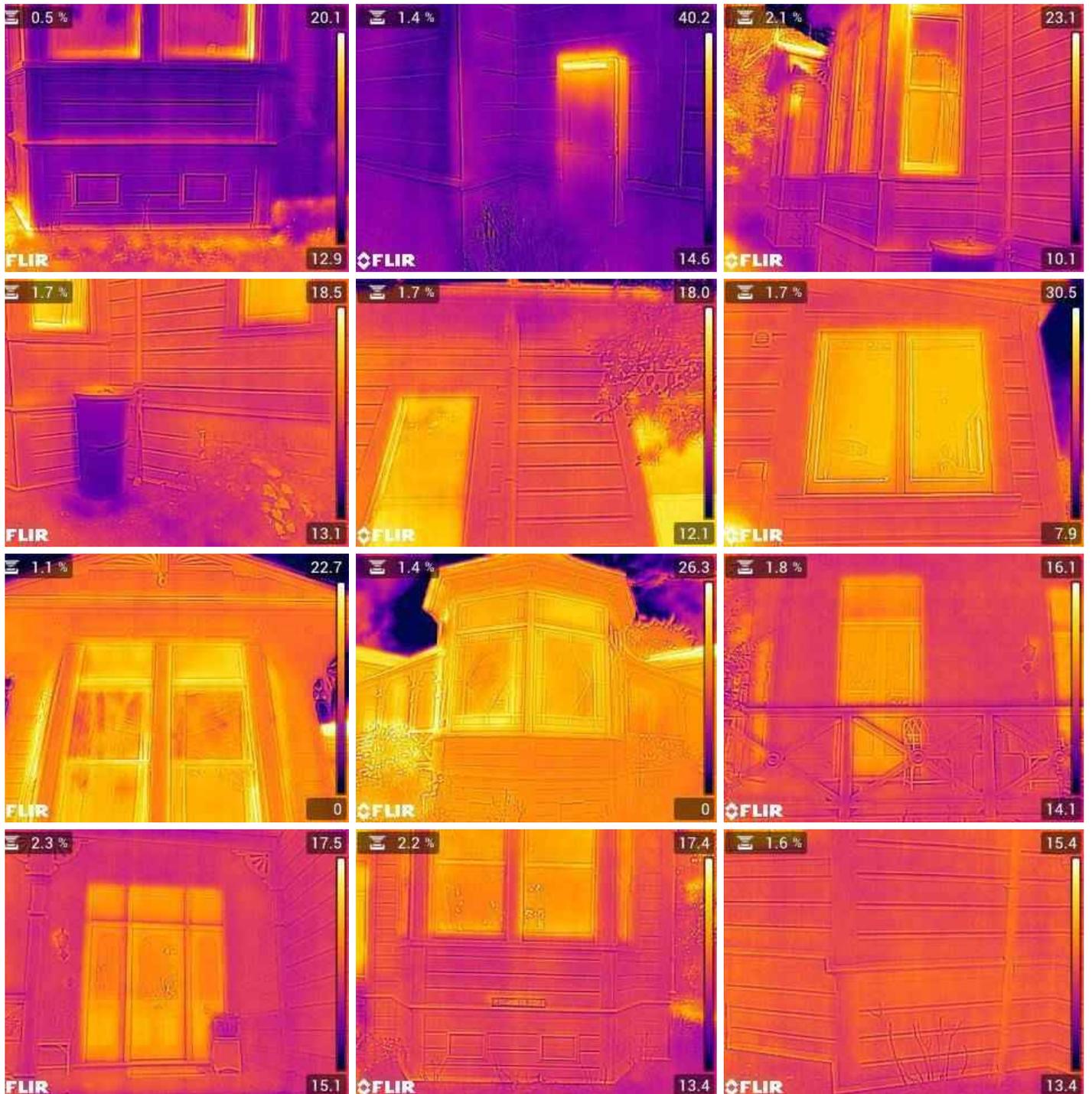
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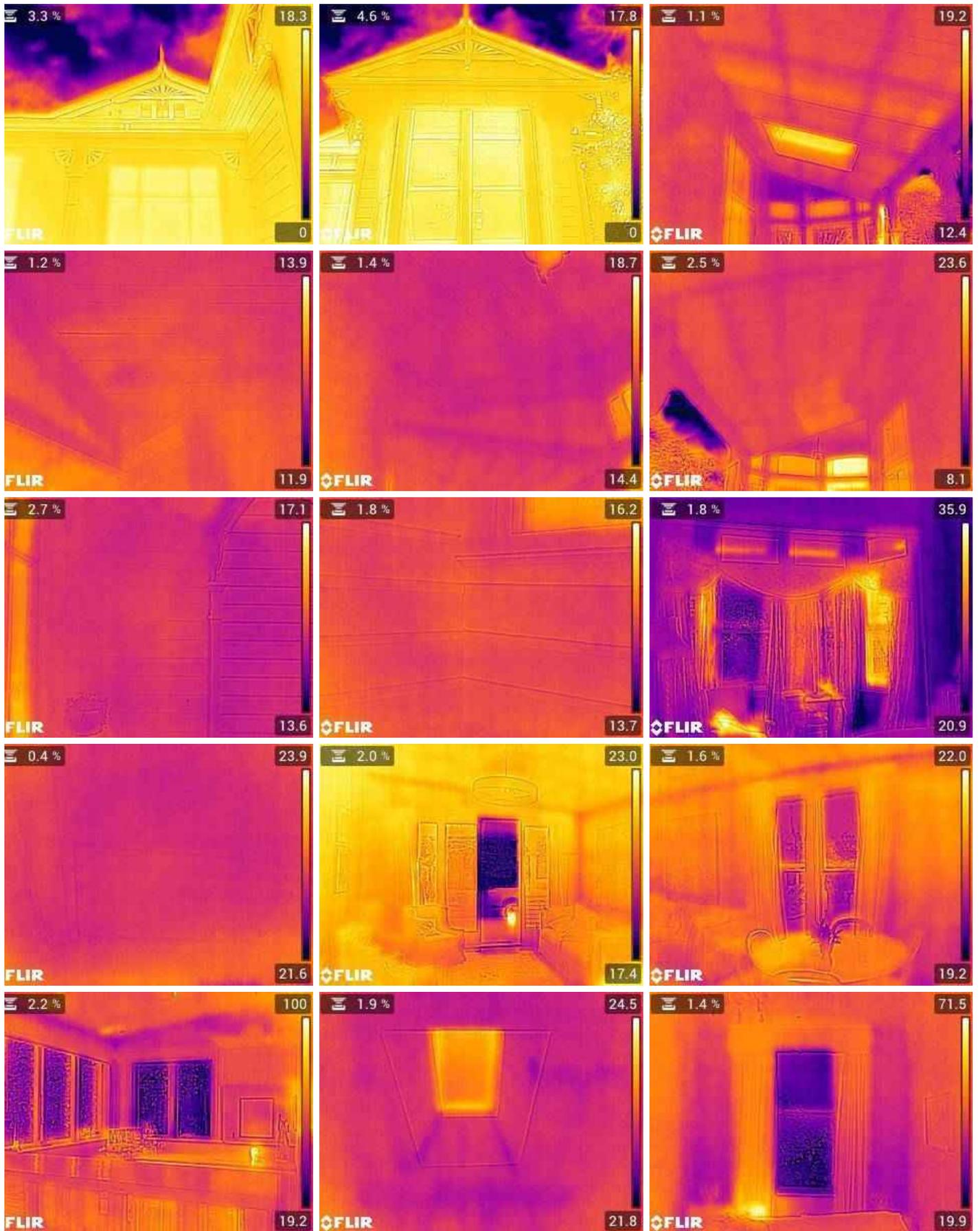
**THERMAL & MOISTURE TESTING RESULTS: GALLERY**

**THERMAL IMAGING GALLERY ONLY**

**THESE IMAGES MAY SHOW AREAS INSPECTED FOR MOISTURE, MOISTURE INGRESS AND/OR DAMAGE.**

*\*This does not mean there was no moisture in any of the areas documented. There may be areas deemed inaccessible and/or areas that where it was not possible to view by eye and/or the thermal imaging camera was not able to detect thermal differences due to relative humidity at the time. This is a gallery only and therefore may contain images that we used to locate moisture.*







# 23: INFORMATION | MAINTENANCE

## Information

### GENERAL INFORMATION

#### MOISTURE DETECTION INFORMATION

With limited time at each inspection, there could be areas of moisture not detected at the time of inspection. Any moisture readings and/or absence of elevated moisture levels, found at the time of inspection only apply to the date and time they were inspected. The opposite side of any moisture detection is also checked to identify possible causes and/or damage. Areas indicated to show moisture/thermal differences are usually first found with the FLIR Thermal Imaging Camera and where possible they are double checked and confirmed with a FLIR Pin Probe and/or FLIR Moisture Meter. The photos provided are to show the areas of concern, and not the definitive example of moisture. It is not possible to fully document our inspection process as it would take time and distract from the inspection system itself.

**Thermal imaging:** Thermal imaging does not show "moisture" As the name states, it identifies different temperatures. Thermal imaging is used to locate areas of concern that we can then investigate further. It is also used to track moisture through thermal patterns to its point of origin.

#### GENERAL INFORMATION

There could be areas with excessive wear and tear not visible at the time of inspection. Some individual items featured in an observation, may only be noted with a photo. This is because we deem the photo in itself explanation enough. If you decide to have the work quoted by the appropriate trades person/s. We have provided a list of contractors that we consider to be reliable, honest trades people. However we can not be held responsible for any quotes and/or work carried out by these trades people. You will find a list of generic and custom limitations that may have restricted or otherwise inhibited the inspection, located at the end of this report.

**NOTE:** Any and all observations noted within this report apply to the time and date the of inspection only.

### 24/7

#### 24 HOUR AFTER REPORT ASSISTANCE



**0800 677 388**  
**027 548 5573**

**CPRNZ@OUTLOOK.COM**

**WWW.CPRNZ.COM**

**RECOMMENDED CONTRACTORS LIST****RETAINING, FOUNDATION & BUILDING CONTRACTORS:**

[CLARK CONSTRUCTION](#) Phone: 0800 425 275

**BUILDING CONTRACTORS:**

[WELLINGTON BUILDING SERVICES](#) Phone: 04 472 4443

**CLADDING & MONOLITHIC CLADDING CONTRACTORS:**

[TEXTURITE CLADDING](#) Phone: 027 341 3454 Phone: 027 444 5720

**ROOFING CONTRACTORS:**

[ELEMENT ROOFING](#) Phone: 022 652 2022 Freephone: 0508 7663 7663

**JOINERY CONTRACTORS:**

[WESTVIEW ALUMINIUM JOINERY](#) Phone: 04 526 4400

[THERMALFRAME WINDOWS AND DOORS](#) Phone: (04) 589 3030 Freephone: 0800 50 51 51

**ASBESTOS REMOVAL CONTRACTOR:**

[HAZMAT ASBESTOS REMOVAL](#) Phone: 0508 429 628

**PEST CONTROL SERVICES:**

[PEST CONTROL SERVICES WELLINGTON](#) Phone: 0800 997 378

**GROUND MOISTURE BARRIERS**

[MOISTURE BARRIERS WELLINGTON](#) Phone: 021657387

**MOISTURE IN THE HOME****MOISTURE IN THE HOME**

Every winter we hear and see stories of people living in extremely damp, mouldy conditions.

It's a symptom of living in older wooden houses in a temperate climate with inadequate heating, ventilation and insulation. However, it isn't just extreme cases that need to be fixed — most of us would be more comfortable if we reduced the dampness in our homes.

A damp home is an unhealthy home, there's no argument there. But it isn't just that — damp air takes more energy to heat than dry air, so it literally pays to remove moisture from your home.

Musty smells, mouldy walls and ceilings, weeping windows and damp clothes in wardrobes are all signs you need to reduce moisture and increase ventilation or heating.

Start by reducing dampness sources. Moisture gets into your home in many ways. One of the biggest sources is moisture evaporating up from the ground through your floors (as much as 40L per day per 100m<sup>2</sup>). Check for dampness under your house and fix any drainage, guttering, downpipe or plumbing problems — then consider installing a sealed moisture control sheet.

**Other daily activities can add moisture to your home:**

- Use pot lids when cooking to contain steam and a kitchen rangehood or fan that vents outside.
- Drying clothes inside can add 5L of moisture per load. Make use of good winter days to dry clothes outside. Using the fastest spin speed on your washing machine minimises the amount of drying needed. If you use a vented clothes dryer, ensure it vents outside.
- Cooking can add up to 3L a day. Use pot lids when cooking to contain steam and a kitchen rangehood or fan that vents outside.
- Showers and baths add up to 1.5L per day per person. Use an extractor fan when showering or taking a bath, or at least open a window. You can also fit a dome to your shower to contain moisture.
- Don't use unflued gas heaters to heat your home. Not only are they dangerous unless well vented, they add up to 1L of moisture to the air per hour.

**Sources of moisture**

Cooking	3.0/day
Clothes washing	0.5/day
Showers and baths	1.5/day (per person)
Dishes	1.0/day
Clothes drying (unvented)	5.0/load
Gas heater (unflued)	Up to 1.0/hr
Breathing, Active	0.2/hr per person
Breathing, Asleep	0.02/hr per person

Perspiration

0.03/hr per person

Pot plants

As much as you give them

Once the main sources of dampness are removed or reduced, you can think ventilation. Just living and breathing adds moisture into the home, and we can't stop doing that. However, we can open windows to let a breeze through and vent moisture-laden air. It seems counter-intuitive to open windows on a cold winter day, but removing moisture will be healthier and make your heating more efficient. Get in the habit of airing your home every day or leaving windows slightly open. Many of these tips are free or low-cost, but they can be highly effective. Further options start to get pricier. You could consider a dehumidifier to target parts of the home that don't get enough airflow and remain damp. However, they aren't a magic bullet — the best dehumidifiers in our tests remove up to 9L per day at 12°C, but only desiccant models perform when it's colder. They are effective at drying smaller spaces, and act as a small heater too (they put out about 300 to 400W of heat).

## MOULD

Mould is known to cause inflammation, allergies and infections. It is a relatively straightforward process to remove mould from hard non-porous surfaces, such as glass or ceramic tile. However, removing mould from porous substances such as wallboard, wood and carpets is more difficult and more hazardous. This is because spores can be released when disturbing rotten material, which can cause inflammation, allergies and infections.

## NEW HOMES

In new buildings, some moisture is trapped during the construction process. Wet timber may also have been used. The sequencing and timing of the construction process is important to avoid this and be sure to avoid storing construction materials out in the open where possible.

## Under the floor

To prevent damp air from building up under the floor:

- Ensure there is sufficient ventilation. Vents are often obstructed by vegetation and should be cleared.
- Make sure water isn't draining from paths or gardens under the house. You may need to create channels or underground drains to divert surface run-off.
- Cover the ground area beneath your home with heavy-grade polythene, taped at the joints and trimmed neatly against the foundation walls.

## Ventilating

Let moist air out and dry air in by:

- Opening your windows – especially in wet areas such as bathrooms and kitchens. Even in winter, it's worth opening windows to let the house dry out.
- Closing doors to contain steam/condensation in wet areas.
- Using extractor fans in bathrooms and kitchens (but never vent them into the roof space above the ceiling or under the floor. Always vent them outside).
- Venting clothes dryers to the outside. A typical load contains 5 litres of water. This is released as water vapor, which can end up creating thousands of litres of damp air.
- Installing vents into windows.
- Using a forced ventilation system. That said, forced ventilation systems can be expensive to install. Try to address the cause of the moisture build-up instead.

## Insulating

- Block off draughts. Use draught seal tape around windows and doors. Block off unused chimneys, but ensure it's not an airtight seal as air needs to circulate into the chimney to allow drying if rain gets in.
- Insulate your ceiling. This helps keep your home warm and reduces condensation; 42% of heat loss is through the ceiling/roof. Older homes often don't have any ceiling or wall insulation.
- Consider installing double or secondary glazing.
- Check existing insulation is in good condition. As a guide, insulation should fill up to the top of the roof/ceiling joists.
- Insulate beneath the floor. The floor accounts for 10% of heat loss. You will need reasonable access under the floor and, in windy sites, the insulation will need to be protected by a separate layer of lining material, for example plywood or fibre cement.
- Well-fitted heavy curtains, drawn on winter nights, will help retain heat gained from the sun during the day.

## Heating

- If the indoor temperature is at least 7°C warmer than the outdoor temperature, it'll prevent condensation forming on colder surfaces. The World Health Organization recommends an indoor temperature of at least 16°C in bedrooms and 18°C in living areas.
- Use low levels of heat all the time rather than high levels in short bursts. This reduces condensation.
- Don't use unflued gas or kerosene heaters inside – they release up to 1L of water per hour.
- In damp cupboards, consider installing a cupboard heater.

**TIMBER WEATHERBOARDS | MAINTENANCE****WEATHERBOARD MAINTENANCE****CLEANING**

Almost all materials and finishes on the exterior walls will last longer if they are cleaned from time to time. Cleaning removes dust, dirt, mould, mosses, chemical residues and salt spray, all of which can hasten deterioration.

- Wash down the exterior of the building yearly.
- Increase cleaning frequency to 3-monthly in geothermal or severe marine areas.
- Where unpainted steel cladding is used, wash down areas not rain-washed at 6-monthly intervals.
- Clean glass every 3–4 months, more frequently in severe marine areas.
- Carry out cleaning with a low-pressure hose, a soft brush and a gentle detergent. Water-blasting might sound like a good idea, but it can lead to long-term damage if it forces water through gaps into the wall assembly.

**PAINTING**

External paint coatings don't last forever, and recoating must be carried out routinely to maintain decorative and weather-resistant properties. How long external paint will last depends on the:

- quality of surface preparation and condition of the old paint. Paint will last better when the old paint is still in a reasonably sound condition and the surface is well prepared for the new paint
  - quality of the paint used. Typically, you get what you pay for – extremely cheap paints are likely to deteriorate faster than better quality (more expensive) paints
  - amount of sun shining on it – paint on the south side of a building gets less UV light exposure and will last longer than paint on the north or west side
  - colour – lighter colours tend to last longer than darker because they absorb less heat, so expand and contract less
  - size and type of material under the paint. Paint on wide timber boards won't last as long as on narrow boards because the overall movement in wide boards is greater. Paint properly applied to cement-based materials (concrete, cement plaster, fibre-cement products) tends to last longer than paint on timber
  - cleanliness of the painted surface – wash down often to remove airborne chemicals and dirt from the surface
  - number of coats applied
  - underlying colour – applying a dark colour directly over a light one can cause a previously sound paint to lose adhesion because of the higher surface temperature.
  - Paint on weatherboard or fibro can last up to 15 years. Gloss or semi-gloss timber window trim needs repainting every few years. However, Painted weather seal on timber should still to be refinished every 2 to 5 years.
- "Paint before it looks like it's due to be painted"**

**TIMBER JOINERY MAINTENANCE****Timber Doors and Windows**

**Doors and windows need regular cleaning and maintenance to keep them weatherproof and in good working order.**

**Cracked or damaged putty:** This can cause draughts, leaks and rattling windows. Dig out the old putty, and clean and re-prime the rebates before installing new putty. Leave the putty for 2 weeks before painting. Ensure the paint covers 2mm of glass to create a seal.

**Rotting timber:** This is caused by moisture getting into the timber or because the timber is old. Find out what is causing the water to get into the timber. It could be due to a lack of priming of the joints, putty not being sealed to the glass with paint, or severe condensation. The window may need to be removed and dismantled to remedy this problem. Contact a window specialist.

**Double hung sash windows sticking:** Stiff sashes are inconvenient and make it harder to ventilate your home. You may need to replace the cords or counterweights. If you don't know how, contact a window specialist. Sash windows can also stick because of paint or varnish build-up or moisture getting into the wood. If paint or varnish buildup is the cause, strip back to bare wood before repainting/staining. If necessary, plane the wood back before painting or varnishing. If the sticking is seasonal (during warm, wet weather but not in dry weather) the wood is absorbing moisture causing it to expand. Remove the fixture during dry weather. Find the place where water is getting in and re-paint/varnish it.

**Loose catches and handles:** If the catches and handles are coming loose, it will prevent the window from sealing properly. Tighten or remove and reseal if possible.

**Damaged door sills:** These could be a trip hazard. Cut out the damaged section and replace it.

**Windows painted shut:** To break the paint seal, insert the end of a screw driver or chisel into the gap between the window and frame and tap it sharply with a hammer, then slide the screw driver or chisel into the gap between window and frame to trim any paint lumps.

**Doors stick because of:**

- Moisture absorption.
- Handles/locks needing adjustment or replacement.
- Paint build-up.
- Dry or corroded hinges.
- Movement of the door frame due to settlement of the house.

Allow the door to dry. If it still sticks, plane the side it is sticking on and re-hang. Check the hinges for corrosion and replace if necessary. If the hinge screws are loose, the door will stick on the handle side. Tighten or replace the hinge screws. You may need to replace them with longer screws or plug the old holes with dowel. Check hinge pins and replace if missing or worn. Lubricate with a penetrating oil or graphite powder.

**INSPECTOR INFORMATION: T MACKAY****INSPECTOR:****TRAVIS MACKAY****COMPANY:****COMPREHENSIVE PROPERTY REPORTS LTD****QUALIFICATIONS AND BACKGROUND:**

**Trade Qualified Inspector NZS 4306:2005:** 7000+ Published Reports.

Expert Mediation/Trial Witness Testimonials (Multiple Specialized Skill sets).

**Engineering Qualifications and Structural work history:** Professional Engineer: (4-year Bachelor of Engineering) - (Honours) Qualified Level 6 Aeronautical Engineer. NZ Chartered Member Structural Engineering. Structural Engineer: CMEngNZ 1016320. Qualified Fitter Welder (All tickets held, all positions) - (NDT Inspector level).

MS Structural Reinforcement, Design, Fabrication and Fit-out of EQC buildings (Residential and Commercial). EQC Assessment Expert.

**General Construction and Conventional Cladding work history:** 25+ years in the residential and commercial engineering and building sectors. Registered Builder BP-103979. Property investing, Building new spec homes, Renovating 100+ year old villas and bungalows, Maintenance scheduling and maintenance work on all construction eras and systems.

**Monolithic Construction and Leaky Homes work history:** Original cladding systems install, Repair work of moisture damaged homes, Full recladding of homes on the now abolished Leaky Homes Register. Qualified L3 Thermographer. (Designer of this ANZ Accepted Inspection Report Template and Inspection System)

**Other Related Qualifications:** Autodesk Certification in Draft and Design AutoCAD. 6x Current International Tool Patents in the Structural Fabrication Fields and 1x Current International Design Patent in the Automotive Industry.

I hereby certify that I have carried out the inspection of the property site at the above address in accordance with NZS 4306:2005 residential property inspection and I am competent to undertake this inspection. An inspection carried out in accordance with NZS 4306:2005 is not a statement that a property complies with requirements of any Act regulation or bylaw, nor is the report a warranty against any problems developing after the date of the inspection. This report represents the general condition of the home listed above. As with all homes it is important to remember that maintenance and improvements to a house will be required from time to time. The improvements recommended in this report are not considered unusual for a home of this age or type. NZS 3602 Timber and wood-based products for use in buildings NZS 3640 Chemical preservation of round and sawn timber NZS 3604 Timber-framed buildings

## LIMITATIONS

### LIMITATIONS

Limitations listed may or may not directly apply to the specific inspection. This list is to show some of the possible limitations faced during the inspection.

Area/s Not accessible. During the time of the inspection the inspector will check that insulation has been installed in accessible visual areas only. Septic system not inspected Tub / sink overflows not tested. Service size cannot be determined. The inspector is not required to and does not physically walk on roof surfaces in excess of a 3.6 metres, roofs inaccessible by an 3.6 metre ladder, covered by moisture, moss, debris or frost, or of any type not intended to be walked on (e.g. slate, clay tile, concrete tile, aluminum, wood shingles, wood shakes, etc). The inspector is not required to determine or report the age or life expectancy of any roof coverings. Roofs that cannot be accessed directly by the inspector may have defects which are not visible from the ground or the roof's edge. This report neither addresses future leaks nor does it certify that the roof is leak-free. The roof space was not inspected due to limited or no access visible at the time of inspection. Chimney flues not inspected. Insulation can not be seen in the wall cavity areas, unless looked at invasively. Service size could not be determined. Service wires could not be sized and fuse ratings (if applicable) could not be read. Structural inspection limited to visible and accessible areas of the foundation only, as per inspection package or client request. Buried tanks are not included in the inspection. Environmental Consultants can assist if this is a concern. Chimney inspection limited by inaccessibility of roof. Foundation inspection limited to visible and accessible areas only. NO ACCESS TO UNDER FLOOR. Security systems, including smoke detectors, may have been sighted but not tested. Storage in attic. Visual inspection not possible, or incomplete. The main disconnect cover was not removed. Car in garage. Visual inspection not possible, or incomplete. Continuity of air / vapour barrier not verified. Old sewer lines are prone to blockage. Roof inspected by ladder at the edge of the roof and/or by drone. The crawlspace was inspected by entering the area. The power was turned off throughout the house. Weather Distortion. Access Blocked. Due to typical construction constraints, evaluation of plumbing components is limited to readily accessible, visible areas. Furniture and/or other objects restricted access. No access to garage. Visual inspection not possible, or incomplete. Obstructed. The foundation is a slab-on-grade configuration. It is not possible to inspect under this type of foundation during a normal home inspection. The fuse block(s) were not pulled. The roofing inspection was limited by being too fragile to walk on. Typically, roofs covered in anything other than asphalt shingles should not be walked on as the covering is easily damaged. Box cannot be opened without shutting off the power or breaking the lock. Exterior wall(s) inaccessible. Visual inspection not possible. Inspection of chimneys, flues and vents is limited to readily accessible and visible external conditions only. Generally, flues, liners and footings are not visible for inspection. Limited access to sub floor, insulation may not have been sighted. Recreational facilities, such as spas, saunas, steam baths, pools, tennis courts, or exercise/entertainment equipment, is not inspected. The knee-wall space was not inspected due to limited or no access visible at the time of inspection. Unable to sight Drainage pipe work. Concrete tiles become porous over time and would need resealing to exterior or replacement. Gas shut off. Limited or no access to ceiling space - insulation may not have been sighted. No comments/recommendations made with respect to cosmetic finishes. Safety controls, whether automatic or manual, are not tested because these controls are rarely used by the homeowner (other than in an emergency) and activating these safety controls could damage the controls or equipment. These controls should be tested during annual servicing. Storage against exterior wall(s). Visual inspection not possible. There may be defects hidden behind the finished walls or insulation which are not visible at the time of inspection. The service box was locked by the utility. Finishes, insulation and/or storage, at the time of the inspection, conceal structural components which may, or may not, have defects. Flashing inspection limited by inaccessibility of roof. Heat loss calculation are not done as part of the home inspection. These calculations are usually done prior to construction in order to determine the required capacity of the heating system. There are specialists available if this is a concern. Main valve not located. Plants and/or Garden growth restricted access. Safety hazard to inspector. The system ground was not visible or was inaccessible. Vegetation (vines, shrubs, trees, etc) against the build restricted visual inspection. Complete heat exchanger is not visible or inaccessible. At most, only 10% of the heat exchanger is visible through visual inspection. There may be problems with the heat exchanger that are not apparent with this inspection. Main shut off valve not tested., New finishes, paint and/or trim hide historical clues to condition of house. No access to wall space. The roofing inspection was limited by slope (more than 3.6 metres). The service panel / main disconnect was not accessible. Access to the power service panel / main disconnect was restricted. Isolating / relief valves not tested. Restricted or no access under decks. Storage in some areas limited inspection. The roofing inspection was limited by restricted or no access. Absence of historical clues due to new paint/finishes. Ceiling Space sighted from manhole, very limited access. Concealed plumbing not inspected. Restricted or no access under steps. The attic was inspected by entering the area. The roofing inspection was limited by height. Not easily accessible. Electrical tests could not be performed and equipment / appliances requiring electricity could not be operated. Elevators not inspected. Limited pool inspection. The objective of our limited visual pool inspection is to determine if the pool and related equipment may benefit from a more thorough inspection by a qualified pool specialist. The scope of our inspection includes a limited visual inspection of the pool electrical system, primary circulation system, pool barrier system, the pool interior surface and surrounding deck. We do not dismantle components such as filters, pumps and heaters. We do not test water chemistry. We do not test or operate pool heaters, cleaning systems, control valves, chemical injectors or similar components. Radiator / Zone Values Not Tested. The roofing inspection was limited by trees. Water treatment equipment not tested or inspected. Concealed electrical components are not inspected. Fascia and soffits not fully accessible or visible. Inspection limited to visible, accessible areas only. Quality of chimney draw cannot be determined. The roofing inspection was limited by another building. Exterior inspection from ground level and/or by drone. Lead may be present in paint if the house was built prior to 1978. Testing for the presence of lead paint is not part of this inspection. Environmental Consultants can assist if this is a concern. Neither the condition nor flow can be evaluated through underground or covered water or sewer/waste lines. The power was turned off in some areas of the house. Electrical tests could not be performed and equipment / appliances requiring electricity could not be operated. The roofing inspection was limited due to installed solar panels. Asbestos may be present in many building products and materials. Environmental Consultants can assist if this is a concern. The roofing inspection was

limited by slippery, wet conditions. The system has been shut off or is otherwise inoperative. As turning the system on could result in an unsafe situation, the appliance(s) will not be able to be tested. Asbestos may be present in many building products and materials. Environmental Consultants can assist if this is a concern. Moisture problems may result in visible or concealed mould growth. Environmental Consultants can assist if this is a concern. Lead may be present in exterior paint if the house was built prior to 1992, or in the soil. Testing for the presence of lead is not part of this inspection. Environmental Consultants can assist if this is a concern. Step flashing installation and material restricted by the use of sealant. Assessment of flashings is limited to readily accessible and visible sections only. Most roof leaks will occur at the flashings. Poor weather may have limited the inspection process. Roofing/material type comments are intended to provide a general description of materials used. Actual materials were not verified

**The inspector shall perform:**

a non-invasive visual examination of the readily accessible, visible, and installed systems and components of the building (listed in Section 4.0 [Standards of Practice](#)) moisture, temperature and humidity measurements ([refer to Section 4.8 Moisture, Humidity, and Temperature](#)) mold samples according to the IAC2 Mold Sampling Procedures ([refer to Section 5.0 IAC2 Mold Sampling Procedures](#))

**The inspector shall report:**

moisture intrusion, water damage, musty odors, apparent mold growth, or conditions conducive to mold growth; results of a laboratory analysis of all mold samplings taken at the building; and any system or component listed in Section 4.0 [Standards of Practice](#) that were not inspected and the reason(s) they were not inspected.

**Interior**

The inspector shall inspect: A. a representative number of doors and windows by opening and closing them; B. floors, walls and ceilings; C. stairs, steps, landings, stairways and ramps; D. railings, guards and handrails; and E. garage vehicle doors and the operation of garage vehicle door openers, using normal operating controls. II. The inspector shall describe: A. a garage vehicle door as manually-operated or installed with a garage door opener. III. The inspector shall report as in need of correction: A. improper spacing between intermediate balusters, spindles and rails for steps, stairways, guards and railings; B. photo-electric safety sensors that did not operate properly; and C. any window that was obviously fogged or displayed other evidence of broken seals. IV. The inspector is not required to: A. inspect paint, wallpaper, window treatments or finish treatments. B. inspect floor coverings or carpeting. C. inspect central vacuum systems. D. inspect for safety glazing. E. inspect security systems or components. F. evaluate the fastening of islands, countertops, cabinets, sink tops or fixtures. G. move furniture, stored items, or any coverings, such as carpets or rugs, in order to inspect the concealed floor structure. H. move suspended-ceiling tiles. I. inspect or move any household appliances. J. inspect or operate equipment housed in the garage, except as otherwise noted. K. verify or certify the proper operation of any pressure-activated auto-reverse or related safety feature of a garage door. L. operate or evaluate any security bar release and opening mechanisms, whether interior or exterior, including their compliance with local, state or federal standards. M. operate any system, appliance or component that requires the use of special keys, codes, combinations or devices. N. operate or evaluate self-cleaning oven cycles, tilt guards/latches, or signal lights. O. inspect microwave ovens or test leakage from microwave ovens. P. operate or examine any sauna, steam generating equipment, kiln, toaster, ice maker, coffee maker, can opener, bread warmer, blender, instant hot-water dispenser, or other small, ancillary appliances or devices. Q. inspect elevators. R. inspect remote controls. S. inspect appliances. T. inspect items not permanently installed. U. discover firewall compromises. V. inspect pools, spas or fountains. W. determine the adequacy of whirlpool or spa jets, water force, or bubble effects. X. determine the structural integrity or leakage of pools or spas.

The Inspector/s is Not Required and Shall Not Move items of furniture during the Inspection. We here by make note, that any issues concealed and / or not inspected due to the restrictions of any such household items, therefore not included in the final report are advised to be re-inspected at a time and cost agreed by parties involved. With our disclosure being that costing may well total the sum of a secondary report.

**Kitchen**

10.1 The inspector shall inspect: F. installed ovens, ranges, surface cooking appliances, microwave ovens, dishwashing machines, and food waste grinders by using normal operating controls to activate the primary function. 10.2 The inspector is NOT required to inspect: G. installed and free-standing kitchen and laundry appliances not listed in Section 10.1.F. H. appliance thermostats including their calibration, adequacy of heating elements, self cleaning oven cycles, indicator lights, door seals, timers, clocks, timed features, and other specialized features of the appliance. I. operate, or confirm the operation of every control and feature of an inspected appliance.

**Attic: Ventilation and Insulation**

The inspector shall inspect: A. insulation in unfinished spaces, including attics, crawlspaces and foundation areas; B. ventilation of unfinished spaces, including attics, crawlspaces and foundation areas; and C. mechanical exhaust systems in the kitchen, bathrooms and laundry area. II. The inspector shall describe: A. the type of insulation observed; and B. the approximate average depth of insulation observed at the unfinished attic floor area or roof structure. III. The inspector shall report as in need of correction: A. the general absence of insulation or ventilation in unfinished spaces. IV. The inspector is not required to: A. enter the attic or any unfinished spaces that are not readily accessible, or where entry could cause damage or, in the inspector's opinion, pose a safety hazard. B. move, touch or disturb insulation. C. move, touch or disturb vapor retarders. D. break or otherwise damage the surface finish or weather seal on or around access panels or covers. E. identify the composition or R-value of insulation material. F. activate thermostatically operated fans. G. determine the types of materials used in insulation or wrapping of pipes, ducts, jackets, boilers or wiring. H. determine the adequacy of ventilation.

**Foundation**

The inspector shall inspect: A. the foundation; B. the basement; C. the crawlspace; and D. structural components. II. The inspector shall describe: A. the type of foundation; and B. the location of the access to the under-floor space. III. The inspector shall report as in need of correction: A. observed indications of wood in contact with or near soil; B. observed indications of active water penetration; C. observed indications of possible foundation movement, such as sheetrock cracks, brick cracks, out-of-square door frames, and unlevel floors; and D. any observed cutting, notching and boring of framing members that may, in the inspector's opinion, present a structural or safety concern. IV. The inspector is not required to: A. enter any crawlspace that is not readily accessible, or where entry could cause damage or pose a hazard to him/herself. B. move stored items or debris. C. operate sump pumps with inaccessible floats. D. identify the size, spacing, span or location or determine the adequacy of foundation bolting, bracing, joists, joist spans or support systems. E. provide any engineering or architectural service. F. report on the adequacy of any structural system or component.

### **Heating**

The inspection of the heating system is in conjunction with the NZS4306:2005 Residential Property Inspection Standard guidelines. According to the guidelines, the home inspector will inspect the installed heating equipment, the vent systems, flues and chimneys where readily accessible.

### **Roof**

The inspector shall inspect from ground level or the eaves: A. the roof-covering materials; B. the gutters; C. the downspouts; D. the vents, flashing, skylights, chimney, and other roof penetrations; and E. the general structure of the roof from the readily accessible panels, doors or stairs. II. The inspector shall describe: A. the type of roof-covering materials. III. The inspector shall report as in need of correction: A. observed indications of active roof leaks. IV. The inspector is not required to: A. walk on any roof surface. B. predict the service life expectancy. C. inspect underground downspout diverter drainage pipes. D. remove snow, ice, debris or other conditions that prohibit the observation of the roof surfaces. E. move insulation. F. inspect antennae, satellite dishes, lightning arresters, de-icing equipment, or similar attachments. G. walk on any roof areas that appear, in the inspectors opinion, to be unsafe. H. walk on any roof areas if doing so might, in the inspector's opinion, cause damage. I. perform a water test. J. warrant or certify the roof. K. confirm proper fastening or installation of any roof-covering material.

### **Exterior**

The inspector shall inspect: A. the exterior wall-covering materials, flashing and trim; B. all exterior doors; C. adjacent walkways and driveways; D. stairs, steps, stoops, stairways and ramps; E. porches, patios, decks, balconies and carports; F. railings, guards and handrails; G. the eaves, soffits and fascia; H. a representative number of windows; and I. vegetation, surface drainage, retaining walls and grading of the property, where they may adversely affect the structure due to moisture intrusion. II. The inspector shall describe: A. the type of exterior wall-covering materials. III. The inspector shall report as in need of correction: A. any improper spacing between intermediate balusters, spindles and rails. IV. The inspector is not required to: A. inspect or operate screens, storm windows, shutters, awnings, fences, outbuildings, or exterior accent lighting. B. inspect items that are not visible or readily accessible from the ground, including window and door flashing. C. inspect or identify geological, geotechnical, hydrological or soil conditions. D. inspect recreational facilities or playground equipment. E. inspect seawalls, breakwalls or docks. F. inspect erosion-control or earth-stabilization measures. G. inspect for safety-type glass. H. inspect underground utilities. I. inspect underground items. J. inspect wells or springs. K. inspect solar, wind or geothermal systems. L. inspect swimming pools or spas. M. inspect wastewater treatment systems, septic systems or cesspools. N. inspect irrigation or sprinkler systems. O. inspect drain fields or dry wells. P. determine the integrity of multiple-pane window glazing or thermal window seals. The inspection of this home's exterior system is carried out in conjunction with the NZS4306:2005 Residential Property Inspection Standard.

According to the guidelines, the home inspector will inspect the exterior wall covering, flashing and trim; all exterior doors, attached decks, balconies, stoops, steps, porches, and their associated railings; the eaves, soffits, and fascias where accessible from ground level; the vegetation, grading, surface drainage, and retaining walls on the property when any of these are likely to adversely affect the building; walkways, patios, and driveways leading to dwelling entrances. The inspector will describe the exterior wall covering. The home inspector is not required to inspect screening, shutters, awnings, and similar seasonal accessories; fences; geological, geo-technical or hydro-logical conditions; recreational facilities; outbuildings; seawalls, break-walls, and docks; erosion control and earth stabilization measures.

See the NZS4306:2005 Residential Property Inspection Standard for more detail.

While every effort is made to find all areas of concern, some problems may go unnoticed. The inspection is not meant to be technically exhaustive. Please keep in mind that the inspector has your best interest at heart. Any repair items mentioned in this report should be considered before purchase. It is highly recommended that qualified contractors be used to further inspect or repair issues identified in this inspection report.

Gutters, downspouts, lot grading, window wells, walks, patios, driveways and landscaping all contribute to basement leakage. Basements can leak even if cracks are not visible. That being said, a basement, which is not leaking today, may leak at any time for any number of reasons.

This inspection is not a guarantee that the basement will never leak.

Fascia and soffits are generally inaccessible and not fully visible. Often, this area is prone to concealed rot, insect and pest damage.

### **Electrical**

The inspector shall inspect: A. the service drop; B. the overhead service conductors and attachment point; C. the service head, gooseneck and drip loops; D. the service mast, service conduit and raceway; E. the electric meter and base; F. service-entrance conductors; G. the main service disconnect; H. panelboards and over-current protection devices (circuit breakers and fuses); I. service grounding and bonding; J. a representative number of switches, lighting fixtures and receptacles, including receptacles observed and deemed to be arc-fault circuit interrupter (AFCI)-protected using the AFCI test button, where possible; K. all ground-fault circuit interrupter receptacles and circuit breakers observed and deemed to be GFCIs using a GFCI tester, where possible; and L. smoke and carbon-monoxide detectors. II. The inspector shall describe: A. the main service disconnects amperage rating, if labelled; and B. the type of wiring observed. III. The inspector shall report as in need of correction: A. deficiencies in the integrity of the service entrance conductors insulation, drip loop, and vertical clearances from grade and roofs; B. any unused circuit-breaker panel opening that was not filled; C. the presence of solid conductor aluminium branch-circuit wiring, if readily visible; D. any tested receptacle in which power was not present, polarity was incorrect, the cover was not in place, the GFCI devices were not properly installed or did not operate properly, evidence of arcing or excessive heat, and where the receptacle was not grounded or was not secured to the wall; and E. the absence of smoke detectors. IV. The inspector is not required to: A. insert any tool, probe or device into the main panelboard, sub-panels, distribution panelboards, or electrical fixtures. B. operate electrical systems that are shut down. C. remove panelboard cabinet covers or dead fronts. D. operate or re-set over-current protection devices or overload devices. E. operate or test smoke or carbon-monoxide detectors or alarms F. inspect, operate or test any security, fire or alarms systems or components, or other warning or signaling systems. G. measure or determine the amperage or voltage of the main service equipment, if not visibly labeled. H. inspect ancillary wiring or remote-control devices. I. activate any electrical systems or branch circuits that are not energized. J. inspect low-voltage systems, electrical de-icing tapes, swimming pool wiring, or any time controlled devices. K. verify the service ground. L. inspect private or emergency electrical supply sources, including, but not limited to: generators, windmills, photovoltaic solar collectors, or battery or electrical storage facility. M. inspect spark or lightning arrestors. N. inspect or test de-icing equipment. O. conduct voltage-drop calculations. P. determine the accuracy of labeling. Q. inspect exterior lighting.

### **Plumbing**

The inspection of the plumbing system is in conjunction with the NZS 4306:2005 Residential Property Inspection Standard guidelines. According to the guidelines, the home inspector will inspect the interior water supply and distribution systems including all fixtures and faucets, the drain, waste and vent systems, the water heating equipment, the flues and chimneys where applicable, the fuel storage and fuel distribution systems where applicable and the drainage sumps, sump pump and related piping.

The inspector will describe the water supply, drain, waste and vent piping materials, the water heating equipment including the energy source, and the location of the main water and fuel shut-off valves.

The home inspector shall operate the systems using normal operating controls. Safety and shut-off controls (eg. valves), whether automatic or manual, are not tested because these controls are rarely used by the homeowner (other than in an emergency) and activating these safety controls could damage the controls or equipment (usually by leaking).

The inspector will open readily accessible panels provided by the equipment manufacturer or installer for routine maintenance by the homeowner.

The home inspector is not required to inspect the interiors of flues or chimneys which are not readily accessible, the clothes washing machine connections, wells, well pumps, or water storage related equipment, water conditioning systems, solar water heating systems, fire or lawn sprinkler systems, or private waste disposal systems. (Septic tank).

The inspector is not required to determine whether water supply and waste disposal systems are public or private, or the quantity or quality of the water supply.

See the NZS 4306:2005 Residential Property Inspection Standard for more detail.

**While every effort is made to find all areas of concern, some problems may go unnoticed. The inspection is not meant to be technically exhaustive. Please keep in mind that the inspector has your best interest at heart. Any repair items mentioned in this report should be considered before purchase. It is highly recommended that qualified contractors be used to further inspect or repair issues identified in this inspection report.**

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# STANDARDS OF PRACTICE

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