Housing New Zealand
Housing New Zealand Corporation

Amenity Condition Manual (ACM-200)

The condition and functionality standard for Housing New Zealand building components

Date: 1 July 2019

VERSION 5

Note:

Changes since last edition shown in brown.

All previous Scoping Guides, Specifications and drawings are superseded.

Table of Contents

1 GENERAL

11 Introduction

The *Housing New Zealand Amenity Condition Manual (ACM-200)* describes and establishes the acceptable standard of amenity in Housing New Zealand's rental properties.

The amenity is the value, purpose or service a component in the property is intended to provide.

A component is assessed on the degree of degradation for the condition and functionality for how it performs. For example, an amenity of a roof is to provide weather protection for a property. The condition and functionality of the roof will affect its ability to provide its intended or designed amenity.

A component is assessed against the standard of amenity presented in this document.

Amenity Condition Manual Standard

The *Amenity Condition Manual (ACM-200)* standard for condition and functionality, that each component is required to meet, is derived from, and consistent with, the principles and criteria contained in,

Housing New Zealand Housing Standard four key attributes:

- **Dry** – weathertight and durable, protection from internal moisture and mould
- **Warm** – thermal performance and effective heating
- **Safe** – security, driveway safety, early fire warning systems, protection from incidental injury
- **Essential Amenity** – energy efficient, healthy, sustainable and adaptable for a range of user needs.

Layout of the Amenity Condition Manual

The *Amenity Condition Manual (ACM-200)* contains an Index, Introduction, Glossary and Component Sheets.

The Component Sheets are grouped in seven sections of the Construction Industry Co-Ordinated Building Information Groups and Classes: **Site, Structure, Enclosure, Interior, Finish, Services and External**.

Additional information relating to components in these sections is contained in,

Housing New Zealand Maintenance & Programmed Work Specification (M-215).

Component Sheets

A component sheet is provided for each of the main components found in a property. The component sheets provide the information required to assess whether a component is acceptable or unacceptable in terms of its condition and functionality standard.

Each sheet includes a description of the component and in some cases additional specific information to help determine if a component meets the amenity standard. In all cases it is important to read the descriptive notes to gain a fuller understanding of the intent of the standard. Sheets also contain statements and photos defining the acceptable and unacceptable standard for condition and functionality.

The *Amenity Condition Manual (ACM-200)* does not cover every possible situation and exceptions are acceptable in some cases with approval from the Asset Manager. The information provided within the *Amenity Condition Manual (ACM-200)* should be sufficient to enable users of *Amenity Condition Manual (ACM-200)* to apply the overall intent of the Housing New Zealand standard on property condition and functionality.

CRITICALITY

Criticality relates to the Habitability, Quality of Life and Health and Safety aspects of the property and components being assessed. The four categories of criticality define a situation resulting from a component that is deemed 'unacceptable' and the recommended response time.

This requires an assessor or user of the *Amenity Condition Manual (ACM-200)* to make a judgement on the category of criticality, resulting from an unacceptable component, and respond accordingly. The property Asset Manager and Tenancy Manager should be contacted immediately for any situations judged High Critical or High Risk.

Critical Risk:	Immediate and Sustained Impact on Continuing Occupancy of Property (URG Response – within 4 hours)
High Risk:	Impacts Person's Safe & Healthy Use of Property (URG / GEN Response – within 4 hours to 10 days depending on situation and isolation of hazard)
Moderate Risk:	Impacts on the Daily Function of Property (GEN / Programmed Response – within 10 days or programmed repairs)
Low Risk:	Impacts on the Quiet & Peaceful Enjoyment of Property (Programmed Response)

Intended Users

Performance Based Maintenance Contractors (PBMC) are to use the *Amenity Condition Manual (ACM-200)* as the standard to which all scoping required in Housing New Zealand properties is to be carried out, unless instructed otherwise by Housing New Zealand.

Quality Auditors are to audit properties that have undergone maintenance work to the *Amenity Condition Manual (ACM-200)* standard unless instructed otherwise by Housing New Zealand.

All Housing New Zealand staff, including the Customer Service Centre staff, the Lease Team, the Acquisitions Team and Tenancy Services Group are to use the *Amenity Condition Manual (ACM-200)* to determine whether components in Housing New Zealand properties, including potential acquisitions meet the required standard for condition and functionality.

Home Lease Programme participants lease properties are required to be maintained to the standard defined in the *Amenity Condition Manual (ACM-200)*.

12 Glossary for the Amenity Condition Manual

Accessible
Having features to permit use by all users including people with disabilities.

Access Route
A continuous route that permits movement to and from the apron of the building to the spaces within the building interior.

Access Point
A place where access may be made to a drain or discharge pipe, for inspection, cleaning or maintenance.

Building
Includes all structural and nonstructural components, fixtures, services, drains, permanent mechanical installations, glazing, partitions, ceilings and temporary supports.

Building Interior
The inside of the house / building.

Building Envelope
The construction of the building itself, effectively serving as the separation between the interior and the exterior environments.

Property Exterior
The section including ancillary buildings and exterior amenities.

Cavity Wall
A term used to describe a wall that incorporates a drained cavity.

Cladding
The exterior weather-resistant surface of a building.

Cladding System
The weatherproof enclosure of a building, including; building wraps, claddings and their fixings, windows, doors and all penetrations, flashings, seals, joints and junctions.

Contaminant
Includes any substance (including gases, liquids, solids, microorganisms, energy or heat) that is likely to taint, pollute and affect the performance of a component.

Damage
To render something either wholly or partly inoperable or ineffective, the loss of functionality performance or appearance.

Drain
Pipes, fittings and equipment intended to convey waste water, foul water or surface water to an outfall.

Floor Waste
An outlet located at the low point of a graded floor or at a level floor designed to receive accidental or intentional discharges.

Fixture
An article intended to remain permanently attached to and form part of a building.

Foul Water
The discharge or effluent from any sanitary fixture or sanitary appliance.

Framing
Structural members to which lining, cladding, flooring, or decking is attached, or which are depended upon for supporting the structure, or for resisting forces applied to it.

Habitable Space
A space used for activities normally associated with domestic living. Excludes bathrooms, laundry, toilets, pantry, walk-in wardrobe, corridor, hallway, lobby, or space unoccupied for extended periods.

House
Any house, unit, flat or dwelling in which people are housed.

Hygiene
Personal and domestic preventative measures to reduce the incidence and spreading of disease.

Hygienic
In a condition that reduces the incidence and spread of disease.

Impervious
A surface or material that does not allow the passage of moisture.

Performance
A measurement of some output or behavior.

Performance Criteria
What is expected to be delivered or provided, the standard to be measured against for compliance.

Potable
Water that is suitable for human consumption.

Property
The house and section, including boundaries, entries and all that is enclosed in the defined area.

R-value
The common abbreviation for describing the values of both thermal resistance and total thermal resistance.

Sanitary Appliance
An appliance which is intended to be used for sanitation like a washing machine or dish washer.

Sanitary Fixture
Any fixture which is intended to be used for sanitation like a toilet, bath or shower.

Sanitary Waste
The discharge or effluent from any sanitary fixture or sanitary appliance.

Sewer
A drain that is under the control of or maintained by a Local Authority or network utility operator.

Sound Condition
Being in a condition that is intact, having no defects that impact on appearance or intended function.

Storage Water Heater
A water tank with an integral water heater for the heating and storage of hot water.

Surface Water
All naturally occurring water, other than sub-surface water, which results from rainfall on the site or water flowing onto the site.

Weather tightness and Weathertight
Terms used to describe the resistance of a building to the weather - to limit moisture ingress, prevent undue dampness inside the building and damage to building elements.

2 SITE
22 Groundwork
22.1 Retaining Walls

Purpose: To provide ground stability between differing ground levels.

Description

A retaining wall is a structure that stabilises banks and provides ground stability between differing ground levels.

Retaining walls can be constructed from masonry, stone, brick, concrete, or timber.

Retaining walls require good drainage from behind, such as being partially back filled with metal/gravel, drainage holes and/or drainage coil in the base of the structure.

Acceptable

Figure 1

- All retaining walls are structurally sound
- Sufficient drainage is in place.

Unacceptable

Figure 2 and Figure3

- Retaining wall is unstable, has moved out of place, is substantially cracked, is leaning outwards
- Ground is unstable or slipping and requires a retaining wall
- There is no drainage for the retaining wall.

Figure 1

Figure 2

Figure 3

23 Foundations

23.1 Piles

Purpose: To provide solid, stable and level support for the house construction and for the floor.

Description

Pile foundations can be either concrete or timber piles embedded in concrete, or driven round timber poles. The floor structure (joists and bearers) are fastened 'tied' to the piles.

Types of piles include anchor piles and cantilever piles which resist lateral loads, braced piles which are restrained with diagonal braces and ordinary piles that carry gravity loads only.

Acceptable

- Floor and foundations are structurally sound
- Piles provide adequate support for the house
- Piles provide for a flat floor.

Unacceptable

Figure 1,Figure 2 and Figure 3

- Piles have moved
- Piles have dropped from subsidence
- Piles are in poor condition, split, broken, cracked
- Piles are missing
- Piles are not fixed in place in the ground, or not tied to the bearers
- Floor structure is incomplete
- Soil around the piles has eroded or cracked
- Pile bracing is missing or damaged.

Figure 1

Figure 2

Figure 3

3 STRUCTURE
31 Concrete
31.1 Walls and Floors

Purpose: To provide a solid, stable and level foundation to support the building structure, and to provide a floor.

Description

Perimeter foundation walls and floor slabs are constructed of reinforced concrete with construction joints to control cracking.

Concrete floors are normally constructed with reinforced poured concrete footings, a foundation perimeter wall, then a concrete slab poured and 'floated' smooth to form the interior floor.

Some floors use a 'slab-on-grade' process where the solid poured floor also forms the footings.

Acceptable Figure 1 and Figure 2

- Concrete floor and foundations are structurally sound
- Concrete floor is smooth and level
- Concrete floor level or perimeter foundation wall achieves adequate ground clearance to control ground water from entering the building or subfloor
- Concrete perimeter foundation wall provides adequate subfloor natural ventilation.


Figure 1


Figure 2

Unacceptable Figure 3

- Concrete floor or perimeter foundation wall has sunk from subsidence
- Concrete floor or perimeter foundation wall has excessive cracking or structural cracks
- Concrete floor or perimeter foundation wall has displaced from the building structure
- Concrete has degraded, is crumbling or spalding
- There is the presence of moisture in the floor or sub floor
- Unfinished or painted floor that is not slip resistant.


Figure 3

31.2 Paving

Purpose: To provide a sealed hard surface for safe movement to and around the building.

Description

Hard surfaces are concrete paths, driveways, patios, stairs, ramps, landings and parking areas. Concrete paving is a permanent, low maintenance surface that provides for ease of access to and around the property, while protecting the area from erosion.

Concrete surfaces are generally poured on site and shaped to falls to allow surface water drainage.

Acceptable

Figure 1 and Figure 2

- Concrete steps, ramps and landings are structurally sound
- Concrete surface is laid to fall water away from the building
- Concrete surface is safe
- Steps and ramps have a uniform and safe rise and adequate landings.

Figure 1

Figure 2

Unacceptable

Figure 3

- Surface presents a tripping or slipping hazard (e.g. greater than 15mm)
- There is ponding, or excess water on the surface
- Surface is damaged, broken up or cracked
- There are weeds growing through the surface
- There is moss or lichen growth on the surface.

Figure 3

38 Timber

38.1 Roof Framing

Purpose: To provide structural support for the roof covering and ceiling lining.

Description

The framing that forms the structure to support the roof is referred to as the rafter or truss.

In hipped or gabled roof structures the roof framing forms a space above the ceiling.

In skillion roof structures the ceiling lining is usually fixed to the bottom of the rafters forming a sloping ceiling and there is no space above the ceiling.

Acceptable

Figure 1

- Roof structural system is complete and structurally sound
- Roofing is fully supported
- Ceiling is fully supported.

Figure 1

Unacceptable

Figure 2, Figure 3 and Figure 4

- Roof structural system has failed
- There is environmental, wind or earthquake damage
- Rafter or truss is split, rotten or warped
- Rafter or truss is heat damaged
- Fixings are missing or deteriorated
- Bracing is damaged
- Ceilings are sagging
- Substrate is wet.

Figure 2

Figure 3

Figure 4

4 ENCLOSURE

41 Tanking and pre-cladding

41.1 Underlays and Barriers

Purpose: To provide a durable and protective.

Description

Ground Vapour Barriers consisting of polyethylene film installed under the building on to the ground surface provides a protective barrier from ground dampness.

Single Reflective Foil consisting of foil is either draped over joists, hanging between them, or is stapled to the underside of joists, strapped for support and tape-sealed at the edges. Any holes or gaps in the foil render it ineffective, as it relies on a still air layer to provide an effective barrier. Draped foils are usually perforated.

Wall underlays are usually synthetic wraps used as a vapour barrier located on the exterior of the framing.

Acceptable

Figure 1 and Figure 2

- Single Reflective Foil in good condition with support strapping and taped joins
- Ground Vapour Barrier in good condition with sealed laps and cuttings around foundations and piles.

Figure 1

Figure 2

Unacceptable

Figure 3 and Figure 4

- No ground vapour barrier to exposed ground subfloor
- Vapour barrier is torn or is not sealed at laps or cuttings.

Figure 3

Figure 4

42 Wall Cladding

42.1 Timber Weatherboard

Purpose: To provide a durable and protective exterior wall surface.

Description

Timber weatherboard is vertical or horizontal profiled timber that is over lapped and fixed to the framing. The weather board joints are usually concealed with a metal soaker. The timber weatherboard system is completed with a paint finish.

Acceptable

Figure 1

- Timber board cladding system is complete and sound.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Timber board cladding is not weathertight
- Soakers or jointers are missing or broken
- Soakers, jointers or fixings are rusting
- There is rot, end-grain splitting or holes in the weather board
- Timber board cladding is not securely fixed to the wall framing
- Coating system has failed.

Figure 1

Figure 2

Figure 3

Figure 4

42.2 Plywood Cladding

Purpose: To provide a durable and protective exterior wall surface.

Description

Plywood cladding are panels of plywood or sheeting fixed to the framing. Panels may be interlocking, joined with jointers or may have trim over the joint for weather tightness.

Plywood is completed with a paint finish.

Sheeting is manufactured with an Aluminium, PVC or Vinyl cover finish.

Acceptable

Figure 1 and Figure 2

- Plywood cladding system is complete and sound
- There is adequate ground clearance to control ground water from entering the cladding system
- Coating system is in good condition.

Figure 1

Figure 2

Unacceptable

Figure 3

- Plywood cladding is not weathertight
- There is the presence of ground moisture 'wicking' into the plywood cladding
- Joints are open for moisture to enter behind the cladding system
- Soakers or jointers are missing, damaged or not securely fixed
- Plywood cladding is warped, delaminated or has edge splitting
- Plywood cladding is not securely fixed to the wall framing
- There are missing, cracked or broken panels
- Coating system has failed or the cover finish is damaged exposing the substrate.

Figure 3

42.3 Subfloor Cover Boards

Purpose: To protect the subfloor structure and secure the area from uncontrolled access.

Description

Timber cover boards are the trim fixed to the building sub floor framing. Cover boards are spaced to allow for air flow under the house. Timber cover boards are completed with a paint finish.

Acceptable

Figure 1

- Cover boards close-in the subfloor area and are sound
- Cover boards provide adequate subfloor natural ventilation
- Coating system is in good condition.

Unacceptable

Figure 2 and Figure 3

- Subfloor is not fully enclosed
- Cover boards are not securely fixed
- There is rot in the cover boards
- There is the presence of moisture in the sub floor.

Figure 1

Figure 2

Figure 3

42.4 Fascia Boards

Purpose: To provide a durable and protective edge to the roof surface.

Description

Timber fascia board is the trim which runs along the edge of the roof at the eaves. Spouting is usually attached to the timber fascia board.

Barge boards are the exposed board that finishes the end of a projecting roof.

Acceptable

Figure 1

- Fascia or barge board finish to the roof edge is sound
- Coating system is in good condition.

Unacceptable

Figure 2 and Figure 3

- Fascia is not weathertight
- Fascia or barge board is not securely fixed to the roof structure
- Fascia is split, warped, rotting, or the joints have come apart.

Figure 1

Figure 2

Figure 3

42.5 Fibre Cement Cladding

Purpose: To provide a durable and protective exterior wall cladding.

Description

Fibre cement cladding can be either a weather-board or panel sheet form. The substrate is made from cement mixed with ground sand, cellulose fibre, and other additives.

It is important to maintain a good waterproof or paint coating on all fibre cement cladding. It is also critical to ensure there is a gap between the bottom of the cladding and the ground. Fibre-cement can act as a moisture 'reservoir', resulting in dampness in the home and an increase in moisture loadings levels within the wall. This can cause swelling, delamination and eventual failure of the material.

Acceptable

Figure 1 and Figure 2

- Fibre cement cladding system is complete and sound
- There is adequate ground clearance to control ground water from entering the cladding system
- Coating system is in good condition.

Figure 1

Figure 2

Unacceptable

Figure 3 and Figure 4

- Fibre cement cladding is not weathertight
- There is the presence of ground moisture ‘wicking’ into the fibre cement cladding
- Soakers or jointers are missing, damaged or not securely fixed
- Fibre cement cladding is warped or has delaminated edges
- Fibre cement cladding is not securely fixed to the wall framing
- There are missing, cracked or broken panels
- Coating system has failed or the surface is not sealed.

Figure 3

Figure 4

42.6 Cement Asbestos Cladding

Purpose: To provide a durable and weather protective exterior wall surface.

Description

Duroc siding is cement/asbestos based cladding system with direct fix to framing/battens. Duroc siding can be painted or left unpainted.

Acceptable

Figure 1

- Asbestos cladding system is complete and sound
- There is adequate ground clearance to control ground water from entering the cladding system.

Figure 1

Unacceptable

Figure 2

- Asbestos cladding is not weathertight
- There is the presence of ground moisture 'wicking' into the asbestos cladding
- Joints and cracks are open for moisture to enter behind the cladding system
- Asbestos cladding is not securely fixed to the wall framing
- There are missing, cracked or broken panels
- Coating system has failed or the surface is not sealed.

Figure 2

42.7 Soffit Cladding

Purpose: To provide a lining to the underside of the roof eave or barge overhang.

Description

Soffit is the lining on the underside of a roof eave or barge overhang. Soffit may also be referred to as eaves lining.

Eaves linings may be boxed flat or sloping over the framing or the linings may be laid behind exposed rafters.

The soffit may be clad with sheet material or timber boarding.

Soffits, in some earlier buildings, may have ventilation slots or vents and or be constructed of perforated hardboard (peg board).

Acceptable

Figure 1

- Soffit cladding system is complete and sound
- Coating system is in good condition.

Figure 1

Unacceptable

Figure 2

- Soffit is not weathertight
- There is rot or mould on the soffit
- Eaves lining is not securely fixed to the framing
- There are holes in the soffit, panels are missing or broken
- Joint strips or trims are missing, damaged or not securely fixed
- There is the presence of moisture, vermin or birds entering the soffit
- Coating system is flaking, peeling or damaged.

Figure 2

42.8 Profiled Metal Cladding

Purpose: To provide a durable and protective exterior wall surface.

Description

Profiled metal cladding is vertical or horizontal profiled steel sheets which are lapped and fixed to framing. They are most commonly used on garages and sheds.

Profiled steel can be pre-painted or zinc/aluminium coated or galvanized.

Acceptable

Figure 1

- Metal cladding system is complete and sound.

Figure 1

Unacceptable

Figure 2

- Metal cladding is not weathertight
- There are broken, missing or damaged sheets
- Metal cladding is not securely fixed to the wall structure, sheets are lifting, moving or loose
- Soakers or flashings are missing, not securely fixed or in poor condition
- Coating system has failed.

Figure 2

42.9 Brick Veneer Cladding

Purpose: To provide a durable and protective exterior wall surface.

Description

Brick veneer wall consists of a single non-structural external layer of masonry, typically brick, tied back to the building structure, timber or metal framing. The wall has a ventilated cavity.

Bricks are usually left in natural state but can also have a paint finish.

Acceptable

Figure 1

- Brick veneer cladding is complete and sound
- Brick veneer forms part of a ventilated moisture-draining cladding system
- Brick veneer surface or coating system is in good condition.

Unacceptable

Figure 2 and Figure 3

- Brick veneer cladding system is not weather resistant
- There are cracks in the brick veneer
- Cavity ventilation is obstructed or blocked
- Brick veneer is not securely fixed to the wall framing
- There is the presence of efflorescence, or 'mineral salts', on the surface, or coating system has failed.

Figure 1

Figure 2

Figure 3

42.10 Concrete Veneer Cladding

Purpose: To provide a structural element as well as durable and protective exterior wall.

Description

Concrete block and precast concrete panel claddings generally provide a structural system for the building as well as the substrate for the waterproof coating. They often form the sub floor of the house.

Pre-cast concrete walls are cast in sections/panels, either on site or in a precast factory, and are lifted into place and bolted together. The sections are sealed, typically with gaskets or caulk.

Concrete block masonry walls are made from hollow concrete blocks, laid like bricks, with steel reinforcing and filled with concrete. Some early block systems may be hollow.

Acceptable

Figure 1

- Concrete block and panels are complete and structurally sound
- Concrete block perimeter foundation wall provides adequate subfloor natural ventilation
- Coating system is in good condition.

Unacceptable

Figure 2 and Figure 3

- Concrete veneer cladding system is not weathertight
- There are cracks in the concrete block or panels
- There is the presence of moisture in the sub floor
- There is the presence of efflorescence, or 'mineral salts', on the surface, or coming through the coating
- Coating system has failed or the surface is not sealed.

Figure 1

Figure 2

Figure 3

42.11 Stucco Cladding

Purpose: To provide a durable and protective exterior wall.

Description

Stucco is concrete plaster applied in several layers to a rigid or flexible backer. It is reinforced with galvanised meshed wire and then surface coated. The appearance is of a continuous, seamless finish with no junctions to the exterior walls.

Acceptable

Figure 1

- Stucco cladding system is complete and structurally sound
- There is adequate ground clearance to control ground water from entering the cladding system
- Coating system is in good condition.

Unacceptable

Figure 2

- Stucco cladding is not weathertight
- There is the presence of ground moisture 'wicking' into the stucco cladding
- There are cracks or damage to the cladding
- Stucco cladding is not securely fixed to the wall structure
- Coating system has failed.

Figure 1

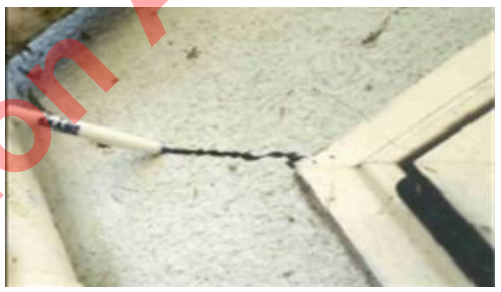

Figure 2

43 Roofing and decking

43.1 Profiled Metal Roofing

Purpose: To provide a durable and weathertight roof cover.

Description

Iron or steel roofing is cold rolled and formed into various profiles.

The roofing sheets can be galvanised or zincalume coated or pre-coated.

Acceptable

Figure 1

- Metal roofing system is complete and sound
- Roof profile has adequate fall to control rainwater flow towards gutters and spouting
- Coating system is in good condition.

Unacceptable

Figure 2 and Figure 3

- Metal roofing system is not weathertight
- Roof profile has been flattened or misshapen and inhibits rainwater shedding
- There is evidence of water ponding
- Metal roofing sheets are not securely fixed to the roof structure
- Roof accessories, such as hip, valley flashings and ridging are missing, not securely fixed, corroded or blocked
- There is accumulation of debris, moss or lichen growth on the surface
- There is damage caused by the installation of equipment such as TV aerials
- Metal roofing sheets are corroded (red or white rust)
- Coating system has failed.

Figure 1

Figure 2

Figure 3

43.2 Masonry Tile Roofing

Purpose: To provide a durable and weathertight roof cover.

Description

Clay or concrete interlocking roof tiles laid over roof battens are fixed with tie wires or nails. Ridges and caps are pointed to the tiles for a weathertight system.

Acceptable

Figure 1

- Masonry tile roofing system is complete and sound
- Roof structure is adequate for the weight of the masonry tile roofing
- Roof profile has adequate fall to control rainwater flow towards gutters and spouting
- Minimal moss and lichen growth
- Masonry tile surface or coating system is in good condition.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Masonry tile roofing system is not weathertight
- Roof profile has sagging or tile displacement
- Masonry tiles are missing, loose or broken
- Pointing is missing, loose or cracked
- Erosion of tile surface, cracking or chipping that will cause the tile to leak or become porous
- Roof accessories, such as ridging are missing or not securely fixed
- Excessive accumulation of debris, moss or lichen growth
- There is damage caused by the installation of equipment such as TV aerials.

Figure 1

Figure 2

Figure 3

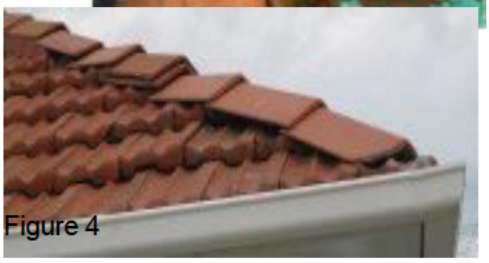

Figure 4

43.3 Cement Asbestos Roofing

Purpose: To provide a durable and weather protective roof surface.

Description

Fibre cement roofs (Super 6, Super 8 and corrugate profiles) are fibrous asbestos product.

Refer to and follow the *Housing New Zealand Asbestos Management & Control Policy (HS-213).*

Acceptable

Figure 1.

- Asbestos roofing surface appears intact and is sound
- Minimal debris, moss and lichen growth.

Figure 1

Unacceptable

Figure 2

- Asbestos roof is not weathertight
- Asbestos roofing is extremely weathered, has deteriorated to expose the asbestos fibre or has a 'fluffy' appearance
- Asbestos roofing is brittle, broken or can be crushed by hand
- Roof accessories, such as metal hip or valley flashings ridging are corroded, blocked or not weather tight
- Accumulation of debris, moss or lichen growth.

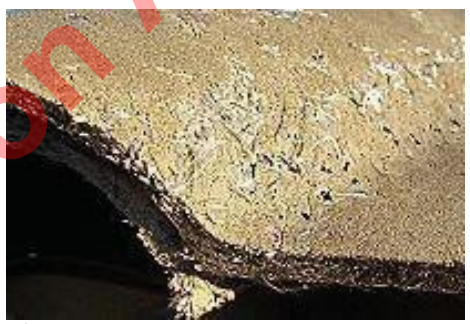

Figure 2

43.4 Pressed Steel Tile Roofing

Purpose: To provide a durable and weathertight roof cover.

Description

Pressed metal or alloy roof tiles are fixed to battens that are fixed onto rafters or trusses. Pressed metal tiles may be pressed into long-run sheets.

Pressed steel tile roofing system can withstand a lower pitch than masonry tiles and are typically supplied with purpose made flashings for hips, ridges and gables.

Pressed metal and alloy roof tiles may have a stone chip coating bound in acrylic glue.

Early pressed stone chip metal roofs are prone to lose chips but these can be resurfaced or repainted by professionals if in otherwise good condition.

Roofs are prone to being damaged by moss and mould and people walking on them as well as corrosion in coastal environments.

Acceptable

Figure 1 and Figure 2

- Pressed steel tile roofing system is complete and sound
- Roof profile has adequate fall to control rainwater flow towards gutters and spouting
- Pressed steel tile surface or coating system is in good condition.

Unacceptable

Figure 3 and Figure 4

- Pressed steel tile roofing system is not weathertight
- Pressed steel tiles are dented or depressed to a degree where it allows water to 'pool', or in a way that opens up joints or overlays
- Roof accessories, such as metal hip or valley flashings, ridging are corroded or blocked
- Accumulation of debris, moss or lichen growth
- Delamination of surface coating or corrosion of metal tile
- Significant loss of stone chips.

Figure 2

Figure 3

Figure 4

43.5 Decks

Purpose: To provide an outdoor living area and a landing at entrance ways.

Description

A timber deck is an open platform suspended over the ground on piles and attached to the exterior of a house. Timber decking is laid over the timber structure.

Acceptable

Figure 1

- Timber deck system is complete and structurally sound
- Timber deck forms part of a ventilated moisture-draining system
- Timber decking surface is safe.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Timber deck structural system does not meet building code
- There is excessive structural movement
- There is water draining into the building where the deck is attached to the building
- Timber deck has rot, mould, splitting or deterioration to decking, bearers, joists or piles
- Joist hangers or bolts or other structural connectors are missing or loose or corroded
- There are hazards such as slippery or warped decking, nonslip coating or protruding nails
- Access to services such as a gully trap or subfloor is restricted
- Coating system to the structure or surface is in a deteriorated condition.

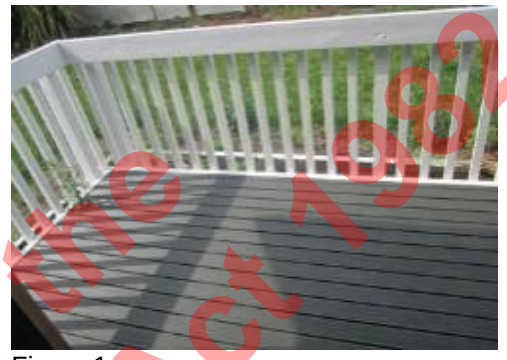

Figure 1

Figure 2

Figure 3

Figure 4

43.6 Steps, Ramps and Landings

Purpose: To provide access between differing levels exterior to the building.

Description

Stairs, landings and ramps constructed of timber.

Acceptable

Figure 1

- Timber steps, ramps and landings are complete and structurally sound
- Timber steps and ramps have a uniform and safe rise and adequate landings
- Timber steps, ramp and landing surface is safe.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Support structure has rot, rust or deterioration
- There is water draining into the building where the steps, ramp or landing is attached to the building.
- There are hazards such as slippery or warped decking, nonslip coating or protruding nails, missing or uneven steps or landing
- Access to services such as a gully trap or subfloor is restricted
- Coating system to the structure or surface is in a deteriorated condition.

Figure 1

Figure 2

Figure 3

Figure 4

44 Membrane Roofing

44.1 Rubber Sheet Membrane

Purpose: To provide a durable and water resistant cover to a roof, deck or gutters.

Description

Membrane roofing is usually laid over plywood to achieve a continuous water resistant cover to low slope roofs, decks or gutters.

The membrane consists of one layer of glue fixed synthetic rubber and may have an applied protective coating or decking laid over the membrane, such as for trafficable areas over an interior space.

Membrane roofing is also used to form internal gutters and parapet wall up stands. The base and sides of the gutter are lined with the membrane to form a continuous finish.

Acceptable

Figure 1

- Membrane roofing system is complete and sound
- Roof or deck profile, parapet or gutter has adequate fall to control rainwater flow away from entering the building
- Membrane surface or protective coating system is in good condition.

Figure 1

Unacceptable

Figure 2

- Roof is not weather tight
- Hardening, cracking or cuts are allowing moisture to penetrate the membrane
- Movement between the membrane and the substrate or the substrate is damaged
- Fall to drain water is ineffective or ponding has occurred
- Joints or flashings are lifting, are not sealed or are missing
- Accumulation of debris, moss or lichen growth
- Coating system to the surface is in a deteriorated condition.

Figure 2

45 Windows and doors

45.1 Exterior Windows

Purpose: To provide for natural light and ventilation into the indoor environment.

Description

Window joinery is most commonly timber or aluminium.

Timber joinery normally uses putty to seal the glazing, while aluminium joinery uses a rubber bead.

Exterior timber facings and scribers, head, jamb and sill flashings all form part of the weather tight system around window joinery by closing the gaps between joinery and claddings.

External joinery requires assessment from both sides for condition of the joinery, beads, putty, flashings, facings, finish and function of the hardware to prevent intrusion and injury reduction.

Acceptable

Figure 1.

- Exterior window joinery system is complete and sound
- Window system has opening sashes for adequate air flow
- All opening sashes are operational and have the appropriate security and safety stays
- Coating system to joinery, facings, flashings and glazing seal are in good condition.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Window joinery system is not weather tight
- There is rot, rust or decay
- Flashings or scribers are missing, broken or damaged
- Opening sash does not seal or cannot be opened or closed
- Glazing seals or putty are missing, damaged or not securely holding the glass
- There is access through louvres to locks or handles on an external door or window
- Security or safety stays are missing, damaged or ineffective
- Air flow to remove moisture is ineffective
- Coating system is in a deteriorated condition, flaking, peeling or bubbling.

Figure 1

Figure 2

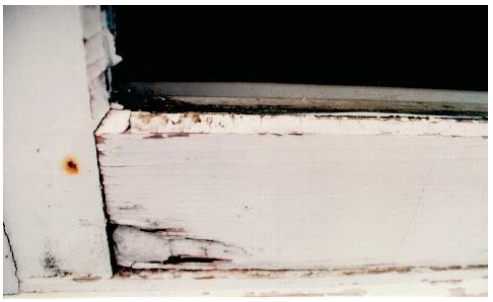

Figure 3

Figure 4

45.2 Exterior Doors

Purpose: To allow the building to be secured and to have a weather protected point of entry.

Description

Exterior doors are most commonly solid timber, timber frame or aluminium and may be sliding, bi-folding or hinged.

Exterior doors provide direct egress from the building in an emergency without the use of a key and prevent intrusion.

Acceptable

Figure 1 and Figure 2

- Exterior door system is complete and sound
- Fully operational and secure with keyless egress
- Coating system is in good condition.

Figure 1

Figure 2

Unacceptable

Figure 3

- Exterior door system is not weathertight
- There is rot, rust or decay
- Exterior door cannot be freely opened or closed
- Exterior door requires a key to exit
- Coating system is in a deteriorated condition.

Figure 3

45.3 Skylights

Purpose: To direct natural light and ventilation from the roof into the indoor environment.

Description

Tube skylights are a roof-mounted dome that directs natural light into a highly reflective tube that extends from the roof level to the ceiling level, terminating in a ceiling-mounted diffuser.

The roof dome system may provide passive or mechanical ventilation.

Acceptable

- Tube skylight system is complete and sound
- Roof mounted dome is in good condition and moderately clean
- Ceiling mounted diffuser is in good condition and moderately clean.

Unacceptable

- Tube skylight system is not weather-tight
- Roofing or flashing supporting the tube dome is damaged
- Roof mounted dome is missing, broken or very dirty
- Ceiling mounted diffuser is missing, broken or very dirty
- Reflective tube from the roof to ceiling is damaged, has holes or tears, is not adequately supported or securely fixed at either end.

Figure 1

Figure 1

45.4 Garage Door

Purpose: To allow the vehicle storage area to be secured.

Description

Garage doors are generally of lightweight prefinished metal over a structural frame. Garage doors are most commonly a roller door on a drum located above the opening, or door that lift up and run on tracks such as the tilting door with one rigid panel or the sectional door with horizontal hinged sections.

Acceptable

Figure 1 and Figure 2

- Garage door has no holes and seals along all edges when closed
- Garage door is easy and safe to operate and secure
- Garage door is in good condition with only minor surface damage.

Unacceptable

Figure 3 and Figure 4

- Garage door has a gap at the top, bottom or sides
- Door panels are damaged
- Faulty runners or tracks
- Faulty automatic door opener
- Locking or latching mechanism is not working.

Figure 1

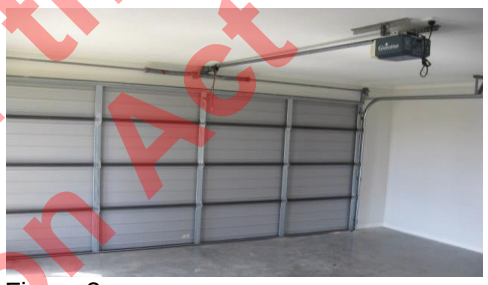

Figure 2

Figure 3

Figure 4

46 Glazing

46.1 Glazing

Purpose: To allow natural light and thermal energy into the indoor environment and allow visibility to the outdoor environment while providing a weather tight surface.

Description

Glass fitted to windows or doors is referred to as 'glazing'. A single piece of glazing is called a pane of glass.

Glazing is available in a number of thicknesses, colours and opacity and can be single glazed or double glazed. Double glazing has two panes of glass separated by a spacer and sealed together in an integrated glass unit. The space between panes is air or gas filled and may contain desiccant crystals to absorb moisture in the space. Double glazing reduces heat loss or heat gain through windows.

Glazing has specific characteristics for sound attenuation (acoustic glass), reduced light transmission (tinted, opaque or frosted glass), increased strength and durability (toughened, safety glass) or standard annealed glass that will splinter and shatter when damaged.

Acceptable

Figure 1

- Glazing is complete and sound
- Glazing is safe for the location.
- Glazing has minor cracks <140mm.

A typical mark showing it is safety glass. The licence number is for third-party certification

Figure 1

Unacceptable

Figure 2 and Figure 3

- Glazing has cracks longer than 140mm across the corner of a window/door.
- Glazing is broken or missing or cracked
- Glazing has an edge that can catch or cut occupants or object
- Glazing is not secure (loose or rattling)
- Glazing is not safe (annealed glass where toughened is required)
- Glazing is laminated glass.

Figure 2

Figure 3

47 Insulation

47.1 Ceiling Insulation

Purpose: To reduce heat lost through the ceiling.

Description

Ceiling insulation is available as loose fill, segments and blanket. The most common forms of ceiling insulation are polyester, wool or fibreglass blanket

Blanket is draped over the ceiling joists which limits the thermal bridging through the timber.

Segmented ceiling insulation is most effective when placed between the ceiling joists.

Loose fill insulations include macerated paper (Insulfluff), loose sheep's wool, Rockwool and chopped fibreglass. Fibreglass loses effectiveness in damp conditions.

Acceptable

- Insulation is dry and safe
- Insulation is installed throughout the entire available ceiling space
- There is a label with insulation and installation details clearly visible near the ceiling access point.

Unacceptable

Figure 1 and Figure 2

- There is no insulation
- Insulation has gaps
- There is the presence of compression within the installed layer of insulation
- Insulation does not have adequate clearance from a down light
- Insulation does not have adequate clearance from a chimney
- There is the presence of moisture in the insulation or ceiling cavity.

Figure 1

Figure 2

47.2 Floor Insulation

Purpose: To reduce heat loss through the floor.

Description

Under floor insulation is available as low density bulk insulation, semi rigid polyester insulation and polystyrene sheets.

Polystyrene Sheets are friction fitted between joists, supported by small brackets, to maintain a gap between the underside of floor and the top of the sheet. Edge joints against framing and butt joints between sheets are glued continuously with no gaps.

Semi-rigid polyester insulation is friction fitted between joists. To be effective it must have no gaps, no compression points, be hard against the underside of the floor.

Bulk Insulation is a light weight low density polyester or fibre-glass, stapled between joists. It comes in a range of colours, usually white, grey or light green. To be effective it must have no gaps, no compression points, be hard against the underside of the floor.

Acceptable

Figure 1, Figure 2 and Figure 3

- Insulation covers the entire available floor area and is sound
- There are visible labels indicating live wires
- There is a label with insulation and installation details clearly visible near the subfloor access point
- Polystyrene Sheet Insulation is securely fitted to the underfloor and supported with brackets
- Semi-rigid Polyester Insulation is friction fitted between joists
- Bulk insulation is stapled between joists.

Figure 1

Figure 2

Figure 3

Unacceptable

Figure 4

- There is no under floor insulation to the subfloor
- Floor insulation does not cover the complete floor area where there is adequate space
- Insulation is dislodged, sagging, damaged, has holes or gaps
- There are no visible labels indicating live wire
- Insulation is stapled to the floor.

Figure 4

47.3 Wall Insulation

Purpose: To reduce heat loss through the walls.

Description

The most effective wall insulation are semi-rigid polyester segments. Softer forms of blanket insulation including fibre-glass will slump over time. Even small creases and minor gaps in insulation decrease thermal performance significantly.

Acceptable Figure 1

- Insulation is dry
- Insulation is fitted complete to the wall area it covers.

Figure 1

Unacceptable Figure 2

- There is the presence of moisture in the insulation or wall
- Insulation has gaps around the perimeter or between segments
- There is no building wrap or gap there is no between the insulation and the external cladding
- Insulation is compressed and tucking.

Figure 2

48 Enclosure sundries

48.1 Exterior Handrails and Balustrades

Purpose: To prevent an accidental fall from the building or spaces associated with a building.

Description

A barrier to prevent an accidental fall should be rigid, of sufficient strength to withstand the pressure of users leaning against it, and of a design that prevents head entrapment and climbing by children.

A balustrade is the infill parts of a barrier and can have a handrail attached to it.

Handrails are fixed to a wall or barrier at a fixed height to provide support for users to safely navigate stairs or ramps. Handrails are typically timber or steel with a profile suitable for grasping by the hand.

Acceptable

Figure 1

- Barriers are structurally sound and safe
- Handrails are adequately supported, smooth and graspable.

Unacceptable

Figure 2 and Figure 3

- Balustrade or handrail does not meet building code
- Balustrade, handrail, support structure or fixings has rot, rust or deterioration
- There is no handrail
- There is water draining into the building where the barrier is attached to the building.
- There is structural movement
- There are hazards such as protruding nails
- Coating system is in a deteriorated condition.

Figure 1

Figure 2

Figure 3

48.2 Fire Escape Ladder and Stairs

Purpose: To assist emergency evacuation of multi-level buildings.

Description

Fire escape ladder and stairs are attached to the exterior of the building, with access from an upper floor, such as a window or door, and generally constructed of timber or steel.

Acceptable

Figure 1

- Fire escape stairs are structurally sound and safe.

Figure 1

Unacceptable

Figure 2

- Fire escape ladders.
- Stairs are not firmly secured
- Stairs, support structure or fixings has rot, rust or deterioration
- There is water draining into the building where the stair is attached to the building
- There is structural movement
- There are hazards such as protruding nails
- Coating system is in a deteriorated condition.

Figure 2

48.3 Subfloor Door

Purpose: To provide secure access to the subfloor area under the building.

Description

Subfloor door in the subfloor cladding provides access to the subfloor area to allow maintenance under the building.

Access to the subfloor may be through an access hatch within the building if not from the outside.

Acceptable

Figure 1 and Figure 2

- Subfloor door is easily opened and large enough for a person to access the subfloor area
- Subfloor door is easily secured in the closed position.

Figure 1

Figure 2

Unacceptable

Figure 3 and Figure 4

- There is no subfloor access
- Opening is too small or obstructed
- Subfloor door has come off its hinges or is not easy to open
- Subfloor area is being used to store rubbish
- Pad-bolt is damaged, missing or miss-aligned.

Figure 3

Figure 4

5 INTERIOR
51 Wall and ceiling linings
51.1 Ceiling Access Panel

Purpose: To provide access to the roof space.

Description

Ceiling access panel is provided to access the roof space.

Acceptable

- Location and a size of the ceiling access panel allows unimpeded access for maintenance
- Ceiling access panel is safe to operate and secure
- Ceiling access panel and trim is in good condition.

Unacceptable

- There is no access to the ceiling cavity
- Ceiling cavity access has no cover
- Ceiling access panel is difficult to open or does not stay open or does not provide easy access for maintenance
- Ceiling access is unrestricted
- Ceiling access panel or trim is damaged or loose
- Ceiling access panel is uninsulated.

Figure 1

Figure 1

51.2 Wet Wall Linings

Purpose: To provide a durable, hygienic and easy to clean wall surface in wet areas.

Description

Wet wall linings have a durable high gloss pre-finished surface that is impervious to water and easy to clean.

Jointing systems at sheet edges and junctions with other components prevent water ingress to walls, the ceiling and floor and effectively drain water off the wall surface without pooling along joints or recesses. Drained joints prevent capillary attraction between the wet wall lining and sanitary fixtures or flooring.

Acceptable

Figure 1.

- Wet wall lining system is complete and sound
- Surface finish and joints are in good condition, is easily cleaned with only minor surface mould.

Figure 1

Unacceptable

Figure 2 and Figure 3

- There is no wet wall lining above the shower rose, shower tray, bath or basin.
- There is no drained joint between the bottom edge of wet wall lining and the shower tray, bath, basin or coved flooring
- Wet wall lining is bowing, has delamination or deterioration
- There is the presence of water pooling along joints
- Joints and cracks are open for moisture to enter behind the wet wall lining system.
- There is moderate to heavy mould.

Figure 2

Figure 3

51.3 Trim

Purpose: To provide a decorative and functional junction between surfaces and materials.

Description

Timber trim is used to cover joints and gaps at wall, ceiling and floor junctions and finished with paint or polyurethane.

Scotia or cornice trim occurs at the junction of the wall and ceiling. Skirting trim occurs at the junction of the wall and the floor. Architrave trim surrounds a door or window opening. Wall batten trim is a bead generally used to cover a joint between two sheets of wall or ceiling lining.

Acceptable

Figure 1

- Timber trim is complete across its entire length
- Timber trim is fixed firmly to the wall, ceiling or floor surface
- Timber trim is in good condition with only minor surface mould.

Unacceptable

Figure 2

- Loose, missing or broken pieces
- Significant gaps at corners and joins
- Visible gaps between the trim and the wall, ceiling or floor surface
- There is the presence of water damage
- Mould to more than 20% of trim surface or thick and concentrated in a localised area
- There is borer damage
- Surface finish is flaking or peeling over food preparation, eating or sleeping areas or to more than 20% of the trim length
- Skirting or architrave is medium density fibre board.

Figure

Figure 2

52 Doors

52.1 Interior Doors

Purpose: To enclose and connect spaces.

Description

Interior doors are hollow core, flush panel doors with a paint or polyurethane finish. Doors can be hinged or sliding.

Flush doors have an outer skin on each face of ply or medium density fibre board. The skins are separated by a cardboard honey-comb lattice or a polystyrene foam core.

Acceptable

Figure 1

- Door opens and closes freely
- Door has clashing strips firmly attached
- Door is operational and has the appropriate hardware
- Door and frame is in good condition with only minor surface scuffs and scratches.

Figure 1

Unacceptable

Figure 2 and Figure 3

- Door frame is missing a door
- Door or frame is damaged
- Door clashing strips are loose or missing
- Door cannot be freely opened or closed
- Hardware is missing or damaged
- Significant scuffs or scratches to more than 20% of the door area
- Door patches not flush or finish not matching with the surface
- Surface finish is in a deteriorated condition.

Figure 2

Figure 3

54 Floors

54.1 Timber Floor

Purpose: To provide a level base to the building.

Description

Solid timber floors are made from dressed profiled timber laid together. The timber comes in two styles, square-edged boards and a tongue & groove system. The floor is generally sealed with a clear finish.

Acceptable Figure 1

- Timber floor is complete and sound
- Timber floor is securely fixed to the subfloor structure, nails are countersunk
- There is adequate ground clearance and subfloor ventilation
- Borer damage is superficial and can be treated
- Floor finish is in good condition.

Unacceptable Figure 2 and Figure 3 and Figure 4

- Timber floor has significant spring
- Timber floor, support structure or fixings has rot, rust or deterioration
- Timber floor has holes, water or mould damage
- Nails are 'popping' or protruding through the timber floor
- Floor has significant borer damage
- Coating system is in a deteriorated condition.

Figure 1

Figure 2

Figure 3

Figure 4

54.2 Plywood Sheet and Particle Board

Purpose**:** To provide a level base to the building.

Description

Plywood sheet flooring is made of multiple layers of wood veneer bonded together.

Particle board flooring is made of wood chips or particles bonded together with an adhesive under high pressure. It may have a protective coating on one side to prevent moisture ingress from the ground.

Acceptable Figure 1

- Wood based sheet or board floor is complete and sound
- Wood based floor is securely fixed to the subfloor structure, nails are countersunk
- There is adequate ground clearance and subfloor ventilation
- Floor finish is in good condition.

Unacceptable Figure 2 and Figure 3 and Figure 4

- There is separation between sheets or joints are not tight
- Wood based floor has significant spring
- Wood based floor, support structure or fixings has rot, rust, delamination or deterioration
- Wood based floor has holes, water or mould damage
- Nails are 'popping' or protruding through the wood based floor
- Coating system is in a deteriorated condition.

Figure 1

Figure 2

Figure 3

Figure 4

55 Joinery and proprietary fixtures

55.1 Benchtops

Purpose: To provide a durable, hygienic, water resistant surface for food preparation.

Description

Benchtops provide smooth level kitchen work surface that is durable, hygienic and water resistant. Benchtops can be acrylic, stainless steel, or timber with a hard durable surface such as polyurethane or laminate.

Benchtops with and an integrated or inset sink have either an integrated up-stand or protective watertight lining finished against adjacent surfaces.

Acceptable

Figure 1 and Figure 2

- Benchtop is level, impervious to liquids and hygienic
- Benchtop is securely fixed in place and is fixed to the cabinet carcass
- Benchtop with sink has an up-stand or protective lining to adjacent surfaces
- Junctions between the bench top and adjacent surfaces are sealed.

Unacceptable

Figure 3 and Figure 4

- Bench top is loose or not in the correct position
- Bench top surface is pitted, worn or scratched, delaminating or not easily cleaned
- Adjacent surface is damaged or not easily cleaned
- Junctions between the bench top and adjacent surfaces are not watertight.

Figure 1

Figure 2

Figure 3

Figure 4

55.2 Kitchen Cabinets

Purpose: To provide hygienic and secure storage for food, crockery and utensils in the kitchen.

Description

Cupboards, drawers and pantries are made from timber with a paint finish or Melamine, Custom-board, Plywood or Medium Density Fibre Board with a serviceable veneer or laminate finish.

Doors on hinges are fitted with latches. Drawers on runners and rollers are fitted with stops to prevent them from being easily pulled out of the cabinet. There is a child proof restrictor fitted to a door.

Pantry and cupboard doors, drawer fronts, sides and tops have a durable surface that is free from holes and damage, protects the cabinet structure and provides a cleanable surface that can be kept hygienic.

Acceptable

Figure 1

- Kitchen cabinetry is complete and securely fixed in place
- Drawers and doors are easy and safe to operate and fitted with the appropriate hardware
- Drawers are removable to allow for cleaning
- Doors are hung securely
- Surface finishes are hygienic.

Unacceptable

Figure 2 and Figure 3

- Kitchen cabinetry has moved, is not fixed in place
- Drawers and doors are difficult to open or do not close fully
- Door or drawer hardware is missing or damaged
- Cabinet fronts, sides or tops has holes, gaps, rot, delamination or deterioration
- There is the presence of water, mould, insects or rodents
- Interior surfaces of cupboards and drawers are not easily cleaned
- Cabinet fronts, sides or tops are not easily cleaned.

Figure 1

Figure 2

Figure 3

55.3 Laundry Cabinet

Purpose: To provide secure storage in the laundry.

Description

Laundry cabinets support the laundry tub and provide storage. The cabinet can be manufactured from prefinished steel with integrated tub and taps, or a timber cabinet with a paint finish. The finish is water resistant and easy to clean and keep hygienic.

The laundry cabinet is securely fixed to the wall and has an integrated up-stand or protective watertight lining finished against adjacent surfaces.

Laundry cabinets have a child proof restrictor fitted to the door.

Acceptable

Figure 1 and Figure 2

- Laundry cabinet is in good condition, securely fixed to the wall
- Laundry cabinet interior is dry and has only minor mould
- Cupboard door is easy and safe to operate and has the appropriate hardware.

Figure 1

Figure 2

Unacceptable

Figure 3

- Laundry cabinet has moved, is not fixed in place
- Door is difficult to open, is not fitted with a functioning child proof restrictor or does not latch in the closed position
- Cabinet has holes, gaps, rot, delamination or deterioration
- Interior surface has moderate or significant mould
- Adjacent surface is damaged or not easily cleaned
- Junctions between the cabinet and adjacent surfaces are not watertight
- Cabinet finish is in poor condition and not easy to clean.

Figure 3

55.4 Vanity Cabinet

Purpose: To provide adequate storage in the bathroom.

Description

Vanity cabinet with integral hand basins is securely fixed to the wall and sealed to a water resistant splash-back behind the basin. Cabinets can be wall or floor mounted. The finish is water resistant and easy to clean and keep hygienic.

Acceptable

Figure 1

- Vanity cabinet is in good condition, securely fixed to the wall
- Vanity surface is hygienic and has only minor cracking
- Vanity cabinet interior is dry and has only very minor mould
- There is a water resistant splash lining behind the cabinet and the basin is sealed to the lining.

Unacceptable

Figure 2 and Figure 3

- Vanity cabinet has moved, is not fixed in place
- Door or drawer is difficult to open or does not close fully
- Door or drawer hardware is missing or damaged
- Surface has significant cracks, scratches, holes, gaps, rot, delamination or deterioration
- Interior surface has moderate or significant mould
- Adjacent surface is damaged or not easily cleaned
- Junctions between the cabinet and adjacent surfaces are not watertight
- Cabinet finish is in poor condition and is not easy to clean.

Figure 1

Figure 2

Figure 3

55.5 Medicine Cabinet

Purpose: To provide secure storage in the bathroom.

Description

Bathroom medicine cabinet is securely fixed in or on the wall, typically above or near the basin or vanity.

The cabinet is typically of timber construction with a paint finish. The door on hinges has an operable latch and is fitted with a child proof restrictor. The door typically has a mirror front. The finish is water resistant and easy to keep clean and hygienic.

Acceptable

Figure 1

- Bathroom medicine cabinet is in good condition, securely fixed in or on the wall
- Surface finish is hygienic and has only minor surface mould
- Door is easy and safe to operate and has the appropriate hardware
- Mirror is securely fixed and has only minor reflective surface defects.

Figure 1

Unacceptable

Figure 2 and Figure 3

- Bathroom medicine cabinet has moved, is not fixed in place
- There is mould over more than 20% of the surface
- Door is missing, difficult to open or does not close fully
- Door hardware is missing or damaged
- Mirror is not securely fixed, is cracked or broken
- Mirror reflective surface has more than 10% defective area
- Cabinet finish is in poor condition and is not easy to clean.

Figure 2

Figure 3

55.6 Cupboards

Purpose: To provide adequate storage for clothes in a bedroom.

Description

Cupboards can be 'built in' or a free standing unit. Free standing storage cupboards are securely fixed to the wall structure. Interior walls and doors are paint finish unless a prefinished lining material is used. Timber shelving may be unfinished.

Wardrobe can be 'built in' or a free standing unit with doors and a paint finish.

Storage cupboard for the purpose of hanging coats and boots is typically open storage closet referred to as the Hall Recess, generally found in the hall or entrance lobby.

Linen cupboard for the storage of linen has shelving and a door.

Hot water cylinder cupboard to accommodate the hot water cylinder has a door.

Acceptable

Figure 1 and Figure 2

- Cupboard is complete and structurally sound
- Cupboard has clean, dry interior linings, floor and shelves
- Door or hardware is easy and safe to operate.

Figure 1

Figure 2

Unacceptable

Figure 3

- Cupboard has displaced from the building structure or is not fixed in place
- There is the presence of holes, moisture or mould to interior linings, floor or shelves
- Door or hardware is missing or damaged
- Cupboard finish is in poor condition.

Figure 3

55.7 Door Hardware

Purpose: To enable the safe and effective operation of a door.

Description

Door hardware includes hinges, locks, latches, knobs handles and strike plates housed into the door jamb.

Doors have hardware for the door to function safely. Door closers close the door slowly and firmly with just sufficient pressure to latch the door. Privacy latches have emergency release from the outside. Door stops protect wall linings.

Acceptable

Figure 1

- Door hardware is complete and functional
- Door has the appropriate hardware is easy and safe to operate
- Exterior doors have a secure door lock, can be unlocked from the inside without a key
- Interior doors have a latch, can be opened from the inside and cannot be locked.

Unacceptable

Figure 2 and Figure 3

- Door hardware is missing or damaged
- Exterior door cannot be locked or requires a key to unlock from the inside
- Interior doors can be locked
- Privacy lock cannot be released from the outside in an emergency
- Door stop is missing or ineffective.

Figure 1

Figure 2

Figure 3

55.8 Window Hardware

Purpose: To enable the safe and secure operation of window sashes.

Description

Window hardware includes hinges, stays, passive vents, fasteners and catches. Window hardware is to ensure a closed window forms a good seal.

Window security stays protect occupants from falling or secure the building.

Acceptable

Figure 1 and Figure 2

- Window hardware is complete and appropriate, is easy and safe to operate
- Closed sash is secure and forms a good seal
- Open sash is safe and secure.

Unacceptable

Figure 3 and Figure 4

- Hinges, fasteners, catches, restrictors or security stays are missing or damaged
- Sash cannot be securely closed
- Sash cannot be secured in an open position or does not prevent access where fall height is over 2m
- There is the presence of gaps around the sash when closed
- Window fire escape sash with a security stay has the pin in the locked position.

Figure 1

Figure 2

Figure 3

Figure 4

55.9 Subfloor Grill

Purpose: To provide adequate ventilation to the subfloor area underneath the building.

Description

Subfloor ventilation grills provide ventilation to the sub-floor cladding or perimeter wall.

To test there is adequate ventilation to the subfloor area, get some dirt from under the house and rub it firmly in your hands. If the dirt stains like a mud stain there is too much moisture and the subfloor ventilation is inadequate.

Acceptable

Figure 1 and Figure 2

- Subfloor ventilation grills are sound, secure and complete
- Subfloor is dry and secure.

Unacceptable

Figure 3 and Figure 4

- Subfloor ventilation grill is broken, missing or loose
- Subfloor ventilation grill is part or fully obstructed
- There is the presence of too much moisture in the sub floor.

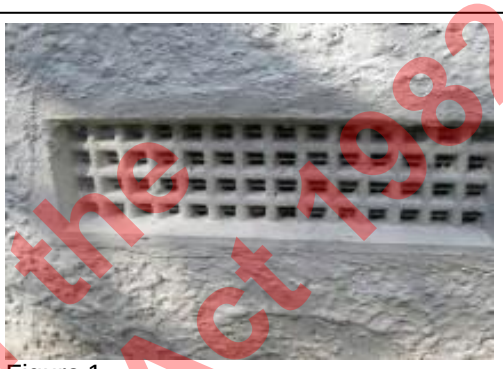

Figure 1

Figure 2

Figure 3

Figure 4

55.10 Joinery Hardware

Purpose: To enable the safe and secure operation of joinery and storage.

Description

Joinery and furniture hardware includes cabinet handles, child proof restrictor, range anti tipping device, coat hooks, wardrobe rails, towel rails, grab rails, toilet roll holder.

Acceptable

Figure 1, Figure 2 and Figure 3

- Joinery and furniture hardware is complete and appropriate, is easy and safe to operate
- Joinery and furniture hardware is securely fixed in place.

Unacceptable

Figure 4

- Joinery and furniture hardware is missing or damaged or not securely fixed in place
- Toilet roll holder cannot be easily reached
- Towel rail is positioned so towels touch the floor or fixed with a toggle bolt or plastic plug
- Grab rail cannot be easily reached.

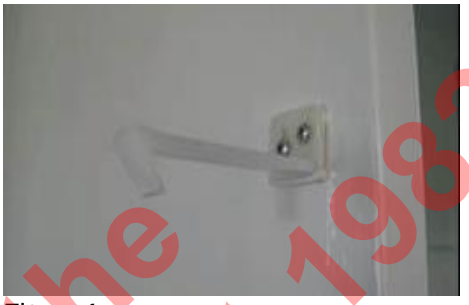

Figure 1

Figure 2

Figure 3

Figure 4

55.11 Smoke Alarms

Purpose: To provide smoke detection warning.

Description

Battery smoke alarms provide an early smoke detection warning by emitting a high pitched sound, once smoke is detected. Smoke cannot be detected in dead air space.

Smoke Alarms have a test button and a hush button to allow nuisance alarms to be silenced without removing the battery. Some alarms may have long life sealed batteries.

Acceptable

Figure 1

- Smoke alarm is securely mounted and is clean
- Smoke alarm is fully operational.

Unacceptable

Figure 2 and Figure 3

- Smoke alarm is missing
- There is a wall or other obstruction within 300 mm of the smoke alarm
- Smoke alarm is not firmly fixed to the ceiling, has broken or missing cover
- There is no working battery
- There is no response to the test button
- There is dirt or paint on the surface or under the cover.

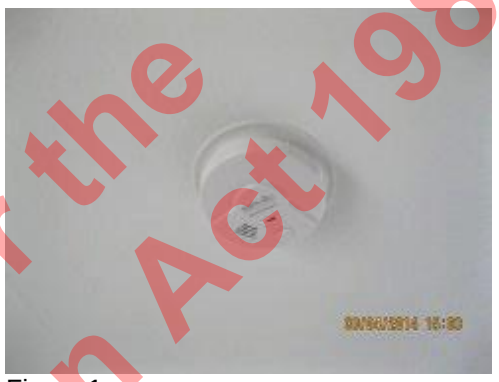

Figure 1

Figure 2

Figure 3

55.12 Curtains

Purpose: To provide privacy, to control heat loss or to control water discharge.

Description

Curtains are hung on a curtain track system or a curtain rod system, fixed to the wall or ceiling. Curtain track system supports a track and sliding eyelets. Curtain rod system supports a rod and glides.

Acceptable

Figure 1

- Curtains are easy to open clear of the window or opening, are safe and adequately supported
- Curtain track or rod system is securely mounted and extends the full length of the window or opening.

Unacceptable

Figure 2 and Figure 3

- There is no curtain track or rod system
- Curtain track or rod is bowing or twisting or too short
- Curtain track fixings are loose or missing
- Curtain does not seal along the top at the wall.
- Curtain does not fully open, there are too many sliding eyelets or they are damaged or worn or missing
- Curtain is missing, excessively dirty
- There is a flammable surface within 1 metre of the curtain
- Shower curtain does not discharge water into the bath or shower tray.

Figure 1

Figure 2

Figure 3

6 FINISH
62 Tiling
62.1 Wall Tiles

Purpose: To provide a durable, hygienic and easy to clean wall surface.

Description

Wall tiles are a hard decorative lining, normally made of ceramic that are adhered to the wall surface and jointed by grouting. Tiles surface finish provides protection to the wall from heat and water ingress.

Sealed grout provides a joint that is impervious to water and resistant to dirt, grease and mould.

Acceptable

Figure 1 and Figure 2

- Tiles are complete and sound
- Tiles are sealed around fittings
- Joints are easily cleaned with only minor surface mould
- Tiles have only minor mismatching.

Unacceptable

Figure 3 and Figure 4

- There is the presence of water pooling on joints, sills or in recesses
- There is water or heat damage to adjacent surfaces
- Missing, cracked or damaged tiles
- Grout has absorbed dirt, is missing or has moderate to heavy mould
- Tiles are porous or have surface deterioration
- Significantly mismatched tiles.

Figure 1

Figure 2

Figure 3

Figure 4

62.2 Floor Tiles

Purpose: To provide a durable, hygienic and easy to clean floor surface.

Description

Floor tiles are a hard decorative flooring, normally made of ceramic, slate, terra-cotta or marble that are adhered to the floor surface and jointed by grouting.

Sealed grout provides a joint that is impervious to water and resistant to dirt, grease and mould.

Threshold strip provides a smooth joint between different floor finishes.

Acceptable

Figure 1

- Tiles are complete, sound and safe
- Tiles are sealed around fittings and along edges
- Tiles and joints are easily cleaned.

Unacceptable

Figure 2 and Figure 3

- There is the presence of water pooling on joints or edges
- Missing, cracked or damaged tiles
- Grout has absorbed dirt, is missing or has mould
- Tiles are porous or have surface deterioration
- There are sharp edges
- Threshold strips are missing or a hazard
- Tile surface is not slip-resistant.

Figure 1

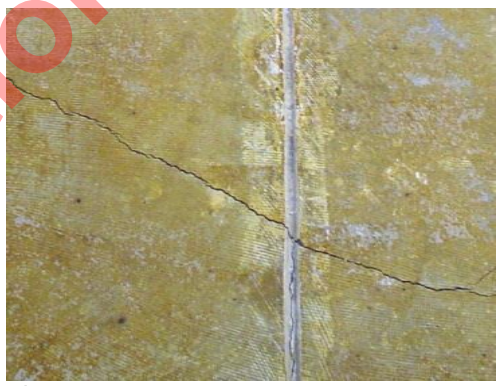

Figure 2

Figure 3

64 Resilient surfacing

64.1 Vinyl

Purpose: To provide a durable, water resistant, hygienic and easy to clean floor surface.

Description

Vinyl flooring is available in sheet and tile form, and is fixed to the floor or ply underlay, with adhesive. The seams on vinyl flooring are heat welded. Seams on tiles and linoleum are butted (not welded).

Vinyl has a water resistant surface.

Threshold strip provides a smooth joint between different floor finishes.

Acceptable

Figure 1

- Vinyl is in good condition, securely fixed and safe
- Vinyl is sealed to edges or trims
- Joins are water tight
- Water resistant surface is easy to clean.

Unacceptable

Figure 2 and Figure 3

- Vinyl is damaged, cracked or torn
- Vinyl is not fixed in place
- Vinyl is not continuous under the edges of fixtures
- Joins are not water tight
- Threshold strips are missing or a hazard
- Vinyl surface is worn thin or heavily marked over more than 20% of the floor area or through the main traffic area.

Figure 1

Figure 2

Figure 3

65 Carpeting

65.1 Carpet

Purpose: To provide a durable and comfortable floor covering.

Description

Carpet is a nylon, wool or blended floor covering that provides a durable and comfortable finish to interior floor surfaces. Carpet can be glue fixed or stretched over an underlay onto perimeter carpet grippers.

Acceptable

Figure 1

- Carpet is securely fitted and safe
- Carpet has only minor wear, staining or discoloration.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Carpet is loose or a trip hazard
- Carpet is badly stained or discoloured
- Carpet is threadbare over more than 20% of the floor area or through the main traffic area
- Carpet has an unpleasant odour, is water damaged or has mould.

Figure 1

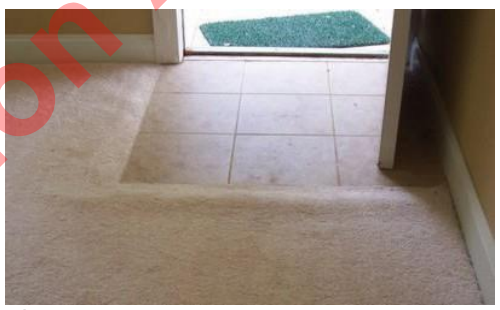

Figure 2

Figure 3

Figure 4

67 Painting, decoration and coating

67.1 Exterior Paint

Purpose: To provide a durable and protective exterior surface.

Description

The exterior surface of the building usually has a paint finish, unless it is a veneer or a prefinished coating, such as Aluminium, PVC or Vinyl.

Acceptable

Figure 1

- Paint finish protects the substrate from rain, wind and sun
- Paint finish has a reasonable appearance.

Unacceptable

Figure 2 and Figure 3

- Paint is flaking, peeling, bubbling or deteriorated
- Surface does not have an adequate coverage of paint, or has not received a top coat of paint
- There is the presence of water damage to the substrate
- There is organic growth or mould on the surface
- Glazing compound is unpainted.

Figure 1

Figure 2

Figure 3

67.2 Interior Paint

Purpose: To seal and decorate the interior surface.

Description

Paint is an aesthetic and protective covering applied to the surface of the ceiling, walls, windows, doors, trims and cabinetry. All surfaces are painted unless previously polyurethane or a prefinished product.

Surface mould is acceptable if it can be cleaned without damaging the surface. Surface mould is a light to moderate covering of mould that has not penetrated or damaged the finished surface and is cleanable with common household products.

Acceptable

Figure 1

- Paint finish covers all the surface
- Paint finish has a reasonable appearance
- Painted surface has only minor pin or nail holes, markings, stains or flaking.

Unacceptable

Figure 2 and Figure 3

- There are significant cracks in the surface finish
- There is the presence of sagging or bowing substrate
- There are more than 20 pin holes within a square metre of the surface area
- There are more than 5 nail holes within a square metre of the surface area
- There is flaking paint above food preparation, dining or sleeping areas
- Mould, stains, or flaking paint over more than 20% of the surface area
- There is heavy, thick or concentrated mould in a localised area
- Significantly mismatched patches of paint.

Figure 1

Figure 2

Figure 3

67.3 Polyurethane

Purpose: To clear seal the interior surface.

Description

Polyurethane is a hard durable water resistant protective covering applied to the surface of doors, cabinetry, benchtops and trims.

Polyurethane is used to finish repairs on existing polyurethane finish surfaces only.

Acceptable

Figure 1

- Polyurethane finish covers all the surface
- Polyurethane finish is water resistant and has a reasonable appearance
- Polyurethane surface has only minor markings, scratches or wear.

Unacceptable

Figure 2 and Figure 3 and Figure 4

- There is the presence of moisture damage to the substrate
- Flooring is damaged, has significant defects or there is significantly mismatched patches of flooring
- Polyurethane surface is worn thin or heavily scratched or marked over more than 20% of the floor area.

Figure 1

Figure 2

Figure 3

Figure 4

67.4 Wallpaper

Purpose: To seal and decorate wall linings.

Description

Wallpaper is an aesthetic and protective covering applied to the surface of an interior wall.

Wallpaper is used to finish repairs on existing wallpapered walls only. Changing to a paint finish from a wallpaper finish can be done one wall at a time depending on the condition of each wall in the room.

Localised areas of damage may be patch-repaired by regluing or re-paper using a full drop of wallpaper to match the existing wall paper colour.

Acceptable

Figure 1

- Wall paper finish covers all the surface
- Wall paper finish has a reasonable appearance.

Unacceptable

Figure 2 and Figure 3

- There are significant cracks in the surface finish
- There is the presence of sagging or bowing substrate
- There are more than 20 pin holes within a square metre of the surface area
- There are more than 5 nail holes within a square metre of the surface area
- Mould, stains, markings, torn or lifting wall paper over more than 20% of a single drop
- Mould, stains, markings, torn or lifting wall paper over more than 20% of the majority of drops on a wall
- There is heavy, thick or concentrated mould in a localised area
- Significantly mismatched patches of wall paper.

Figure 1

Figure 2

Figure 3

7 SERVICES
71 Liquid supply
71.1 Local Water Supply

Purpose: To provide a potable water supply for sanitary and hygiene requirements, consumption, food preparation, utensil washing and laundering.

Description

The majority of water supply is reticulated water provided by a Local Authority water-main. The property is connected to the water-main via a mains connection at the Toby on the property.

The Toby is a mains isolating tap, normally located on the property boundary in a Toby box in the ground. In apartments and flats the toby may be found where the water pipe first enters the unit, or in a common riser cupboard.

Local Authority water supply for potable water meets the *'Drinking-water Standards for New Zealand 2005 (Revised 2008) (DWSNZ)'.*

Leaks can occur in the buried water supply line between the meter and the building. These leaks are often difficult to detect because the supply pipe is usually buried at least 600mm below the ground surface. If the Toby box contains water, and the water is not due to rain or irrigation run-off, this may indicate a leak.

Acceptable

- There is an adequate reticulated supply of potable water
- Toby is fully operational and sound.

Figure 1

Figure 1

Unacceptable

- There is the presence of water in or around the toby box
- There is insufficient potable water
- Non potable water supply is not clearly labelled
- Toby cannot be easily reached or is damaged.

Figure 2

Figure 2

71.2 Artesian Rain Water Supply

Purpose: To provide a potable water supply for sanitary and hygiene requirements, consumption, food preparation, utensil washing and laundering.

Description

Potable water is free of contaminants that may cause illness, is visually clear and not offensive in appearance odour or taste. Artesian/Groundwater and rain water collection are alternatives to a reticulated Local Authority supply.

Artesian water or ground bore water is drawn from underground by a pump, it can be stored in a tank or pumped to a pressurised vessel and supplied on demand.

Rain water is collected from the roof and stored in a holding tank, then piped to the house and pressurised for supply. Storage tanks have a cover lid to protect water from heat and sunlight. Sediment may accumulate below the outlet of the tank.

Water supplies intended to be used for human consumption, food preparation, utensil washing, oral hygiene or personal hygiene is to meet the *'Drinking-water Standards for New Zealand 2005 (Revised 2008) (DWSNZ)'.*

Acceptable

Figure 1

- There is an adequate potable water supply
- Supply and storage systems are complete, fully operational, safe, secure and sound.

Figure 1

Uacceptable

Figure 2 and Figure 3

- There is insufficient potable water supply or water storage capacity
- Supply or storage systems are damaged, degraded or not water tight
- Pipe work has contaminants or sediment is accumulating
- Rain water collection for potable water supply is in contact with contaminants such as preservative-treated wood or lead paint
- Tank has sediment accumulating above the storage tank outlet
- Tank cover is not removable to allow inspection or cannot be secured
- Tank stand is not structurally sound
- There is the presence of vermin in the tank.

Figure 2

Figure 3

71.3 Header Tank

Purpose: To hygienically and efficiently pressurise open vented hot water systems.

Description

Header tank provides gravity fed water pressure to a hot water open vented system often known as low pressure system.

The header tank is fed from mains water supply and the water level is regulated by a ballcock or float valve. Water is fed from the header tank to the bottom of the hot water cylinder.

The water pressure available in the unit is determined by the height of the water level in the tank above the water outlets.

Header tanks are normally located in the ceiling roof cavity and can also be externally located on top of the roof.

Internal header tanks have a drip or overflow tray to collect and divert overflow water to a drain on the exterior of the building.

Acceptable

Figure 1

- There is an adequate supply of hot water pressure to ensure the adequate flow of water
- Header tank is safe, secure and sound.

Unacceptable

Figure 2 and Figure 3

- Tank, ballcock or pipe work is leaking or damaged
- Tank is overflowing
- There is no overflow tray or overflow does not flow to exterior drain
- No cover or lid on the tank
- Header tank seismic restraint does not meet building code.

Figure 1

Figure 2

Figure 3

71.4 Water Pipe System

Purpose: To deliver and distribute water.

Description

Hot and cold water pipes distribute pressurised water from the water supply to sinks, toilets, laundries, bathtubs, and related fixtures.

Supply pipes can be made of copper or polybutylene. Galvanised water pipes deteriorate as they age and can contaminate the water with rust.

Water pipe system has hot water delivery temperature between 45 to 50 degrees Celsius. Hot water temperature at the closest tap is 50°C. Water delivery temperature is set to 45 degrees Celsius at the shower. A temperature limiting valve is designed to mix cold water into the discharging hot water so that the water delivered from the hot water cylinder to the taps never exceeds a set temperature.

Water flow rate is maximum 10 litres per minute and minimum 6 litres per minute at the shower.

Acceptable

Figure 1

- Water pipe system is safe and sound
- There is adequate flow of water in the water pipes
- Water pipes and connections are appropriately sized, fitted and protected
- Water volume can be measured and shut off for maintenance.

Unacceptable

Figure 2 and Figure 3

- Water supply, back flow or cross connection are not potable or are contaminated
- Water storage or hot water supply is inadequate
- Water supply does not have mechanisms to prevent scalding, electric shock or explosion
- Water pipes and connections are too small, loose, corroded or leaking, are vulnerable to freezing or cause noise transmission within the building
- Hot water pipe is not insulated for the first 1m from the HWC
- There is no tempering valve fitted or it is not adjusted to deliver the correct outlet temperature
- Isolating valve is not provided to each separate unit or a shut off valve is not provided at the boundary
- Water meter is not supplied, does not function or is not easy for the meter reader to access.

Figure 1

Figure 2

Figure 3

71.5 Solar Hot Water

Purpose: To provide an energy efficient supplementary water heating system.

Description

Solar hot water systems can be used to supplement the normal hot water system, or installed to replace less efficient water heating systems.

Water or glycol is circulated through a collector, normally located on a north facing roof surface to maximise solar input. This harnesses energy from the sun to heat the fluid, which in turn is transferred to a heat exchanger in the Hot Water Cylinder.

Passive solar system (also called a thermosiphon system) has no control or pumps and relies on thermosiphoning for its heat transfer.

Active solar system (also known as forced circulation) uses an electronic controller and an electric pump to circulate the fluid or the storage water. Tanks can be located in attics, basements or even outside the building at ground level.

Repairs and maintenance of a solar hot water system should always be carried out by a qualified solar hot water specialist.

Acceptable Figure 1.

- There is an adequate supply of hot water
- Structural support for the solar hot water system and components is sound
- Solar water heater and all components are complete, secure, safe, sound and protected.

Unacceptable Figure 2 and Figure 3 and Figure 4 and Figure 5

- There is not an adequate supply of hot water
- There is the presence of structural failure in the building not able to support the load of the solar hot water system and components
- Solar water heater, pipework, collector panels, cylinder, controller or safety devices are damaged, loose, corroded or leaking
- Bleaching of the absorber surface
- Hot water pipe work is not fully lagged
- Roof penetrations are not sealed or incompatible materials have been used causing degeneration of roofing or adjacent materials
- Panels not oriented or angled appropriately
- Water from an installed system discharges to the roof
- System does not provide protection from Legionella bacteria.

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

71.6 Sanitary Fixtures

Purpose: To provide a durable, hygienic, water resistant surface.

Description

Sanitary fixtures includes kitchen sinks, laundry tubs, shower trays, wash hand basins, bathtubs, toilet suites and accessories.

Kitchen sinks are made of stainless steel, and can be integrated or inset into the benchtop. The sink has a sink plug and is positioned under the taps, any water or liquid on the sink benchtop and in the sink drains to the sink waste. The sink is earth bonded.

Laundry tubs are made of stainless steel, and can be bracket mounted or supported on a tub cabinet. The tub has a waste connection with a built in overflow and a plug and a separate washing machine discharge pipe. The tub is earth bonded.

Shower tray made of stainless steel may have a stainless steel threshold, and is earth bonded. Accessible showers may have a shower hose hand piece, slide, wall rail and brackets.

Wash hand basins are made of vitreous or acrylic, and can be wall mounted or integral with vanity cabinets. The basin has a waste connection with a built in overflow and a plug.

Bathtub may have a high lip edge and overflow, has a waste connection and a plug.

Toilets are made of vitreous toilet pan, plastic two flap seat and cistern. Most cisterns are plastic with an internal water flushing mechanism. The cistern overflow exits by a pipe either through the wall in older cisterns or directly into the pan with modern cisterns.

Acceptable

Figure 1

- Sanitary fixture effectively manages water
- Sanitary fixture is safe, easy to clean, securely fixed in place and sound
- There are effective water resistant splash linings.

Unacceptable

Figure 2 and Figure 3

- Sanitary fixture is not secured in place or is unstable
- Sanitary fixture is not sealed to adjacent surfaces or penetrations are not adequately sealed
- Sanitary fixture is leaking or there is the presence of water damage in adjacent surfaces
- There is no plug or the plug is not secured
- Surface is damaged, cracked or is not easy to clean
- There is the presence of rust more than 50mm x 50 mm within a localised area
- Stainless steel fixture is not earth bonded
- Waste connection leaks or is blocked
- Sanitary fixture has broken, or loose or missing components
- Laundry tub is concrete or has no separate washing machine discharge pipe
- Shower is excessively slippery or does not effectively retain water
- Toilet is not flushing fully or is overflowing
- Cistern overflow pipe is not draining clear of the building.

Figure 1

Figure 2

Figure 3

71.7 Tapware

Purpose: To provide an outlet for water delivery.

Description

Tapware includes bath taps and mixers, shower heads and mixers, hand basin taps and mixers, kitchen taps and mixers, laundry taps and exterior taps.

Exterior taps are potable (unless marked otherwise) made of brass with screwed thread outlet for the connection of a hose fitting.

Taps are clearly identified as hot (red) or cold (blue) and may have level handles.

Acceptable

Figure 1 and Figure 2

- Tapware is complete, secure and in a serviceable condition
- Taps are easy to operate and completely shut off the water supply when in the closed position
- Water is delivered unobstructed when tap is fully open
- There is hot and cold running water over the kitchen sink and in the laundry over the laundry tub
- Hot and cold running water is supplied in bathrooms separately for hand basin, bath and shower
- Laundry has separately controlled hot and cold tap outlets for the washing machine hose connection.

Figure 1

Figure 2

Unacceptable

Figure 3

- Taps and mixers are not clearly labelled as hot or cold
- Hot water delivery temperature is not safe
- Outlet or part of it is missing, broken or damaged
- Outlet is loose or not securely screwed back to the wall, splash-back or fixture
- Outlet is dripping or leaking
- Outlet is difficult to operate
- Water flow and pressure are too high or too low.

Figure 3

72 Gas

72.1 Gas Supply

Purpose: To provide gas for cooking appliances, hot water or space heating.

Description

Reticulated gas is piped into the property via a mains supply pipe, to a shut off valve and meter installed and owned by the gas supplier. Gas meter and isolation valves are mounted at ground level on an external wall, within 3 metres of the front of the building in a straight line from a gas main. Metering equipment for apartment buildings may be located in a room on an external wall of the building, with vents and opening doors that can be accessed from the street.

Bottled gas is supplied to the property via bottled Liquefied Petroleum Gas, connected to a regulator and condensate trap. Bottles or cylinders are located so gas delivery can be made safely by one person without excessive manual handling or risk. Bottles are sized for the number of appliances installed in the building. All bottles/cylinders have a LAB number allocated by OSH when a cylinder is approved, and tested and certified every ten years, recorded on the bottle.

Gas is reticulated from the gas meter or gas bottle regulator through the building gas pipe work system to the various appliances.

Acceptable

Figure 1

- Gas supply system is complete, fully operational, safe, secure, sound
- Gas isolation valve and handle are clearly identifiable and operational

Unacceptable

Figure 2 and Figure 3

- There is inadequate gas supply for the number of appliances
- Gas isolation valve cannot be turned off or the open and closed positions are not clearly visible
- There is a leak in the gas system or a strong smell of gas
- Gas mains, meter or cover are not securely fixed
- Gas bottles seismic restraint does not meet building code
- Gas bottle does not have a LAB number or is out of test date
- Flexible connection hoses have cracks or deterioration or have not been replaced for more than 5 years
- Residue in condensate trap exceeds 2ml to3 ml or has not been drained for more than 2 years
- Changeover valves and regulators have not been checked for more than 10 years
- Gas bottle is located in a poorly ventilated area, under stairs, in the subfloor, adjacent to doors, windows, air vents, flue terminals
- Combustible material is within 1 meter of the gas bottle
- Gas bottle is not easy for a person to access for gas delivery.

Figure 1

Figure 2

Figure 3

72.2 Gas Water Heater

Purpose: To provide a hot water system.

Description

Gas continuous flow hot water systems heat the water on demand using a gas burner as the water passes through the heater coil, this allows for an endless supply of hot water. The unit is typically mounted on an exterior wall which allows for open ventilation, the hot water delivery pipe-work on the exterior and underfloor of the house needs to be lagged.

Gas hot water storage cylinders use a gas flame to heat water and can run on Natural Gas or Liquefied Petroleum Gas. Hot water is retained within an insulated cylinder and is thermostatically controlled to maintain the set temperature. Gas hot water cylinders can be located internally or externally, are required to be externally flued or ventilated if within a confined area and suitably seismically restrained.

Acceptable

Figure 1 and Figure 2

- Isolation valves are fitted to hot and cold supply pipes
- Well ventilated and securely fixed unit.

Figure 1

Figure 2

Unacceptable

Figure 3

- There is leaking pipework, valve or cylinder
- Unit seismic restraint does not meet building code
- There is no tempering valve fitted or it is not adjusted to deliver the correct outlet temperature
- Hot water pipe not lagged
- Isolation valves missing or not working
- Cylinder not externally venting.

Figure 3

72.3 Gas Space Heater

Purpose: To provide space heating.

Description

A gas heater can run on Natural Gas or Liquefied Petroleum Gas. Gas heaters typically require electricity for ignition, to run the fan and for electronic controls, are flued to the building exterior and have suitable heat shields to protect adjacent surfaces.

Acceptable

Figure 1

- Gas heater is complete, fully operational, easy to use, safe, secure, sound
- Gas heater is flued externally
- Element flame is crisp, quiet and blue.

Unacceptable

Figure 2 and Figure 3

- There is leaking pipework, a smell of unburnt gas
- Heater is not easy to operate
- Combustible material is within 1 metre of the gas heater
- Heater is not fixed securely in place
- Heater is not flued externally or the flue is leaking or obstructed
- Heater electrical supply is not hard-wired
- Heater ignition or controls are not labelled, are damaged or missing
- Heater burn element is damaged
- There is a yellow coloured flame or black soot
- Heat shields are damaged or missing.

Figure 1

Figure 2

Figure 3

72.4 Gas Range

Purpose: To provide cooking and grill functions for food preparation.

Description

A gas range is a free standing appliance with a gas element cook top and gas element oven, and can have an electrical supply for ignition and oven light or an inbuilt piezo ignition system. The gas range is supplied with two oven racks, a grill tray, an oven tray and is fitted with an anti-tip safety device and a safety chain.

A gas hob is a surface mounted cook top with gas fired heating elements, pot holders and controls.

Any wall or other surface next to the gas range or gas hob is protected from heat and cooking residue.

Acceptable

Figure 1

- Gas range or hob is complete, fully operational, safe and secure
- Gas range or hob is clean and in good condition
- Flame is blue, crisp and quiet.

Figure 1

Unacceptable

Figure 2 and Figure 3

- Ignition or gas elements faulty or not working
- Control knobs faulty or not labelled or no heat indicators
- Cooktop pot holders or burner plates missing or damaged
- Oven door not closing or does not seal when closed
- Oven door handle is missing or not easy to operate safely
- Anti-tip device or pin is missing or does not prevent the range from falling over
- Safety chain is missing or does not prevent damage to the gas supply line
- Oven racks or trays are missing or do not fit
- Surface oven lining cannot be easily cleaned or is corroded
- There is a yellow coloured flame or black soot
- Heat shields to the wall are damaged or missing.

Figure 2

Figure 3

74 Liquid disposal

74.1 Rainwater Spouting

Purpose: To manage rainwater shed from the roof, and to direct it to a rain water storage system, soak pit or local storm-water system.

Description

Spouting or guttering is a channel which collects and diverts rainwater shed from the roof.

External gutters suspended from the eaves below the edge of the roofing material are made of galvanised steel, copper, painted aluminium or PVC.

Concealed gutters located between the fascia and the rafter ends and are not visible, have lower falls and a higher risk of water entering the building if a blockage occurs.

Valley gutters manage water between intersecting roof planes, are made of steel or butynol.

Internal gutters where the roof planes intersect over an internal part of the building are made of butynol over plywood and fall towards a rainwater head on the perimeter of the building. The gradient and capacity of the gutter is critical as heavy rainwater flows or blockages will cause water to flow inside the building. A rainwater head and scupper is used to connect an internal gutter to the downpipe.

Downpipes collect rain water from the gutter and direct it into a disposal or catchment system.

Acceptable

Figure 1

- Gutters and downpipes are secure and sealed
- Gutters and downpipes have adequate fall to effectively manage rainwater disposal.

Unacceptable

Figure 2 and Figure 3

- Gutters or downpipes are warped, corroded, have holes, are leaking or blocked
- Outer edge of the gutter is higher than the inner edge
- Gutters do not fall towards the down pipe or gradient is insufficient
- There is evidence of water ponding
- Gutter and downpipes are not securely fixed to the fascia or building
- There is accumulation of debris, leaves, balls or other rubbish.

Figure 1

Figure 2

Figure 3

74.2 Vent Pipe

Purpose: To manage the intake of air into and out of the sanitary system.

Description

The vent for the soil pipe allows air to pass through the drainage system to prevent a vacuum building up when the toilet is flushed.

The vent is typically a PVC stack that extends from the drain connection up past the roof. Some older homes have an external 4" Cast Iron stack.

Some vent pipes are concealed in the wall and can only be seen where they connect by the discharge pipe, directly behind the toilet and where they exit on the roof.

An acceptable alternative is an air admittance valve, generally installed 800mm above ground level.

Acceptable

Figure 1 and Figure 2

- Vent pipe is secure and sealed
- Vent pipe effectively manages sewerage odour.

Figure 1

Figure 2

Unacceptable

Figure 3

- There is a detectable sewerage odour from sewer pipes
- Vent pipe penetration is not weathertight or too short
- Cast iron pipes are excessively rusted
- Vent pipe joints are not secure or leak
- Vent pipes are not securely fixed in place.

Figure 3

74.3 Gully Trap

Purpose: To manage the discharge of waste water from sanitary fixtures.

Description

A gully trap receives the discharge from waste water fixtures such as the bath, shower, hand basin, kitchen sink and laundry tub. It connects to a suitable sewerage or septic system. Gully trap has an air trap to block the venting of foul air from the sewer system to the atmosphere.

Gully traps are made of concrete with iron grate, or PVC with a matching grate. The gully trap provides a point at which the foul water can overflow and the drain can be unblocked in the event of a drain blockage.

Acceptable

Figure 1 and Figure 2

- Gully trap and grate lid are intact and sound
- Gully trap effectively manages sewerage odour.

Unacceptable

Figure 3 and Figure 4

- Gully trap or grate is missing or damaged
- Grate or lid does not fit snugly onto the gully trap
- Gully trap or grating is obstructed or blocked
- Foul odours or gases are emanating from the gully trap
- Gully trap is not sitting above ground level.

Figure 1

Figure 2

Figure 3

Figure 4

74.4 Sewerage

Purpose: To manage the disposal of foul water.

Description

The internal plumbing sanitary system connects to a sewerage system.

A mains sanitary sewer discharges to the Local Authority mains sewerage system, where waste is reticulated back to waste treatment plants. Materials used for pipes include cast iron, concrete, steel, uPVC, cement- lined ductile iron and copper. Components may include vents, access points for inspection and maintenance, rodding and larger access chambers.

A Septic tank is a waste management system, used where there is no public foul water connection available. Domestic wastewater is discharged to a septic tank where suspended matter and solid waste settles and is decomposed by anaerobic bacterial action within the sludge. An outlet from the septic tank discharges the treated water to a soakage field. A septic tank is pumped and cleaned when the total depth of sludge and scum exceeds one third of the liquid depth of the tank.

Acceptable

- Sewerage system is secure and effectively manages foul water disposal
- Septic tank system is intact, stable and in good condition.

Unacceptable

Figure 1 and Figure 2

- Gully traps or toilets 'backing-up' or not flushing clear
- There is the presence of moist, soggy ground or a consistent foul water smell
- Access points, hatches or lids are broken or missing or cannot be secured
- Septic tank is full or sludge and scum solids fill the tank and overflow to the soakage field
- Septic tank is damaged, cracked or leaking
- Septic tank outlet filter or pipe work is clogged, damaged or missing
- Septic tank system has biological failure from chemical poisoning
- Septic tank system has power outage causing cessation of pumps or aerators
- Septic tank system alarm, blower or control box is not functioning
- Septic tank irrigation system is damaged or has uneven distribution
- There is stormwater entering the septic tank system.

Figure 1

Figure 2

74.5 Drainage

Purpose: To manage the disposal of stormwater and groundwater.

Description

Water runoff from the roof and hard surfaces is collected and directed to soak holes, rainwater storage tanks, or to the local authority stormwater system directly or from the road side curb.

Acceptable

Figure 1 and Figure 2

- Drainage system effectively manages stormwater runoff from the roof
- Drainage system effectively manages groundwater runoff from the driveway and pavement.

Figure 1

Figure 2

Unacceptable

Figure 3 and Figure 4

- Overflowing pipes, tanks or drainage systems
- Broken pipes or disconnected joints, cracked and broken traps
- Down pipes discharge directly on to the ground or hard surface
- There is water collecting or being discharged under the building
- There is the presence of erosion or ponding.

Figure 3

Figure 4

75 Solid Fuel Heating

75.1 Solid Fuel Heater

Purpose: To provide space heating.

Description

A Solid Fuel Heater can use wood or coal or pellets as its fuel and can be a free standing unit or inserted into an existing open fire cavity. The firebox is lined with firebricks and fitted with a stainless steel flue, a sealable door, a panel surround and a controllable vent operated by a lever on the front of the unit to regulate air entering and leaving the firebox. The unit and flue is seismically restrained and sits on a fire proof plinth or hearth surrounding or protruding from the front of the unit.

Wood burners are designed to use wood only. Wood burners use combustion air from the top with the wood fuel burning from the top downwards. Wood fuel can sit and burn effectively on a flat base, hence wood burners will have a small grate or no grate at all.

Multi-fuel burners are designed to use wood or coal, which burns at a higher temperature than wood. Multi-fuel burners require combustion air from underneath the fuel load, hence have an open grate feature to let the air through to the fuel.

Pellet burners are designed to use specially manufactured pellets, made from recycled waste such as wood shavings and sawdust. The pellets are loaded into a hopper in the unit and automatically screw fed into the fire. There is a heating element, electronic controls, suction and convection fans and a combustion chamber and exhaust flue. Heat output is controlled by a thermostat.

Acceptable

Figure 1

- Solid Fuel Heater is complete, fully operational, easy to use, safe, secure, sound
- Solid Fuel Heater is flued externally
- Solid Fuel Heater is clean and in good condition.

Unacceptable

Figure 2 and Figure 3

- Solid Fuel Heater does not meet Local Authority emission standards
- Seismic restraint does not meet building code
- Combustible material is within 1 meter of the Solid Fuel Heater
- Heat shields or guards are damaged or missing
- Fire proof plinth or hearth is damaged or there is the presence of heat damage to adjacent surfaces
- Fire box is dirty, cracked, split or corroded
- Door does not close fully or door seal is missing
- Damper controls or door handles are not insulated or not easy to operate
- Screw feed system is not functioning
- Glass in the door is cracked, missing or broken
- Flue is dirty, loose, damaged, leaking or blocked
- There is corrosion on the flue cowl or fastenings.

Figure 1

Figure 2

Figure 3

75.2 Solid Fuel Brick Fire Place

Purpose: To provide space heating.

Description

A brick fireplace is a masonry structure that contains a firebox open to the room, and a chimney. The firebox is lined with fire bricks, has a fire-grate and an ash-pan. Wood and coal are the usual fuels.

Acceptable

- Firebricks and mortar are complete, safe, sound
- Fireplace and chimney are clean and in good condition.

Unacceptable

Figure 1 and Figure 2 and Figure 3

- Brick fireplace does not meet Local Authority emission standard
- Chimney is dirty or blocked or is not braced
- Firebricks are missing, damaged, cracked or loose
- Mortar is missing or deteriorated
- Facia or lintel is damaged or separating from the front of the fire place cavity
- Chimney or hearth is damaged or there is the presence of heat damage to adjacent surfaces
- Grate or ash pan is damaged or missing.

Figure 1

Figure 2

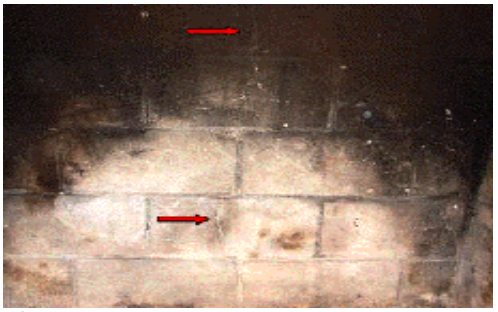

Figure 3

75.3 Wetback

Purpose: To supplement the heating of water in the hot water system.

Description

Wetback water heaters are integrated into a solid fuel heater and connected to the hot water cylinder. Heat from the combustion process is used to heat water jackets installed within the firebox and the heated water circulates to the hot water cylinder. Pipework between the cylinder and the wetback is lagged.

Acceptable

- Wetback water booster and pipe work is fully operational and safe
- Wetback provides adequate hot water supply.

Unacceptable

- Hot water supply is inadequate
- Wetback or pipework is leaking or damaged
- Pipework is not lagged
- There are valves or constraints in the inlet or outlet path between the wetback and the hot water cylinder.

Figure 1

Figure 1

Figure 2

76 Ventilation and air-conditioning

76.1 Heat Pump

Purpose: To provide space heating.

Description

Heat pumps utilize refrigeration technology to extract heat from the outside air and transfer it inside. They can be used for cooling and heating. They are a 2-part or split system with an indoor inverter and an outdoor compressor, both requiring electrical supply.

The inverter unit is typically wall mounted, has controls, heating coils and fan for distributing heat and an air-filter to keep dust off the heating coil fins. When in cooling mode condensation may form. The inverter unit is fitted with a condensate tray to remove excess moisture and safely discharge it outside to the ground.

The compressor unit contains a compressor, motor and a fan and cooling/heating coils. It is secured to a concrete pad outside, with anti-vibration mounts. The compressor unit requires good air movement in, out and around the unit. The compressor unit is fitted with a condensate drain to safely discharge excess moisture to the ground.

Hazard

Although the likelihood is low, air borne water droplets from condensate or overflow pipes may contain legionella bacteria which if inhaled via drops or mist can cause legionellosis, a serious respiratory illness.

Acceptable

Figure 1

- Compressor unit and inverter unit are secure, fully operational and safe
- Condensate drains discharge to ground safely
- Filters are clean
- Wall penetrations for piping are sealed.

Figure 1

Unacceptable

Figure 2

- Compressor unit is loose or does not have adequate anti-vibration mounts or is damaged
- Compressor unit is not mounted on a hard level surface
- Compressor unit air intake/exhaust is dirty or does not have 500mm clearance from obstruction
- Inverter unit is loose or is damaged
- Inverter unit is covered or does not have 150mm clearance from obstruction
- Filters are clogged or dirty
- Inverter unit condensate tray is missing or does not drain
- Condensate drain is able to form air-borne droplets or discharges over a path
- Capping for pipe work is missing or damaged, or pipe work is not protected
- Wall penetrations for piping are not weathertight
- Electrical supply to compressor or inverter is damaged.

Figure 2

76.2 Bathroom Extract

Purpose: To extract moisture, odours and stale air.

Description

An extract fan system comprises an intake grille, extractor fan, ducting and exterior louvres or cowling.

An integrated unit mounted through an exterior wall or window has automatic gravity louvres or fixed louvres to prevent rain and wildlife entering the building. Ducted fans have ducting from the intake point to the exterior and typically use flexible aluminium duct.

Acceptable

Figure 1 and Figure 2

- Extract fan effectively manages the removal of water vapour from the room
- Extract fan is complete, fully operational, easy to use, safe, secure, sound
- Extract fan is sealed at wall penetrations
- Extract fan is clean and in good condition.

Figure 1

Figure 2

Unacceptable

Figure 3

- Extract fan is dirty or damaged
- Extract fan is vented into the roof cavity or the subfloor or is not vented to the exterior
- Ducting is loose, damaged or compressed
- Switch is not easy to operate
- Extract fan, louvres or cowling are loose or not weathertight
- Exterior grilles that are dirty, obstructed, damaged.

Figure 3

76.3 Rangehood Extract

Purpose: To extract moisture and cooking odours.

Description

A rangehood is mounted over a stove and consists of an extractor fan, filters, ducting and a light. There are two types of kitchen rangehoods, external venting and re-circulating type.

External Venting Type draws air through a washable filter and exhausts it outside.

Re-circulating Type draws air through a washable filter then a carbon filter that absorbs odours, before it is re-circulated into the kitchen. Carbon filters can be cleaned or replaced when they no longer function.

Acceptable

Figure 1

- Rangehood extract effectively manages the removal of moisture and odours from the room
- Rangehood is complete, fully operational, easy to use, safe, secure, sound
- Filters are clean and washable.

Unacceptable

Figure 2 and Figure 3

- Rangehood is loose or mounted height is a head hazard
- Rangehood is not vented to the exterior
- Filter is dirty, obstructed, damaged
- Isolation switch, lights or switches are missing, damaged or not easy to reach or operate safely.

Figure 1

Figure 2

Figure 3

76.4 Trickle Extract

Purpose: To extract condensation.

Description

Trickle extract is a passive ventilation system with purpose-made adjustable window vents, grilles or louvres or a vertical duct from the ceiling space to the exterior typically through the roof.

Acceptable

- Trickle extract system effectively manages the removal of moisture from the room
- Trickle extract intakes, vents, grilles or louvres are fully operational, secure and sound
- Trickle extract system is clean and in good condition.

Unacceptable

- There is no secure passive ventilation
- Trickle ventilation intakes, vents, grilles or louvres are dirty, loose, damaged, obstructed or not weathertight.

Figure 1

Figure 1

77 Electrical

77.1 Mains

Purpose: To provide a safe power supply connection to the property.

Description

Electricity is supplied to the property via an underground or overhead mains supply cable. The supply cable has an insulated anchor attached to the building and the cable is connected in a junction box.

Acceptable

Figure 1 and Figure 2

- Cable is firmly attached at each end
- Overhead cable is insulated and safe
- Insulated anchor and covered junction box
- Clearly visible “live wires” signage.

Figure 1

Figure 2

Unacceptable

Figure 3

- Overhead cable is under 5 meters above ground or is not clear of trees or other obstruction
- Underground cable is not protected above ground by conduit
- Cable insulation is degraded
- Anchor has degraded insulation, is loose or cover is rusted
- Cable is not clearly marked at entry or exit points
- Cable is exposed at the junction box
- Junction box is damaged, loose or open.

Figure 3

77.2 Meter Box

Purpose: To maintain a safe and metered power supply to the property.

Description

The Main Meter Box is commonly mounted on an external wall, with a cover and a vision panel for meter reading. It is the first point of connection for the mains supply cable, and houses the main supply meters and main isolating switch for the building.

The Main Meter Box contains the main isolating fuse and switch to the house. It can be separate to the main distribution board or combined with an external distribution board.

Acceptable

Figure 1

- Meter box is secure, electrically safe and sound
- Meter box has a clear vision panel.

Figure 1

Unacceptable

Figure 2 and Figure 3

- Meter box is not firmly fixed to the wall
- Meter box is not weathertight
- Meter box cover is damaged or loose
- Cover is missing or cannot be secured
- Vision panel is missing, damaged or the meter is not legible through the panel.

Figure 2

Figure 3

77.3 Distribution Board

Purpose: To provide an isolation point for all electrical outlets.

Description

Distribution boards can be separate or combined with the meter box. The distribution board divides the main electrical supply into sub-circuits for lighting, power points, hot water heating, and the range.

The distribution board protects individual sub-circuits with fuses, circuit breakers, residual current devices or miniature current breakers. The board also provides an isolating point for circuits, and earth and neutral connection points.

Acceptable

Figure 1

- Distribution board is complete, easy to use, electrically safe and secure
- Clearly labelled circuits
- Distribution board is in good condition.

Figure 1

Unacceptable

Figure 2 and Figure 3

- Distribution board cannot be easily reached or is damaged
- Cover is missing or cannot be secured
- Fuses, circuit breakers, residual current devices or miniature current breakers are not labelled
- Distribution board is fitted with over capacity fuses or circuit breakers.

Figure 2

Figure 3

77.4 Earth Electrode

Purpose: To provide a low resistance path from the metal body of an appliance to the earth.

Description

Connection to earth is achieved by driving an earth electrode into the ground. All non-current-carrying metal parts of equipment are connected to a common earth at the main board. The main board is connected to an earth electrode, which will provide a return path for electrical fault currents.

Earth electrode types are non-ferrous or stainless steel 12mm rod, galvanised steel 16mm rod and galvanised iron 20mm pipe.

The electrode will have an earth wire clamped to it by using a suitable brass clamp and a permanent label is securely fitted at the connection point.

Acceptable

Figure 1

- Earth electrode and cable is secure and sound
- Clearly labelled EARTHING CONDUCTOR-DO NOT DISCONNECT.

Figure 1

Unacceptable

Figure 2

- Cable and earth electrode connection is not continuous
- Label at electrode is missing or not legible
- Pipes conveying water, gas or flammable liquids or materials used as earth electrodes.

Figure 2

77.5 Earth Bonds

Purpose: To provide protection from electric shocks.

Description

Earth bonding reduces the risk of electrocution from fault currents by connecting all exposed metal fittings in the property to a common earth at the main distribution board.

Earth bonding consists of a green or yellow and green cable that is connected with a metal clamp to the metal surfaces. Metal sinks and bench tops, metal hand-basins, metal water and gas pipe work conduct electricity and are connected to earth by a bonding system. If a piece of plastic replaces a section of metal pipe, a permanent earth conductor connects the two sections of metal pipe to fully isolate and earth both live parts.

Acceptable

Figure 1

- Earth bonding system connects all metal components to earth.

Figure 1

Unacceptable

Figure 2

- Metal component is not isolated from live parts
- Metal component is not connected to an earth bond
- Earth bond is not continuous.

Figure 2

77.6 Electric Water Heater

Purpose: To heat and store hot water.

Description

Electric hot water cylinders use an electric element to heat the water. Heated water is stored in the hot water cylinder at a thermostatically controlled temperature set to 60°C to prevent the growth of legionella bacteria. The thermostat and element are contained behind a sealed anti-tamper access panel cover. Electric hot water cylinders have an open ended vent pipe and for mains supplied systems a pressure relief safety valve can be fitted in conjunction with a cold water expansion valve.

Hot water cylinders marked as 'A grade' or 'MEPS Approved' are insulated. All other hot water cylinders are 'wrapped' for extra insulation. Hot water cylinders are seismically restrained.

Acceptable

Figure 1

- Electric hot water cylinder is fully operational, electrically safe, secure and sound
- Electric hot water cylinder provides adequate hot water supply.

Unacceptable

Figure 2 and Figure 3

- There is no hot water or inadequate supply
- Hot water cylinder, valve or pipework is leaking or damaged
- There is water over flowing from the vent pipe on the roof or from the pressure relief valve
- Hot water cylinder not externally venting
- Hot water cylinder seismic restraint does not meet building code
- Electric access panel cover is missing or not sealed
- Hot water cylinder is not insulated
- There is no tempering valve fitted or it is not adjusted to deliver the correct outlet temperature
- Hot water pipe not lagged
- There is no overflow tray or overflow does not flow to exterior drain.

Figure 1

Figure 2


Figure 3

7.7 Electric Space Heater

Purpose: To provide space heating.

Description

Electric panel heaters have a thermostat, an on/off switch, a light indicating on/off, and a heat setting control. Control features are clearly labelled and can be integrated as a single control.

The heater is securely fixed to a wall and the electrical supply is hard-wired.

Electric panel heaters that produce radiant heat are typically located on the coldest wall in the living room. Electric panel heaters that produce convective heat are typically located such that the heat is directed towards the coldest wall.

Acceptable

Figure 1

- Electric panel heater is fully operational, easy to use, electrically safe, secure and sound
- Clearly labelled controls
- Electric panel heater is clean and is in good condition.

Unacceptable

Figure 2 and Figure 3

- Heater is not firmly fixed to the wall
- Combustible material is in contact with heater
- Controls are not easy to reach or operate safely, or not clearly labelled
- Heater air grills are obstructed or dirty
- Electrical cable or power supply has been damaged or is not hard-wired
- There is the presence of scorching or heat damage.

Figure 1

Figure 2

Figure 3

77.8 Electric Range

Purpose: To provide cooking and grill functions for food preparation.

Description

An electric range is a free standing appliance with electric cook top elements and electric element oven. The range is connected to the electrical supply, typically with a 32 amp plug complete with 1.5m long lead.

An electric wall oven is a joinery cavity mounted electric element oven.

An electric hob is a surface mounted cook top with radiant, tubular or solid heating elements, pot holders and controls.

An oven has cooking and grill functions, an oven light and heat indicators on the control switches.

An electric range or electric wall oven is supplied with two oven racks, a grill tray, an oven tray and is fitted with an anti-tip safety device and a safety chain.

Any wall or other surface next to the electric range or electric hob is protected from heat and cooking residue.

Acceptable

Figure 1 and Figure 2

- Electric range or oven or hob is complete, fully operational, electrically safe, secure
- Electric range or oven or hob is clean and in good condition.

Unacceptable

Figure 3 and Figure 4

- Elements are faulty
- Control knobs faulty or not labelled or no heat indicators
- Cooktop pot holders or plates missing or damaged
- Oven door not closing or does not seal when closed
- Oven door handle is missing or not easy to operate safely
- Wall oven is not firmly fixed into the joinery cabinet
- Anti-tip device or pin is missing or does not prevent the range from falling over
- Oven racks or trays are missing or do not fit
- Surface or oven lining cannot be easily cleaned or is corroded
- Heat shields to the wall are damaged or missing
- Wiring is exposed or damaged.

Figure 1

Figure 2

Figure 3

Figure 4

77.9 Light Fitting

Purpose: To provide and control artificial light.

Description

Artificial lighting is to enable safe movement in the absence of natural light.

Acceptable

Figure 1 and Figure 2

- Light fittings are fully operational, secure and electrically safe
- Illumination levels are safe.

Unacceptable

Figure 3 and Figure 4

- Light fittings are faulty or damaged
- Light fitting is not firmly fixed in place
- Switches are faulty or loose or cracked
- Wiring is exposed or damaged
- Light levels are inadequate for safe path
- Emergency exit signs are not illuminated
- There are polychlorinated biphenyls in fittings.

Figure 1

Figure 2

Figure 3

Figure 4

77.10 Power Point

Purpose: To provide switched electrical outlets for the connection of appliances.

Description

Power points connect the electrical distribution system to fixed and portable electrical appliances.

Power points are typically single or double switch units. Wet areas have a residual current device outlet or residual current operated circuit breaker with over current protection outlet and test button.

Acceptable

Figure 1

- Power points are fully operational, secure and electrically safe
- Power points are safe to use.

Unacceptable

Figure 2 and Figure 3 and Figure 4

- Power point is faulty or damaged
- Power point not firmly fixed to the wall
- Electrical appliances are not easy to operate safely
- Power leads are an electric shock or trip hazard
- Residual current outlet test button does not disconnect the power when pressed
- There is the presence of scorching.

Figure 1

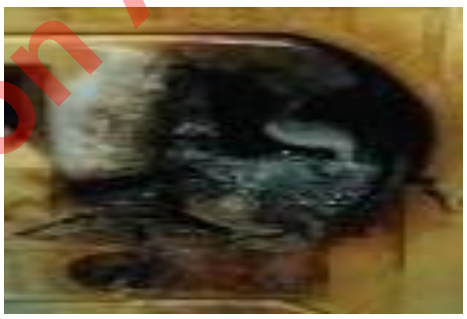

Figure 2

Figure 3

Figure 4

77.11 Data Outlet

Purpose: To provide a telecommunications point for the connection of a telephone or other telecommunications devices.

Description

Data outlet is the point that provides connection to a telephone or other telecommunications device inside the building.

Acceptable

Figure 1 and Figure 2

- Data outlets are fully operational, secure and electrically safe
- Data outlets are safe to use.

Unacceptable

Figure 3 and Figure 4

- There is no data outlet
- Data outlet is faulty or damaged
- Data is not firmly fixed to the wall
- Data outlet is not easy to access safely
- Cabling is exposed or loose or damaged.

Figure 1

Figure 2

Figure 3

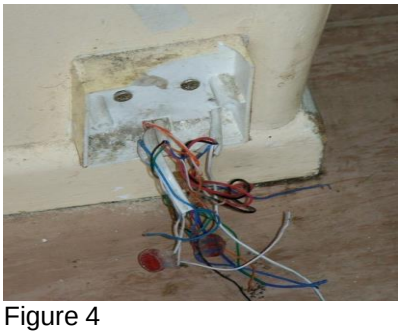

Figure 4

77.12 Hardwired Smoke Alarm

Purpose: To provide smoke detection warning.

Description

Hardwired Smoke Alarms are mains powered and provide an early smoke detection warning to occupants by emitting a high pitched sound once smoke is detected. Smoke cannot be detected in dead air space.

Hardwired smoke alarms may have a backup battery in the control panel. Smoke Alarms have a test button and a hush button to allow nuisance alarms to be silenced.

Acceptable

- Smoke alarm is securely mounted and is clean
- Smoke alarm is fully operational.

Figure 1

Unacceptable

- Smoke alarm is faulty or missing
- There is a wall or other obstruction within 300 mm of the smoke alarm
- Smoke alarm is not firmly fixed to the ceiling or is damaged
- There is no response to the test button
- There is dirt or paint on the surface or inside the fitting
- Back up battery in the control panel is faulty or missing.

77.13 Telecommunications Supply

Purpose: To provide a connection to the New Zealand telecommunications network.

Description

A telecommunications connection for telephone and data may consist of a standard copper connection or an ultrafast broadband fibre connection or a combination of both.

The telecommunications supply from the street is a low voltage cable via an existing pole or underground duct to the property. This is connected to an External Termination Point which is a small junction box on the exterior of the building and is typically the demarcation point between Telecom's ownership and the Housing New Zealand's responsibility.

From the External Termination Point, the copper network connects to a master jack point in the building and the fibre network connects to an Optical Network Terminal or Internal Network terminal, the starting point for the phone and broadband services.

Acceptable

- Data and telephone connection is fully operational, secure and sound.

Unacceptable

- There is no data and telephone connection
- Line or connection points are faulty
- Junction box is damaged, loose or open.

Figure 1

Figure 1

8 EXTERNAL
82 Asphaltic Paving
82.1 Asphalt

Purpose: To provide a sealed hard surface.

Description

Hard surfaces are paths, driveways, patios and parking areas around the property. Asphalt, tarmac and hot mix are terms for hard surfaces sealed with a bituminous continuous cover.

Acceptable

Figure 1

- Path is easy to use and safe
- Driveway is safe and structurally sound.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Driveway or path hard surface is missing or inadequate
- Surface presents a tripping or slipping hazard (e.g. greater than 15mm)
- There is ponding or excess water on the surface
- Surface is damaged, broken up or cracked
- There is the presence of erosion of the substrate
- There are weeds growing through the surface
- There is moss or lichen growth on the surface.

Figure 1

Figure 2

Figure 3

Figure 4

83 Landscaping

83.1 Lawns, Planting and Trees

Purpose: To provide improvement of the natural features of a property.

Description

Lawns are easy to cut and planting is free of noxious weeks such as privet. Planting and trees are located for roots and foliage to be clear to buildings, foundations, footpaths, driveways and fences.

Acceptable

Figure 1

- Lawns, planting and trees are safe and easy to maintain.

Unacceptable

Figure 2, Figure 3 and Figure 4

- Lawn is damaged or uneven
- Planting is over grown
- There is the presence of spines, thorns, poisonous or noxious weeds
- There is planting covering the building
- There is a large tree shading the building or clothes line
- Trees or planting blocks out light from windows
- Paths or driveway obstructed by planting.

Figure 1

Figure 2

Figure 3

Figure 4

84 Fencing

84.1 Fences

Purpose: To define property boundaries, to provide privacy and a secure area for children.

Description

Fencing can be timber or metal or post and wire. Fences erected with palings typically have the palings facing the public side of the fence. Wing fencing is used when only the rear of the section is fenced.

Acceptable

Figure 1

- Fencing is complete and structurally sound
- Fencing is safe and in good condition.

Unacceptable

Figure 2 and Figure 3 and Figure 4

- Fence is not stable or upright
- Fence has deteriorated from rot or rust
- Fence structure or infill panels are damaged or missing
- Fence has sharp tops or spikes or verticals that protrude above the top rail
- There is excessive moss or lichen.

Figure 1

Figure 2

Figure 3

Figure 4

84.2 Gates

Purpose: To control access to secure the property.

Description

Gates can be single hinged gates or split gates and can be located along boundaries or within the property when used to create secure areas. Gates used to create secure areas have a self-closing gate with a self-latching mechanism.

Acceptable

Figure 1 and Figure 2

- Gates are structurally sound, easy to operate and secure
- Gate posts are structurally sound.

Unacceptable

Figure 3 and Figure 4

- Gates do not open and close easily
- Gates or hinges are damaged, misaligned or missing
- Gates do not latch closed
- Gates are rusty or rotten
- Latches are not safely positioned.

Figure 1

Figure 2

Figure 3

Figure 4

84.3 Clothesline

Purpose: To provide for drying washing outdoors.

Description

Clotheslines can be Rotary or Pull out or Retractable or T bar type. Clotheslines are mounted on independent posts with a hardstand and hard surface from the building to the clothesline. Clotheslines are positioned for clothes drying.

Acceptable

Figure 1 and Figure 2

- Clothesline is fully operational, safe and structurally sound
- Clothesline effectively manages the drying of washing.

Unacceptable

Figure 3 and Figure 4

- Line is inadequate for the wash load
- Clothesline is shaded by planting, fences or buildings
- Clothesline is not firmly fixed in place
- Clothesline is damaged or not easy and safe to use
- Lines are loose, frayed, rusty, or leave marks
- Hardstand or path are missing or inadequate.

Figure 1

Figure 2

Figure 3

Figure 4

84.4 Letter Box

Purpose: To identify the property and for mail delivery.

Description

The letter box is a weathertight receptacle to receive mail up to the size of A4. The letter box can be freestanding, mounted on a fence or wall, or a door slot. The letter box is lockable.

Where there are multiple dwelling units at a property location each unit is individually numbered as close as practical to the front door. Property identification is legible from the street for emergency responders, postal staff and members of the public.

Acceptable

Figure 1

- Letter box is fully operational, secure and sound
- Property number is easy to identify from the street.

Unacceptable

Figure 2 and Figure 3 and Figure 4

- Letter box is not firmly fixed to a post or fence
- Letter box is not weathertight
- Property identification number is missing or illegible
- Letter box is too small or too big
- Letter box or support is damaged, rusty or rotten
- Letter box has protruding sharp edges or over length screws or bolts
- Letter box cannot be padlocked.

Figure 1


Figure 2

Figure 3


Figure 4

Void Scoping Guide: M-219

For the 2019/20 Financial Year Only

Effective from 2 December 2019

Version – 9

Kāinga Ora
Homes and Communities

Void Scoping Guide M-219

Contents

For existing Kāinga Ora – Homes and Communities properties

Note:

All previous *Scoping Guides*, specifications, and/or drawings are superseded.

As this document contains colour figures and tables, colour printing is recommended.

Document Control		
Document Name	**M-219 Void Scoping Guide** For Kāinga Ora properties for 2019-20 financial year	
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1. Introduction

Kāinga Ora- Homes Communities is to provide safe, healthy, fit-for-purpose and sustainable for people in need, for the duration of their need.

Heating interventions will be extending to the whole of house and are currently being finalised. In the meantime, where there is existing heating in bedrooms and other areas of the home identified, note on the scope and refer to the Healthy Homes Programme team.

2. Purpose

This *Kāinga Ora Void Scoping Guide (M-219)* is designed to provide guidance for contractors in compiling a site-specific scope of works that when completed will achieve the "Void Standard".

This guide defines how Kāinga Ora will achieve these goals for vacant properties, to ensure they have amenities and components that are appropriate for their intended use, in good working order, durable and cost-effective to maintain.

The resource provides for a range of component items and actions and their associated rates. The Contractor must select the appropriate items and actions from this range that are required in the circumstances (specific to the property and programme), to complete a scope that will be submitted to Kāinga Ora for approval.

Where relevant, the guide may also indicate component items and actions that are not to be included in a scope.

3. General guidance

This section provides general guidance notes for the contractor to ensure the property will achieve the appropriate outcome.

3.1 Health and Safety

While the worker is involved in scoping activities, they must, at all times, operate and comply with a work management system that:

- Meets all applicable legislative requirements.
- Manages the work and related risks that exist, or will be created as part of scoping works.

The Persons Conducting Business or Undertaking (PCBUs) (Kāinga Ora) and the Performance-based Maintenance Contractors (PBMC) have an overlapping duty to eliminate or minimise risks to workers and other people.

In meeting health and safety duties the PCBUs will, as far as reasonably practicable, consult, co-operate, and co-ordinate their activities.

Hazard assessment, surveys, or investigations attributed to the works being scoped should, as part of this process, identify those activities that have the potential to cause injury or illness to workers, customers, or others, so that controls can be identified as part of the work package.

Please note – Any Health and Safety issue requiring immediate response should be removed from this scope and treated as a separate urgent (URG) works order. These are to be advised to the Kāinga Ora Customer Services Centre on Ph. 0800 888 455 for Monday to Friday 8am-5pm or 0800 801 601 for outside those hours.

3.2 Supporting documentation

This *Kāinga Ora Void Scoping Guide (M-219)* should be read in conjunction with other Kāinga Ora PBMC reference material.

Current versions of the following documents will provide valuable information and context to assist the contractor in completing and submitting appropriate and accurate scopes.

All individuals undertaking a scope, contractors, trades-people, and associated parties should have copies and/or immediate on-site access to this information and should be working strictly in accordance with those instructions.

Table 1: Relevant resources for PBMCs

Reference Material		Purpose
ACM-200	*Amenity Condition Manual*	Provides guidance on what Kāinga Ora determines is an acceptable or unacceptable condition for specific componentry of a property.
M-360	*Kāinga Ora Supplier Code of Conduct*	Outlines Kāinga Ora's expectations with regard to on-site behaviour and conduct.
HS-213	*Kāinga Ora Asbestos Management and Control Policy*	Outlines Kāinga Ora's expectations with regard to the safe management and control of asbestos (as a hazardous material).
HS-214	*Kāinga Ora Lead-based Paint Management and Control Policy*	Outlines Kāinga Ora's expectations with regard to the safe management and control of lead-based paint.
M-215	*Maintenance and Programmed Work Specification*	Provides a detailed trade-by-trade description of how the relevant work must be undertaken.
M-216	*Kāinga Ora Method of Measurement*[†]	Provides instruction on how specific property features should be measured. The method of measurement is particularly relevant to scoping as it defines how to measure the quantity of specific material and/or quantum of work required under a specific work order.
M-217	*Building Materials Procurement Schedule*	Provides a full list of the materials and products (and associated costs) that Kāinga Ora procures under a national supplier agreement; these must be used when undertaking the relevant work.

M-218	*Schedule of Rates*	Provides a description of a particular maintenance activity and the associated cost.
M-242	*Insulation Inspection and Scoping Guide*	Provides instructions and guidance for Contractors in compiling a site-specific scope of works for insulation.
M-243	*Mechanical Extraction Scoping Guide*	Provides guidance for Contractors in compiling a site-specific scope of works for mechanical extraction and associated installation works.
M-244	*Curtain Scoping Guide*	Provides guidance for Contractors in compiling a site-specific scope of works for curtains and tracks.
M-245	*Heating Scoping Guide*	Provides guidance for Contractors in compiling a site-specific scope of works for closing off existing open fireplaces and, where required, reviewing and up-grading existing heating sources. This work is designed for selected Kāinga Ora properties to achieve compliance with the *Resource Management (National Environmental Standards for Air Quality) Regulations (2004)*.
M-323	*Customer and Contractor Agreement Form*	This form describes the process for securing customers' agreement for the Contractor to work on the property and to use specific facilities.
M-602	*Healthy Homes Scoping Guide*	Provides guidance for Contractors in compiling a site-specific scope of works for work covered under the *Residential Tenancies (Healthy Homes Standards) Regulations (2019).*

Please note:
All works are to be undertaken strictly in accordance with the *Building Regulations* (1992) and subsequent amendments, and all relevant New Zealand legislation.

3.3 Kāinga Ora contact details

Any questions regarding this programme or scope should be raised directly with the Regional Maintenance or Void Programme teams.

Any questions regarding this work programme or scope for a BUY-IN Acquisition should be addressed to the Acquisition Manager.

4. Void standard

When a property becomes vacant, or to be purchased as part of the BUY-IN programme, Kāinga Ora will use that opportunity to ensure the property is in a safe and healthy condition, is fit-for-purpose, and sustainable. This standard is defined as the Void Standard.

This Void Standard includes critical items required to meet the Lettable Standard; these are fundamental for the re-letting of Kāinga Ora properties to new customers. In addition, the Void Standard also contains upgrade components necessary to achieve fit-for-purpose housing in line with Kāinga Ora's *Asset Management Strategy*.

Key items under the Lettable Standard include health and safety checks, maintenance repairs, and general house cleaning. The nominated upgrade items deliver additional amenity and durability to properties to achieve the Void Standard.

The scoping tables provided herein provide a checklist for Contractors to follow when completing the Void scope (for the VSC work order). These tables will ensure the Void Standard is achieved before properties are re-let.

Where Kāinga Ora has Void Specialist teams, work under the Void Standard may, with Void Specialist approval, be completed within the six weeks following start of the tenancy.

Specific notes at the end of this document clarify further detail required as part of the tabled works.

These guidelines are specifically designed to provide guidance for Contractors, Kāinga Ora staff, and Stakeholders to help them understand the various items and actions required to achieve the Void Standard. It is intended primarily for low and medium density housing.

There are some exceptions where Kāinga Ora may have different requirements; these include:

- Buy-ins (via the Acquisition Programme)
- Community Group Housing (CGH)
- Home Lease Programme (HLP)
- Body corporates
- Apartments
- Properties identified for re-development, sale, or planned upgrade works.

Specific scoping instructions will be provided for these properties.

5. Index of void works

The *Kāinga Ora Void Scoping Guide (M-219)* is summarised below. A full description of these items is provided in the detailed scoping tables, which includes supporting references to the:

- *ACM-200: Amenity Condition Manual.*
- *M-218: Schedule of Rates.*
- *M-215: Maintenance and Programmed Work Specification.*
- Job codes.

Table 2: Void Scoping Guide content

6. Guidance for Kāinga Ora staff

6.1 Internal processes for Void Scoping

Many Kāinga Ora teams are involved in the void process and all must follow the agreed process, found on Atamai under *Manage Tenant Vacating*.

The primary roles involved with void work orders are:

1. **Tenancy Managers** (Where Void Specialists teams are not in place) - Create the void (VSC) work order that requests the contractor to scope the vacant property. They must include any special instructions in the work order where the vacant property is a Community Group Housing (CGH), Home Lease Programme (HLP), or properties identified for Sale or Redevelopment. There might also be special instructions for other vacant properties, for example apartment units in body corporate properties.

2. **Acquisition (BUY-IN) Delivery Team** – Create the void (VSC) work order that requests the contractor to scope the proposed property to be purchased by the Corporation.

3. **Asset Managers** – Confirm with the Tenancy Manager whether the vacant property will be re-let, and determine any special instructions that may be required. They also will be asked by the Regional Maintenance Team to approve high value void work orders.

4. **Regional Maintenance Team** – This team receives the scoped work order from the contractor and reviews it to see that the contractor has achieved the requirements of the Void Scoping Guide, before authorising. They check for incorrect job lines, e.g. repairs on fencing that is shared with private owners; or a gas inspection request that might already have a Preventive Maintenance Schedule. They also review all variation requests from contractors during the course of the work.

5. **Void Specialist** – Manage short term voids within the nominated regions (as per the Regional Maintenance Team).

7. Guidance for Kāinga Ora staff and contractors

7.1 Scoping notes

The Contractor is to address every nominated item within these tables to ascertain whether it is present, functioning, and meets an acceptable standard as defined by the *ACM-200: Amenity Condition Manual*.

If the item is present and acceptable then no further work is required. If the item is missing, not functioning, or in unacceptable condition, then the item is to be scoped for repair or replacement.

If an item is **not** included within the scoping tables below and any relevant document, it should not be scoped.

Contractors are to raise any issues or concerns regarding the application of the scoping tables on any property with a Kāinga Ora representative for clarification.

The contractor must have the power on at the property in order to carry out the scoping.

7.2 Significant property defects

Any significant property defects relating to structural integrity (obvious structural framing distortions or movements to interior and/or exterior lining, and/or foundation /piles) or cladding performance (weather tightness) must be brought to the attention of a Kāinga Ora representative at the time of scoping the vacant property.

7.3 Cost-effective solutions

Where there is an option to either repair or replace a component or item, the Contractor must identify where full replacement of the item is more cost-effective than repairing it, and propose replacement as part of the scope.

Proposed replacements shall be agreed with a representative from Kāinga Ora and included in the approved scope before replacement is undertaken.

If the proposed solution may also affect scopes for other work programmes, send relevant details to Kāinga Ora for consideration.

8. Detailed scoping tables

1.	Property Exterior	
1.1	**Safe External Paths & Driveways** Ensure external paths and driveways (only where the driveway is the only pedestrian access route) are in acceptable condition with no significant trip hazards – i.e. not greater then 15mm. **Note:** Allow for the use of concrete path grinding instead of replacement to remove trip hazards whenever possible.	**Job Code/s** YPV050 – 610 **ACM** 31.2 **MPWS** 3101
1.2	**Fencing and Gates** Ensure all existing fences and gates are complete and functioning well. Where faults are found with fencing, make good with minimum repair using like for like materials. Match existing fencing and finish wherever possible. Where gates require replacement, pool gates should be installed in the first instance. There may be situations where this is not possible due to the existing configuration; in these instances guidance shall be sought from the Void Specialist or Kāinga Ora's Maintenance	**Job Code/s** YFE050 – 850 YGT050 - 820 **ACM** 84.1 - 2

1.	Property Exterior	
	Supervisor. Existing fencing shall be brought into a condition that meets the standard of Kāinga Ora's *Amenity Condition Manual* but no additions or upgrades should be included on the void scope. **Note:** The driveway safety and boundary fencing works are undertaken through a separate programme and fencing upgrade works is not included within this scope.	**MPWS** 8430 & 8434
1.3	**External Storage** Ensure a functional storage space (garage, shed, or floor space) is present to provide for the storage of a lawn mower, bikes, etc. – pad-lockable provision is required for customer provided padlocks. If such storage is inadequate or absent provide the procured exterior storage shed in strict accordance with manufacturer's instructions and as per the detailed job code reference. Use: • A 1830(W) x 1530(D) x 1980(H) shed for properties of >3 bedrooms. • A 1530(W) x 1080(D) x 1830-1770(H) for <3 bedroom homes. Ensure these are placed at least 1.0m from the boundary. If there is insufficient room for this (e.g. terraced housing), then a smaller shed of 1530(W) X 785(D) X 1830-1770(H) may be more suitable. **Note** Wall panels must be securely fitted to the timber flooring in accordance with the manufacturer's instructions.	**Job Code/s** CMS715 - 720 **ACM** 42.5 **MPWS** 3820
1.4	**Clothes Line** Clothes line is present and fully functional. Where required, repair and replace with procured like-for-like products.	**Job Code/s** YCL100 – 500 **ACM** 84.3 **MPWS** 8434
1.5	**Overgrown Vegetation** Remove any unsafe trees and stumps, if location of the stump creates a trip-hazard (e.g. on a lawn but not within a garden area). Trim or remove all excess or over-grown vegetation, including hedging, shrubs, or trees that block significant sunlight into the house. Leave lawns in a mow-able condition and uneven hazards filled with top-soil and grass-seeded.	**Job Code/s** YMG300-580 **ACM** 83.1 **MPWS** 8320 & 8382
1.6	**Lawns** Mow lawns on scope approval and completion of works if required.	**Job Code/s** YMG230-300 **ACM** 83.1

1.	Property Exterior	
		MPWS 8320
1.7	**Remove Non-compliant Structures** Remove all non-standard Kāinga Ora structures, sheds, dog houses, tree huts etc. If required, repair the ground where these items were stored. Retain **one** working digital aerial and check that internal connections function. **Note** Contact a representative from Kāinga Ora for any questions about which items should be removed.	**Job Code/s** CAA100 CAA200 YCX500 YCX900–YCX950 **ACM** **MPWS**
1.8	**Letterbox and Numbering** Letterbox is present, fully-functional, and includes legible numbers. To avoid build up of junk mail while the property is vacant provide and fit nominated supplier "No Junk Mail" stickers. **Notes** a. Where there is a fence at the front of the property, use the new procured wall-mounted letterbox option. i. Locate on driveway fence or alongside the pedestrian gate. ii. Height to the base of the letterbox is to be 900mm - 1m above ground level. iii. One row of fixings is to be through the paling into a horizontal timber rail. iv. Install at 800mm - 1.2m (check) above ground level. b. Multi-boxes are to be in rows that are a maximum of 2 in height and spaced with 400mm gaps between. c. For buy-ins: if it is in good working order, leave the existing letterbox.	**Job Code/s** YLB310-330 **ACM** 84.4 **MPWS** 8434
1.9	**External Clean** ***Wall Claddings Wash*** Provide full exterior claddings wash (to areas where required) including claddings, base-boards, glazing, joinery, soffits, external surfaces of spouting and downpipes as per Job Code, but excluding roof(s). DO NOT WATER BLAST. ***Exterior Rubbish Removal*** Remove all rubbish, compost heaps, and debris from the exterior of the house, including the sub-floor. ***Common Area Rubbish Removal***	**Job Code/s** KCX100-320 YCX500-950 **ACM**

1.	Property Exterior	
	Clean, tidy, and remove rubbish from all common areas including shared driveways and access paths. ***Path Water Blast*** Water blast any moss or slime from paths. ***Deck Cleaning*** Use suitable products to gently remove any moss, mildew, and green build up. If necessary use hard brush to remove thoroughly. Rinse with a hose.	**MPWS**
1.10	**Ground Clearances** Where possible, ensure clearances at the base of external walls to ground / gardens meet minimum clearances set out in Clause 9.1.3 of the *New Zealand Building Code (NZBC) Acceptable Solution E2/AS1*. **Note** Contact a Kāinga Ora representative if these clearances cannot be reasonably achieved.	**Job Code/s** **ACM** **MPWS**

1.11	**Decks**
	If any of the following are present report to the Kāinga Ora representative:
	• The structural system does not meet legislative requirements (as indicated by):
	  ○ excessive structural movement; and/or
	  ○ water draining into the building where the deck is attached to the building.
	• Rot, mould, splitting, or deterioration to decking, bearers, joists or piles.
	• Structural connections are missing, loose, or corroded.
	• Cantilevered decks (i.e. structural deck joists which come through building envelope to support the deck).
	• Enclosed deck balustrades.
	• Membrane-type decking.
	For buy-ins: Any existing 19mm-thick deck that is in good working order should be left in place. Do not remove and replace with the 25mm.
		Job Code/s
		CLX700-800
		CSB100-650
		
		ACM
		43.5
		
		MPWS
		4337 & 4383

Table 3: Scoping table: Building envelope and structure

2.	Building Envelope & Structure	
2.1	**General Drainage** Undertake an external visual check around the perimeter of, and under, the dwelling for evidence of surface water from surrounding ground, paths, driveways etc. flowing under the building.	**Job Code/s** **ACM** **MPWS**
2.2	**Roof Leaks** Check visually both internally and externally (from the ground) for	**Job Code/s** RMS050

2.	Building Envelope & Structure	
	signs of roof leaks. Where there are any signs of leakage (e.g. water-stained or bubbled wall or ceiling linings, broken or missing roofing tiles etc.), instruct the nominated roofing Contractor to produce a roof report. Forward all roof reports to a Kāinga Ora representative. Any recommended remedial or new works will be as per the *Kāinga Ora Roof Repair & Replacement Scoping Guide (M-253)* and undertaken by a separate works order outside of the void works order.	**ACM** 43.1-3 44.1 **MPWS** 4311-4337 4422
2.3	**Spouting** 1. If the spouting system is not functioning correctly (e.g. there are signs of blockage or over-flowing), scope for clean-out and wash the entire spouting and water collection system (including all spouting, down-pipes, and drainage systems) to ensure the system is complete and functioning well, and is clear of plant growth or any other blockage. 2. Where required, replace sections of damaged down-pipes and/or spouting. 3. Check there is no stagnant water pooling in the spouting and repair/re-align where required. **Note** Two codes are available for cleaning spouting: i. Use PSP100 when all spouting requires cleaning on a free-standing house ii. Use PSP110 on smaller structures or if the property is a duplex or twin-unit; this is measured by the lineal meter.	**Job Code/s** PSP100-115 PDP100-300 PSP150-300 **ACM** 74.1 **MPWS** 7411
2.4	**Wall Cladding** 1. Scope for repair as required: visually check all exterior cladding for signs of significant damage, rot, or broken parts, and ensure it is functioning well. a. Where the damage requires extensive repairs (e.g. 10% or more of the cladding), advise the Healthy Homes Programme team. For external paintwork, refer to *M-240: Exterior Paint Scoping Guide*; ensure all patch-paint matches and blends into the existing paint finish. (DPE Codes).	**Job Code/s** CLX110–600 **ACM** 42 **MPWS** 3320-4282
2.5	**Sub-floor Access (Floor-access panels only)** Ensure all existing sub-floor access panels or doors are present,	**Job Code/s** CHX100-160

2.	Building Envelope & Structure	
	complete, and operational and with pad-bolt attached. (Locks provided by customer). **Note**: a. If no external access opening exists, scope for the installation of a sub-floor access door/panel. SOR code = CDX150 (Door sub-floor access replace) or 160 (Door sub-floor frame replace). b. Where this is not possible on the exterior envelope, access to the sub-floor may be through an access hatch within the building. SOR code = CMS110 c. Ensure the location and size of the hatch allows unimpeded access for maintenance. A hallway cupboard is an ideal location; if this is not possible the hatch can be located in a bedroom wardrobe d. Floor hatches must not be installed in a wet-area. e. If the under-floor space is less than 400mm, do not scope for a hatch and advise Kāinga Ora representative f. Enter a note against the AIF190 code to advise Kāinga Ora that a sub-floor door or access hatch has been scoped for; include the location.	**ACM** 48.3 **MPWS** 3820 5521
2.6	**Sub-floor Ventilation** Ensure all sub-floor ventilation grilles are clear and functional. **Please note:** A sub-floor is enclosed if the airflow into and out of the space is significantly obstructed along at least 50 percent of the perimeter of the sub-floor space by one or more of the following: - A masonry foundation wall. - Fibre-cement sheets, timber skirting, or other cladding. - Other parts of the building or any adjoining structure(s). - Rock, soil, or other similar material. - Any other (semi-)permanent structure that significantly obstructs air-flow. Even where vents are built into the sub-floor perimeter walls, air-flow into and out of the space is usually significantly obstructed. However, perimeter claddings such as trellis or base-boards with multiple continuous gaps that are more than 20mm-wide do not significantly obstruct air-flow.	**Job Code/s** CVX100-250 **ACM** 48.3 **MPWS** 3820 & 5521
2.7	**Internal Mould** Review the interior of the property for signs of mould. Where hazardous mould, dampness, or fungal growth is suspected, advise a representative from Kāinga Ora; they will initiate a	**Job Code/s** Testing Code TAA340

2.	Building Envelope & Structure	
	responsive works order. **Notes:** Mould-affected plasterboard ceilings should be cleaned as per the *Kāinga Ora Maintenance Work Programmed Specification (M-215)*. Where areas of plasterboard ceiling linings greater than 1m^2 have been affected by penetrating mould, they should be removed and replaced. Dulux paint match to existing paint. Refer to Item 3.7 – Bathroom Ceiling Linings for the appropriate works for bathrooms. Identify the mould-source to ensure it has been resolved.	**ACM** 67.2 **MPWS** 1270
2.8	**Entry Lighting** Ensure there is existing main entry lighting to the main front and rear entry areas. Lighting is required to any immediate steps leading to the front door. If these areas are not covered by existing light sources either: adjust the existing light; replace the existing light; or provide another fitting located appropriately to add the needed light. For any replacements: use an LED sensor porch-fitting or dual LED security light. Ensure any other existing exterior lighting (including sensor lighting) is fully functional. **Note:** This work does not include provision of security lighting from the entry to the street; this is not considered to fall within void scopes.	**Job Code/s** ELF600-720 **ACM** 77.9 **MPWS** 7701
2.9	**Services Penetrations** Visually check all plumbing, drainage, electrical, and gas services fixtures and fittings that penetrate the exterior cladding to ensure they are weather-tight and prevent moisture-ingress. Scope for repair as required.	**Job Code/s** CAA100 & 200 **ACM** 74.2 **MPWS** 3320 & 4282
2.10	**External Safety from Falling** Ensure all external balustrades and handrails are present, structurally-sound, and complete for all external decks, stairs, and landings that have a fall of ≥ 500mm. Handrails are required where there is a risk of fall between 500mm-1.0m. Balustrades are required where the fall is ≥ 1.0m.	**Job Code/s** CSA100-700 CSB100-650 **ACM** 43.5-6 48.1 **MPWS** 4851

2.	Building Envelope & Structure	
2.11	**Insulation Check** Conduct a visual inspection of the ceiling and sub-floor areas to review the existing insulation to ensure it is present and in accordance with the minimum requirements as nominated in the *Kāinga Ora Insulation Inspection & Scoping Guide (M-242).* Submit these checklists with the Void scope. If the insulation does not meet any of the defined criteria, engage the Kāinga Ora nominated insulation supply and installation Contractor to undertake a detailed scope for remedial works. ***Ceiling Access*** If there is no access to the ceiling, scope for the installation of a ceiling access panel using SOR code CMS100 (Ceiling Manhole Replace) and associated codes for the frame. Enter a note against the AIC190 code to advise the Kāinga Ora representative an access panel has been scoped for. ***Sub-floor Access*** Refer to 2.5 for direction.	**Job Code/s** *PBMC Contractor:* AIC/F Codes *Nominated Insulation Contractor:* CIN Codes **ACM** 47 **MPWS** 4710
2.12	**Fire Escape Ladders** Remove any existing fire escape ladders (**not** fire escape stairs) from the property; do not replace these. Include the removal of brackets, bolts, repair holes, and repair the surface paint finish. **Note**: g. If the fire escape ladder has been removed, advise a Kāinga Ora representative. h. If the vacant unit is one of a multi-unit block and other units have fire escape ladders, only remove the ladder of the vacant unit.	**Job Code/s** CFE300 **ACM** 48.2 **MPWS** 4710
2.13	**Weather Seals to Exterior Doors** Ensure each exterior door (front and rear) seals well or has an operational weather seal to the external face. If not, scope to provide a weather seal to the outside bottom-face-edge using the procured product.	**Job Code/s** CHD800 **ACM** 45.2 **MPWS** 5521
2.14	**Doors and Windows** Ensure exterior doors and windows including flashings, locks, hinges and hardware, are present, fully-functioning, and sealing well. Replace all locks that require a key to exit with locks that can be opened **without** a key from the inside. This includes doors from the habitable space into an internal garage. Check for signs of an unreasonable draught from windows: a. If there is an unintentional gap that is <2mm: install draught stripping.	**Job Code/s** CHD & CHW **ACM** 45.1 – 2 **MPWS** 4511 - 4521

2.	Building Envelope & Structure	
	b. If there is an unintentional gap that is 2-8mm: install draught stripping and/or, where inappropriate, provide double-catching to the window. c. If there is an unintentional gap of >8mm: examine the opening sash and surrounding frame for signs of damage and repair or replace as required. d. If there is currently a louvre-type window installed and there is an unintentional gap of >2mm, replace the louvre-window with a procured full window-unit. **Note** i. When replacing a sash or full window-unit, replace 'like-for-like'. ii. Where a large proportion of the window–unit is affected and/or in marginal condition, the contractor should use their discretion to determine whether to scope to repair or replace the sash or the entire window-unit.	
2.15	**Walls** Check all internal and external walls for signs of holes/ gaps/cracks or damage that may produce a draught. Any paint patch is match and marry into existing paint finish (DPE codes).	**Job Code/s** CLI200 CLX110-600 **ACM** **MPWS**
2.16	**Window and Door Glazing** Ensure the glazing in all exterior doors and all windows is complete. • If there is a crack longer than 140mm across the corner of a window, replace the glass pane. • Any replacement door glazing must be toughened glass. • Other replacement glazing larger than 0.5m^2 to be toughened glass. If there is a louvre-type window installed and there is an unintentional gap of more than 2mm, replace the louvre-window with a procured full window-unit. **Note** Refer to *M-602: Healthy Homes Programme Scoping Guide*.	**Job Code/s** *Glazing Codes* GAA - GTW **ACM** 46.1 **MPWS** 4610
2.17	**Front Door - External Visibility** Ensure front entry doors have some visibility to the outside. If there is no visibility, install a procured door viewer at 1.5m above the finished floor level. **Note** Frosted or obscure glass, or a sidelight glazed panel, is acceptable.	**Job Code/s** CHD480 **ACM** **MPWS**

2.	Building Envelope & Structure	
2.18	**Exterior Door Lock** Ensure all exterior doors and locks are working and fully-functional. All exterior door locks – including French doors where they are main entry doors – should be able to be locked and unlocked from the inside without a key..	**Job Code/s** CHD100 - 435

3.	Interior Finishes	
3.1	**Safe Flooring** All flooring is safe and does not create a trip-hazard. Repair like-for-like or replace as required.	**Job Code/s** FCA - FVN **ACM** 62.2 64 – 65 **MPWS** 6221, 6411 & 6511
3.2	**Flooring – Vinyl Flooring to Main Entry** All entrance areas for main exterior doors are to have procured, 900mm-deep (minimum), non-slip vinyl installed in place of the carpet. If the main entry is via the kitchen or laundry, existing vinyl in entry areas is acceptable and should be retained. **Note** a. Where a ranch slider is the main entry, a 300mm procured non-slip vinyl strip should be provided along the full-length of the ranch slider. b. Ranch sliders are excluded where they are not the main exterior door, with the following exception c. If carpet that is located directly in front of a ranch slider is worn, a non-slip insert would be acceptable rather than a carpet patch.	**Job Code/s** FVN350 FMS150 – 200 **ACM** 62.2 64. – 1 65 **MPWS** 6221, 6411, & 6511
3.3	**Flooring – Vinyl Flooring General** Vinyl flooring strip and polish, patch repair or replacement: • If vinyl does not meet the ACM-200 standard, strip and polish or patch-repair it. • Broken joints in vinyl that allow water egress shall be re-	**Job Code/s** FVN100 – 520 FMS100 - 200

3.	Interior Finishes	
	welded/repaired. • If vinyl cannot be repaired to the ACM-200 standard then replace it. • Where practical, lay vinyl under plumbing fittings, W/C pans, vanity cabinets and laundry tubs shall be lifted for vinyl. Where there are exposed timber floor boards with gaps greater than 2mm, install vinyl in any of the following areas: bathrooms, toilets, showers, laundries, dining areas (provided in a separate room), and kitchens. **Note** a. 'Exposed' means any unfinished or polyurethane timber floor boards in the nominated room, regardless of the condition of the existing polyurethane. b. Unless it is already coved and no other work is being undertaken all new vinyl should be coved apart from kitchens and dining rooms. c. Kitchen and dining areas shall have continuous vinyl in the full extent of these areas including beneath all: kitchen joinery (where joinery has been removed and replaced); fridge; and oven areas. d. Non-slip vinyl and non-procurement domestic vinyl does not require strip, seal, and polish.	**ACM** 62.2 64. – 1 65 **MPWS** 6411
3.4	**Flooring (Carpet)** **Living areas, bedrooms, hallways, and stairs** All carpet flooring shall perform its primary function – to fully extend across the room, be securely fixed at edges, and provide a continuous, easily-cleaned, and durable surface finish. ***Commercial clean, patch, or replace carpet*** • If carpet does not meet the ACM-200 standard, then commercially clean it. • If carpet cannot be cleaned to the ACM-200 standard, then patch repair it; if carpet cannot be patch repaired to that standard then replace it. ***Service room carpet removal*** – Remove any existing carpet in toilets, kitchen, laundry, or bathroom and replace with procured vinyl. Upgrade bare flooring to carpet for living, bedrooms, halls, and stairs. All existing bare flooring (e.g. polyurethane) to any bedroom, living room, hallway and stair area shall be replaced with new carpet and	**Job Code/s** KCH350-360 FCA100-400 FVN100-520 FAA100 & 200 **ACM** 64.1 65.1

3.	Interior Finishes	
	underlay for all properties. Guidance from a representative from Kāinga Ora should be sought for the following situations: • If new carpet needs to be laid in an accessible unit/house (has a ramp and wet area shower), installation of the new carpet differs as it must withstand the use of a wheelchair. • Where vinyl is present in living areas, seek clarification before scoping to remove and lay carpet. **For buy-ins**: Where tiled floors are present and in good order DO NOT remove and replace them.	**MPWS** 6411 6511
3.5	**Painted & Wall-papered Finishes (includes walls, ceilings, doors, windows and all trims)** All painting and wall-papered finishes should perform their primary function: seal the substrate and provide a smooth, easily cleaned, and durable surface finish to the substrate. Ensure the finish meets an acceptable standard as defined by the ACM-200. All cabinetry shall have a painted or polyurethane finish. Refinish is required for surfaces with major marks, blemishes, graffiti, mould, and/or significant wear and tear that cannot be easily cleaned (flaking, peeling etc.) per the following: • Paint or polyurethane patch any surface that is in need of refinish • Colour-match patch-painted areas (to main wall colour). • If suitable colour-match is not able to be achieved, paint the entire element. **Note** Remove or paint over any graffiti within wardrobes (either painted or unpainted). ***Wall-paper Finish*** Where a room has papered walls in acceptable condition, but also has sections of wall-paper requiring replacement, Contractors should paint the wall/s where the sections are compromised. Paint all walls where paper has been compromised on three or more walls. Wherever possible, paint over wall-paper; refer to ACM-200 for guidance on acceptable papered surfaces to paint over.	**Job Code/s** DPC, DPE, DPI, DPW, DRH, DRP, DRW, DAP **ACM** 67.2 67.4 **MPWS** 6700 6721 6751

3.	Interior Finishes	
3.6	**Wet-wall Linings** ***Shower and Bath Wet-wall Linings*** Replace any existing damaged or non-performing shower or wet-wall linings with procured wet-wall lining. Where wet-wall linings are not present, ensure wet-wall linings are applied to showers, baths, and water-splash areas as per *New Zealand Building Code (NZBC) Internal Moisture E3/AS1*. **Note** a. Refer to Kāinga Ora's *Standard Drawings (M-215a)*. b. Rotating baths: This guide does **not** include the rotating of existing baths to re- position shower heads away from windows. However, if both a bath and the surrounding wet-wall lining need replacement, it is acceptable to rotate the new bath and plumbing (shower rose and the bath waste) away from the window. c. **Buy-ins**: Remove existing acrylic shower bases and/or damaged wall linings. Replace with a new procured shower box and stainless-steel tray and wet-wall linings. If not appropriate or cannot be installed in this manner, please advise Kāinga Ora. If the existing shower is in an acceptable condition DO NOT remove.	**Job Code/s** CLW100-300 Plumbing codes also apply **ACM** 51.2 **MPWS** 5134H
3.7	**Ceiling Linings** ***Bathroom Ceiling Linings*** Clean mould-affected plaster board ceilings in accordance with the *Maintenance Work Programmed Specification (M-215)*. Remove areas of plaster board ceiling linings greater than $1m^2$ have been affected by penetrating mould. Overlay the entire ceiling with the batten and glue-fix new ceiling lining (wet-wall) and Silkline PVC scotia, as per M-215. **Buy-ins**: if they are at an acceptable standard, leave all existing linings as is. Only use anti-mould paint when repainting.	**Job Code/s** CLW410-500 DRP100 DPW100 **ACM** 51.2 **MPWS** 5134H
3.8	**Curtains** Ensure procured curtains and tracks are fitted and complete in accordance with *M-244: Curtain Scoping Guide* in all habitable rooms/spaces (i.e. the living room, dining room, bedrooms, hallways, and stairwells). **Note** Kitchens, bathrooms, toilets, and laundries are excluded. a. All works should be undertaken by the nominated supplier. b. Codes are available to maintain existing curtains: i. KCH505 – Curtain Wash	**Job Code/s** *Vacant Properties* CHM260-270 *Tenanted Properties* CHM275-280 *Removal Codes* CHM294-296 **ACM** 55.12

3.	Interior Finishes	
	ii. CHM290 – Repair Curtain Track iii. CAA100/200 – Other Repairs c. Refer to s4.3 of *M-244: Curtain Scoping Guide*; this includes BUY-IN situations.	**MPWS** 5530
3.9	**Shower Curtains** Replace any compromised or broken shower curtain and/or rail with procured like-for-like items. **Note** For level-access showers and shower-boxes, use a weighted shower curtain. Buy-ins: If the shower enclosure is in good working order, do not replace it.	**Job Code/s** CHB300-400 **ACM** 71.6 **MPWS** 5521 & 5530L

4.	Interior Hardware	
4.1	**Hardware** Ensure all existing hardware (window, cupboard and door catches and latches, towel rails, and grab rails) are functional. Ensure there is a functioning privacy lock on toilet and bathroom doors that can be opened from the outside. If not, remove the existing components and fit a procured privacy lock. Scope for a latch-set when an exterior door only has a procurement lock (such as a 002 night-latch or similar) but no latch-set. Do not replace towel rails in kitchens. Replace any grab rails in bathrooms that are in a poor condition. In all other internal areas, remove the existing grab rail if it is below standard and water egress is not an issue. Repair wall linings and patch-paint as needed.	**Job Code/s** CHB, CHC, CHD, CHM, & CHW **ACM** 55.8 **MPWS** 5521
4.2	**Wardrobe Hardware** Ensure all wardrobes and storage cupboards can be opened from the inside. Replace catches on externally-locking wardrobes (to ensure children cannot be locked inside) with a procured magnetic catch. Coat hooks are not a requirement and should not be replaced when missing in wardrobes. Where there is an open cupboard in the hallway and the coat hooks are missing then scope to replace.	**Job Code/s** CHD140 CHM300 **ACM** 55.1 **MPWS** 5521
4.3	**Child-proof Storage** Ensure there is a child-proof cupboard catch included in the kitchen, bathroom, and laundry: • Kitchens: ensure there is a functioning pair of child-proof	**Job Code/s** CHC400

	catches provided to one set of under-sink cupboards. • Bathrooms: a vanity is **not** considered child-proof (unless a pair of child-proof catches are present) while a shaving cabinet **is** considered child-proof. • Laundries: a shelf is acceptable if it is more than 1.2m above floor level, otherwise a child-proof catch is required to a laundry cabinet. **Notes** a. When installing a pair of child-proof catches to an under-sink unit in the kitchen, install these on doors where the opening edges are adjacent to each other. b. Install catches to manufacturer's recommendations; this includes installing at the top of cupboard doors. c. Child-proof catches are not required on **every** opening door to an under sink unit.	**ACM** 55.2-4 55.10 **MPWS** 5510
4.4	**Internal Safety from Falling** Ensure internal hand-rails are fitted and complete to all internal stairs of greater than 2 risers and/or where there is a fall of ≥500mm. If they are not present, scope to provide hand-rails to one side. Where there is a ≥1m fall, balustrades are required. All works should comply with existing legislation.	**Job Code/s** CSB100-400 **ACM** **MPWS** 5574
4.5	**Fall-safe Windows** Fit windows with opening restrictors (Securistays or safety-, security-, or restrictor-stays) to prevent them opening more than 100mm where: • The exterior fall height is greater than 2m; and the bottom edge of the opening sash is ≤ 1500 mm from the floor Use one opening restrictor on timber windows. This includes casement, awning-hung, and fanlight windows. Use a pair of opening restrictors on aluminium joinery. ***Timber Fall-safe Joinery*** Fit timber joinery with Securistays and leave them in the 'locked' position (SKU: LLSSPP348WLS). ***Aluminium Fall-safe Joinery*** Fit aluminium joinery with stainless-steel sash restrictors (SKU LLSSP1097C) unless: • Existing aluminium joinery cannot be retro-fitted with this type of restrictor • Security-stays have been previously fitted; in this instance, fit like-for-like	**Job Code/s** CHW150 - 170 **ACM** 55.8

	In the above instances, fit with Securistays (SKU LLSSPP388BL or LLSSP388WLS).  Above – SKU: LLSSPP348WLS (CHW150)  Above SKU: LLSSP1097C (CHW170)  Above SKU: LLSPP338BL & LLSSP388WLS (CHW160)	**MPWS** 5521
4.6	**Window Passive Ventilation** Ensure window opening restrictors are provided to at least one opening sash for every room within the house. **Note** a. Quadrant stays are an acceptable opening restrictor for high-level fanlight windows (1.7m from interior floor height to the sash). b. Existing passive ventilation strips, vents, or grilles in windows are not acceptable as the sole source of passive ventilation. i. Such passive ventilation sources may remain in place for the length of their useful life.	**Job Code/s** CHW150 - 170 **ACM** 55.8 **MPWS** 4511, 5421 & 5521
4.7	**Bathroom Mirror** Ensure there is a bathroom mirror present. Ensure it meets the prescribed standard set out in the ACM-200.	**Job Code/s** GMR100 - 110 **ACM** 55.5 **MPWS** 5510

5.	**Interior Joinery**	
5.1	**Bathroom Storage** Ensure suitable bathroom storage amenity is provided. **Note** a. Either a vanity cabinet or wall shaving cabinet is considered acceptable. b. If there is no storage currently provided, supply a procured wall shaving cabinet mounted or recessed at 1.2m above the floor.	**Job Code/s** CJC300, 310, 320 & CJC500 **ACM** 55.4 - 5 **MPWS** 5510

5.2	**Kitchen Cabinetry** Scope all kitchen cabinetry for repair or replacement as required – refer to ACM-200 for guidance and to the *Kāinga Ora Standard Drawings (M-215a)*. **Note** a. Ensure there is a cutlery insert provided. b. Refer to *4.3 Child-proof Storage*. c. Buy-ins: i. Scope all kitchen cabinetry for repair or replacement as required (refer to the ACM-200). ii. Remove dishwashers, including all plumbing and electrical fittings. Install flooring and a cupboard in the remaining space, ensuring it matches existing cabinetry. iii. Leave any existing oven and hobs if they are in good working order. Only replace with a procurement item if the existing is damaged or is not in good working order. iv. Where the installation of procurement items is not practical, please advise the Acquisition Manager.	**Job Code/s** CJC - CJD **ACM** 55.1 & 55.2 **MPWS** 5510

6.	**Building Services**	
6.1	**Electrical System** Inspect entire house and ensure all electrical sockets, lights, and fittings are complete, undamaged, safe, compliant, and fully functional. ***Replace Existing Single Sockets with Double's*** Replace any existing single electrical sockets with double-switched sockets. **Note** a. Existing 2.5mm circuits should not need to be replaced when upgrading single- to double-sockets. b. Circuits only need to be replaced if the existing conductor has a nominal cross-sectional area of 1.0mm. ***Bathroom sockets are residual current device (RCD) protected***. Ensure any existing electrical power sockets in bathrooms are RCD-protected at the distribution board. If there are significant safety issues, provide a report as per the relevant Job Code. **Note** a. This includes distribution board earthing and bonding check, and notifying Kāinga Ora of any thermoplastic sheathed (TPS) cables. b. Earthing should include under-floor foil insulation. c. Scope to replace any distribution boards with old wire fuses.	**Job Code/s** CJC300, 310, 320 & CJC500 **ACM** 55.4 - 5 **MPWS** 5510

6.2	**Hot-water Cylinder** Ensure seismic straps are included with the hot water cylinder (HWC); these must be securely fitted to timber framing. Ensure HWC temperature is set to 60°C. Delivery temperature at the shower must be set at 45°C. All other outlet temperatures must be 45 – 50°C. Provide temperature reducing valve if required. Ensure the thermostat cover is sealed and any existing over-flow tray is functioning properly (i.e. no blockages or leaks and drains to the outside of the building). **Note** New overflow trays are not required unless the HWC is being replaced.	**Job Code/s** PHW400 EHW150 **ACM** 77.6 **MPWS** 7120 (3.22 & 3.28)
6.3	**Fire Alarm System** Ensure smoke alarms are present and operational in: • bedrooms • hallways • stairs • living areas • dining areas and • the garage (where internally accessed) Ensure all alarms are the new Kāinga Ora procured alarm and are located as per M-215. Remove any other alarm (excluding recent installations of Fire Angel, Quell, and Kidde alarms) and replace with a new procured alarm. **Note**: a. Install smoke alarms to manufacturer's requirements. b. Specialist alarm systems are maintained by a nominated contract supplier, not the PBMC. c. If a Contractor identifies any issues, notify the Kāinga Ora Customer Support Centre.	**Job Code/s** EMS650-695 **ACM** 55.11 **MPWS** 7701 (210)
6.4	**Stove** Ensure all stand-alone stoves have a functioning, anti-tip device and drop-bolt fitted. Ensure all built-in ovens are adequately restrained; these do not require an anti-tip device or drop-bolt. Ensure all cook-tops and ovens are complete and fully-functional (i.e. check all cook-top elements, ovens, seals, door handles, and lights are working and that all racks and x2 trays are provided. **Notes** a. Drop-bolt parts are shown in the *Building Materials Procurement Schedule (M-217)*. b. Electrical safety, earthing, and connections are covered within the *Whole House Electrical* report. Gas stove compliance checks are undertaken separately under the gas inspections programme, refer to the *Gas Inspection Guide (M-249)* and *Gas Conversion*	**Job Code/s** ERG830–840, ERS/KCH250 - 260 **ACM** 55.10 77.8 72.4 **MPWS** 5521 (2.3) 7701 (3.20) 7221

	Scoping Guide (M-259). c. A stove report is only required where repairs will cost over $350.	
6.5	**Living room heating** Confirm the form of fixed-heating provided in the living area meets the requirements of Kāinga Ora's *M-245: Heating Scoping Guide*. To determine the heating capacity for the living room refer to the *Kāinga Ora Heating Scoping Guide (M-245)* for heating calculator instructions. Once the kilowatt output has been calculated, liaise with the nominated supplier to select an appropriate heating source. **Rest of house** Heating interventions will be extending to the whole of house and are currently being finalised. In the meantime, where there is existing heating in bedrooms and other areas of the home identified, note on the scope and refer to the Healthy Homes Programme team. Note Refer to the *Heating Scoping Guide (M-245)* for heating sizing instructions.	**Job Code/s** EHT, HOF, HSF & SHT600 **ACM** 72.3 & 77.7 **MPWS** 7701, 7673, 7556 & 7221
6.6	**Fireplace Closure** Close-off all open fireplaces in accordance with *Heating Scoping Guide (M-245*); complete all works in accordance with *Maintenance Planned Work Specification (M-215*) using Job code CMS200. • Install a ply panel over the opening and a securely-fixed, sealed zinc-cap at the chimney top. • Ensure the zinc-cap flashing extends down the outside of the chimney/flue so it can be seen from the ground. ***Closed-up Fireplace Check*** Ensure all previously boarded fireplaces are still securely boarded up and chimney capped in accordance with *Maintenance Planned Work Specification (M-215*).	**Job Code/s** CMS200 **ACM** 75.2 **MPWS** 5211
6.7	**Plumbing** Ensure all plumbing fixtures and fittings are fully-operational (e.g. taps not dripping, toilets flushing, HWC has no signs of leaks etc.). Ensure adjoining joinery and wall-linings are sound and have no visible signs of leaking.	**Job Code/s** PBA-PWC **ACM** 71.6 & 71.7 **MPWS** 7151
6.8	**Low-flow Shower-mixer** Confirm all shower-mixer fittings meet Kāinga Ora's low-flow requirements of 6-8 litres-per-minute (i.e. it takes 8-10 seconds to fill a one-litre jug). To adjust Turbo Stream or Feltonmix shower-mixers, adjust the flow	**Job Code/s** PSH150

	using isolators in the body of the shower-mixer. Refer to manufacturers' installation and product sheets. Ensure alternative shower-roses (including slide-showers) have flow-restrictors installed to provide a 6–8 litres-per-minute flow-rate. Lever-handle shower-mixers can have the flow regulated by adjustment within the mixer. **Note:** a. Shower-heads do not need to be replaced to achieve low flow-levels. b. Buy-ins: If it can be achieved with existing wall-linings, replace all flexible shower-heads with a standard head. i. Do not replace flexible shower-heads if the customer has specific needs related to accessibility.	**ACM** 71.6-71.7 **MPWS** 7101
6.9	**Water Meter-readings** Provide a water-meter reading (including date and time) and serial number to Kāinga Ora when undertaking plumbing works. Record this information on the comment field of the work order job line. **Note** This is especially important when work orders relate to leak-detection and/or identification of excess water use and where meter readings are several months apart.	**Job Code/s** **ACM** 71.1 **MPWS**
6.10	**Gas Fittings Inspection** Routine maintenance gas inspections are undertaken as part of a separate programme as detailed in the *Kāinga Ora Gas Inspection Guide (M- 249).* **Note** Replace all ~~any~~ gas fittings ~~that is in an unsafe condition~~ with an electric equivalent. Refer to the *Gas Conversion Scoping Guide (M-259)*.	**Job Code/s** **ACM** 72 **MPWS** 7211 & 7221
6.11	**Bathroom Lighting** Replace any: compact fluorescent light bulbs (CFL) or incandescent existing ceiling- or wall-mounted batten-holder-fitting with a procured LED bulk-head fitting. The current model is: • the 18w for rooms ≤9m² • 30w for larger rooms • Ideal Electrical REX Typhoon bulk-head fitting. **Note** Replace all unearthed bathroom lights (including unearthed Moonlight fittings) with new procured double-insulated LED fittings.	**Job Code/s** ELF520 **ACM** 77.9 **MPWS** 7701
6.12	**Entry Lighting** Ensure the front and rear entries have fully functional exterior	**Job Code/s** ELF600-720

	lighting. Use a procured LED sensor porch-fitting or dual LED security light for any replacements. **Note** Ensure any other existing exterior lighting (including sensor lighting) is fully functional.	**ACM** 77.9 **MPWS** 7701
6.13	**Kitchen and Bathroom Mechanical Extraction** Replace any recycling air type hood, missing, or non-functioning, existing mechanical extract hood to all bathroom showers and kitchen stoves with the current procured extraction system. Utilise the existing ducting vent hoods, ducting, roof vents etc. wherever possible. All works to be strictly undertaken by the nominated sub-contractor HomeTech in accordance with the *Kāinga Ora Mechanical Extraction Scoping Guide (M-243).* **Note** a. All mechanical extraction systems are to be ventilated to the exterior and need o comply with the Healthy Homes standards. b. Advise Kāinga Ora if unable to fit mechanical ventilation to either the bathroom or kitchen. c. If they come across any Humidistats that have failed, Contractors should contact HomeTech directly, providing the address, for HomeTech to complete warranty replacement at no cost to Kāinga Ora. d. In the bathroom, ensure there is 20mm clearance under the door for supply/return air in ventilated and/or all air-conditioned spaces. e. Buy-ins: Remove and replace existing recycling range-hoods (i.e. not externally ventilated). Take care to terminate the new duct in a manner that prevents condensation running down the wall.	**Job Code/s** EFN050-700 By nominated sub-contractor **ACM** 76.2-76.3 **MPWS** 7687HV
6.14	**Range-hood and Heat Pump Filter Clean** If required, thoroughly clean kitchen range-hoods, extract fans, and heat pumps, including any grilles and washable filters. Replace filters that are unable to be cleaned.	**Job Code/s** EHT050 KCH270 EFN400-430 **ACM** 76.3 **MPWS** 4710 & 7687
6.15	**Broken Bathroom Basins to Vanities** Replace any damaged/broken hand-basins or vanities with procured items. Wherever possible, use a wall-mounted procured vanity. If the vanity or vanity-top requires replacement due to water-damage	**Job Code/s** CJC310-320 **ACM** 55.4

	from the shower, consider installing a basin. **Note** Re-use any existing functional taps that are in good working order and condition. If existing taps are not functional, install a Kāinga Ora-procured single-lever mixer.	**MPWS** 5510
6.16	**Security Alarms (BUY IN)** **Security** systems **to standalone houses only** are to be decommissioned to avoid both maintenance liability and false alarms. External siren boxes may be left in place. **Note** Any larger complexes or special properties with specialist alarm systems maintained by a nominated contract supplier are to be flagged to the Acquisition Manager.	**Job Code/s** EMS150 **ACM** **MPWS**
6.17	**Dishwashers (BUY IN)** Dishwashers are to be removed. All plumbing and electrical fittings for dishwashers are to be removed. Replace with cupboard in the remaining space to match existing cabinetry or flooring to the space.	**Job Code/s** EMS150 PBA-PWC **ACM** **MPWS**
6.18	**Heated Towel Rails (BUY IN)** Heated towel rails are to be disconnected and left in place if in good repair and adequately fixed to wall. If in disrepair remove. Electrical fittings to be disconnected and removed. Wall to be made good.	**Job Code/s** EMS150 **ACM** **MPWS**
6.19	**Waste Disposal Units (BUY IN)** Waste Disposal Units are to be removed. Electrical fittings to be disconnected and removed.	**Job Code/s** EMS150 PBA-PWC **ACM** **MPWS**
6.20	**Automatic Garage Door Openers (BUY IN)** Any existing garage door openers should remain in place; ensure the opener is in good working order.	**Job Code/s** EMS150 **ACM** **MPWS**
6.21	**Vacuum Systems (BUY IN)** Terminate all vacuum systems, remove the motor, and ensure any and all vacuum hose-outlets are sealed.	**Job Code/s** EAA100 **ACM** **MPWS**

6.22	**Spa Baths (BUY IN)** Disconnect and remove all spa baths from the property. Install a standard procurement bath as required; ensure floors and walls are left in an optimal condition.	**Job Code/s** **ACM** **MPWS**
6.23	**Under-floor Heating Systems (BUY IN)** Disconnect all under-floor heating systems and leave in situ. Refer to section 3 for flooring requirements.	**Job Code/s** **ACM** **MPWS**

7.	General	
7.1	**Internal Clean** Thoroughly clean all internal surfaces, fixtures, and fittings and leave property presentable and ready for use by new customer. **Note** a. House cleaning codes and painting codes include the removal of all staples, nails, pins, and tape from all surfaces. b. Rebates for as-required cleaning of aluminium joinery are included in house cleaning.	**Job Code/s** KCH Codes **ACM** **MPWS** 1270
7.2	**Interior Rubbish Removal** Remove and dispose of all rubbish from house interior including the ceiling space, garage, shed, and sub-floor. Record the cumulative volume of internal rubbish and enter it under the 'Unit' location. Refer to *Kāinga Ora's Method of Measurement 2018-19*.	**Job Code/s** KCH050 **ACM** **MPWS**
7.3	**Pest Control** Treat any signs of pests with appropriate treatment and ensure the problem is eradicated. If due to tenant action or inaction, this should be scoped as damage. Evidence of any timber borer infestation should be raised with the Kāinga Ora representative to confirm suitable actions. **Note** Undertake any pest control works before the final clean; preferably at the start of works.	**Job Code/s** TPC100 - 150 **ACM** **MPWS** 3897
7.4	**Tenant Damage** Scope to repair all damage caused by the action or inaction of tenants and/or occupants over and above fair wear and tear. Flag with a "D" on all relevant job lines and add a comment giving the reasons to believe this is tenant damage.	**Job Code/s** **ACM** **MPWS**

7.5	**All Other Damage** Scope to repair all damage that does not fit the definition above, such as faults caused by an act of nature (e.g. broken tree limbs from a storm or roof tiles blown off a roof). These job lines are designated "M" (default).	**Job Code/s** **ACM** **MPWS**

9. Additional information

9.1 Nominated Sub-contractor and Contractor's details

The following nominated sub-contractors are to be used to undertake the complete scoping, supply, installation, and certification of these nominated items:

Kāinga Ora Nominated Sub-contractors		
Mechanical Extraction	**Hometech Limited**	
	Key Account Manager: E-mail: Phone:	9(2)(a)
Curtains	**Harvey's Furnishings Limited**	
	Key Account Manager: E-mail: Phone:	9(2)(a)
Roofing	**Edwards & Hardy**	
	Group General Manager E-mail: Phone:	9(2)(a)

The following nominated supply and installation contractors may be engaged directly by Kāinga Ora (not PBMC) for these works items:

Kāinga Ora Nominated Supply and Installation Contractors		
Heat Pumps	**Switch**	
	Key Account Manager: E-mail: Phone:	9(2)(a)
Insulation	**Smart Energy Solutions**	
	Key Account Manager: E-mail: Phone:	9(2)(a)

10. Solutions guides: 2019-2020

10.1 Acceptable solutions guide: Heating

The existing living room heat source is to comply with Section 5 – Acceptable Heating Solutions Table within the *Kāinga Ora Heating Scoping Guide (M-245)* which defines Kāinga Ora acceptable heating solutions for the period from 1 July 2019 to 30 June 2020.

10.2 Acceptable solutions guide: Insulation

The *Kāinga Ora Insulation Inspection & Scoping Guide (M-242)* defines how Kāinga Ora staff and contractors and Kāinga Ora National Insulation supplier will achieve the desired outcomes for existing Kāinga Ora properties. The Scoping Guide is to be used for scoping, supply and installation of all insulation works to all Kāinga Ora properties.

Ceiling and Subfloor Insulation –Contractors are to check each property for ceiling and subfloor insulation and complete and submit the "Property Insulation Scoping Checklist" as provided within the *Kāinga Ora Insulation Inspection & Scoping Guide (M-242)* defines to the

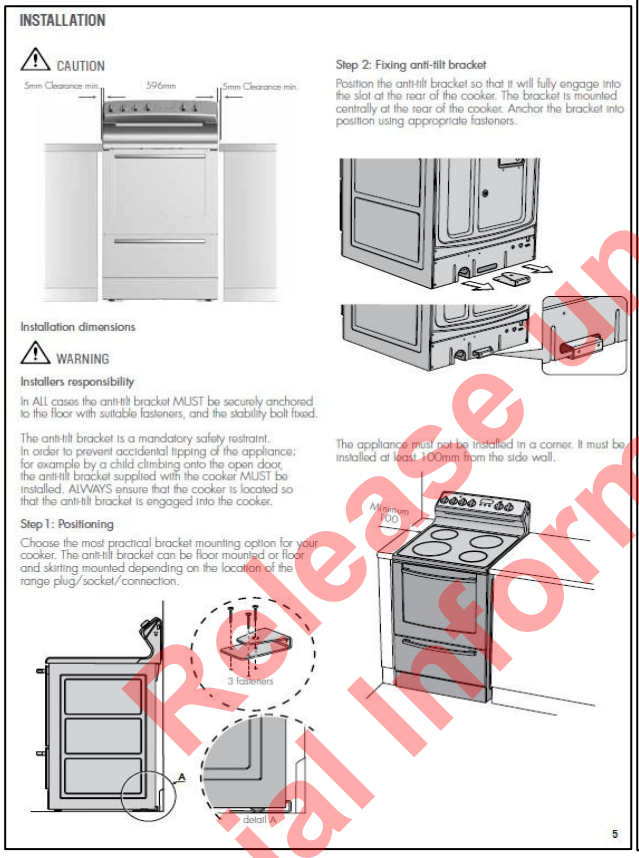
Kāinga Ora representative, who will then instruct the National Insulation Supplier to provide a detailed scope and the improved Insulation to those properties found to be deficient as per that checklist.

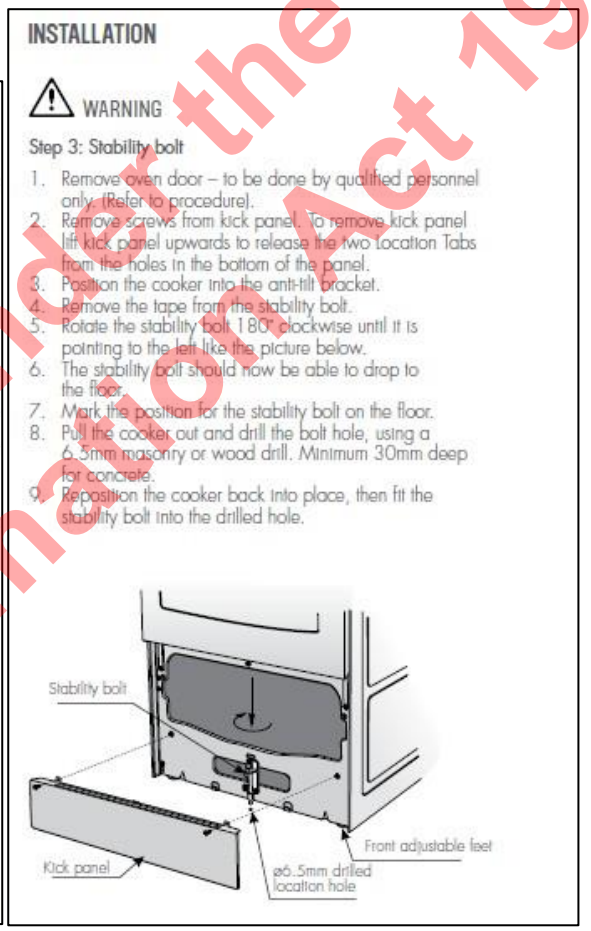
11. Specific notes

The following notes provide additional specific guidance on some of the items within Section 7 – Detailed Scoping Tables and the numbering and headings in bold below refer back to the item numbering and headings within those tables.

6.4 Stove

Contractors shall ensure stove anti-tip and security bolts are in place and functioning in accordance with manufacturer recommendations. Refer to Electrolux stove user's manual – excerpt below:





The Electrical Whole of House report is undertaken through EMS050. This report includes checking the stove for earthing and wiring connections.

A stove report is to check the function of the appliance and the components ie elements, door seals, knobs, chassis. A stove report is only required if repairs are likely to cost more than $350. It is expected that the Scoper will be able to turn the stove on to test the function of all elements and lights. A visual check of door seals, hinges, element bowls and stove chassis is sufficient.

6.13 - 6.14 Kitchen and Bathroom Mechanical Ventilation

The nominated supplier is responsible for the complete supply, fitting, installation and compliance of these works. The nominated supplier is to provide any alternative solutions or recommendations wherever the usual solution is not possible, or confirm that a solution is not possible.

Where an existing nominated supplier passive duct has been previously been installed, the nominated supplier is to convert this to a mechanical duct with the installation of the nominated supplier conversion kit.

No mechanical ventilation is required for separate toilet compartments.

The main contractor shall co-ordinate electrical cabling to provide switches as requested above. Un-co-ordinated timing of work is not a suitable explanation for alternate switching. Co-ordination between the nominated supplier electrical and wall lining installation is required.

12. Records

Retain all records within Kāinga Ora's records system - refer 'Records retention and disposal' (R-105).

13. Version control

Details of previous versions are stored in Kāinga Ora's document management system (Objective). Refer to header and footer information for reference document elements or for any queries contact Atamai@kaingaora.govt.nz.

Appendix A: Kitchen components for replacement kitchens

From Kāinga Ora – Homes and Communities (2019) M-255: Housing Standard – Design (version 4)

5	Interior Joinery	Housing – Typical Systems
Building Element		**Measurable Criteria**
5.1	**Kitchen Benching and Cabinetry**	a. Bench-tops i. 600mm-deep, comprised of two materials: - High-pressure laminate with coved laminate up-stand behind and - polished stainless-steel with integral up-stand, anti-spill lip to front and sides, and 37mm-high front edge. ii. Must be burn-, cut-, and stain-resistant and provide an easy-to-clean hygienic surface. b. Cabinetry i. Minimum 18mm moisture-resistant carcass, doors and drawers with pre-finished low-pressure laminate (melamine veneer or similar) to both sides with 2mm PVC edgings. ii. Must include a 100mm-high (minimum) toe-kick. iii. One cupboard – preferably beneath the sink – must include a child-resistant catch. c. Doors i. Have a maximum width of 450mm. ii. Hinges provide a 115-170o opening and are recess-mounted; x3 per under-bench leaf and x4 to doors over bench height. iii. Handles are horizontal metal bow-pull-style with 150 x 25mm finger-clearance. d. The underside of the bench has drawers in banks of 4 (x2 smaller above x2 larger drawers). iv. Provide a cutlery insert tray for the top drawer. e. Pantry has x5 full-width fixed shelves. f. Microwave to be located at bench height with an adjacent power outlet. **Notes** 1. The following are **not** permitted: i. Over-cupboards. ii. Sliding, bi-folding, or double-hung (corners) doors. iii. Fixed-end panel to the fridge space. iv. Fully enclosed temporary waste and recycling space and built in bins. v. Melamine edge tape. 2. Refer to Table 2 for additional information. 3. Refer to *Housing – Diverse* for additional requirements.

6	Building Services	Housing – Typical Systems
Building Element		**Measurable Criteria**
6.9	**Kitchen Sink**	**a.** Polished 304 grade stainless-steel. **b.** At least 410 (W) x 355 (D) x 170mm (H) sink with integral over-flow and 440 x 390mm drainage tray. Notes **1.** Top-mounted sink bowls are not permitted.
6.10	**Kitchen Sink and Basin Mixers**	**a.** Single-lever, chrome-plated mixer with easily-adjustable flow-rate set for 6-8 l/min. Notes **1.** Refer to *Housing - Typical Products*.
6.16	**Stove**	a. Electric free-standing oven and hobs with: i. Anti-tip device. ii. Drop-bolt seismic movement limiting-device. iii. 80 litre capacity. iv. Integral storage door. v. Child-safe height for controls. **Notes** 1. Refer to *Housing – Diverse* for additional requirements. 2. Refer to *Housing - Typical Products*.
6.17	**Kitchen Extraction Fan**	a. Range-hood extract ventilation system. b. Minimum 650m3/hr extraction rate. c. Fire-resistant ducting that is ducted to discharge to the exterior. d. Includes washable filters and auto shut-off. e. Max noise level 60dB. **Notes** 1. It is **not** permitted to have the extract discharge through the soffit. 2. Refer to *Housing - Typical Products*.

Table 2: Kitchen space requirements

	1-2 Bedrooms	3 Bedrooms	4 Bedrooms	5-6 Bedrooms
Wet bench	1.25m (L) x 600mm (D)[1]	1.65m (L) x 600mm (D)[1]		1.8m (L) x 600mm (D)[1]
Dry bench	1.4m (L) x 600mm (D)[1]	2.4m (L) x 600mm (D)[1]	3.0m (L) x 600mm (D)[1]	3.6m (L) x 600mm (D)[1]
Pantry (W)	450mm (W) x 600mm (D)[1] x 2m (H)[1]	600mm (W) x 600mm (D)[1] x 2m (H)[1]		900mm (W) x 600mm (D)[1] x 2m (H)[1]
Drawers[2]	x1 Bank (600mm (W)[1])	x2 Banks (600mm (W)[1])		x2 Banks (600mm (W)[1])
Fridge	750mm (W) x 700mm (D)[1] x 2.0m (H)[3]	750mm (W) x 850mm (D)[1] x 2.0m (H)[3]		750mm (W) x 850mm (D)[1] x 2.0m (H)[3]

Notes
1 – Minimum requirements
2 – Drawers include x4 drawers per bank, with one drawer including a cutlery insert
3 – Minimum clear-height

Exterior Paint Scoping Guide: M-240

For the 2019/20 Financial Year Only

Effective from 1 October 2019
Version – 7

Kāinga Ora
Homes and Communities

Exterior Paint Scoping Guide M-240

Contents

Document Control		
Document Name	**Exterior Paint Scoping Guide** – for Kāinga Ora properties for **2019-20** year	
Kāinga Ora Business Unit	People and Homes – Maintenance and Upgrade	
Version No.	7	Status : Current
Issue Date	1 October 2019	
Peer Reviewer/s and Sections	Natasha James	Manager, Information and Documents - Maintenance
	Esther Tia Ropati	Contracts and Document Advisor
Final Approved By	Stacey Marsh	Quality Homes Advisory team Manager
	Monique Fouwler	National Portfolio Manager
	Angela Pearce	National Maintenance and Upgrade
Amendments:	Updated for Kāinga Ora. Minor formatting changes.	

For existing Kāinga Ora – Homes and Communities properties

Note:

Changes since last edition shown in orange.

All previous Scoping Guides, Specifications and drawings are superseded. Contains colour illustrations - colour printing is recommended.

1. Introduction

Kāinga Ora – Homes and Communities' role is to provide safe, healthy, fit-for-purpose and sustainable housing for people in need, for the duration of their need.

2. Purpose

This *Kāinga Ora Exterior Paint Scoping Guide (M-240)* is to provide guidance for Contractors in compiling a site-specific scope of works for exterior paint and associated maintenance works for any Kāinga Ora property.

The Scoping Guide provides for a range of component items and actions and their associated Job Codes. The Contractor must select from this range, the appropriate items and actions that are required in the circumstances (specific to the property and programme), to complete a scope that will be submitted to Kāinga Ora for approval. Where relevant, the Scoping Guide may also nominate component items and actions that are not to be included in the Scope.

3. General guidance

This section provides general guidance notes for the Contractor to ensure the scoped work will achieve the appropriate outcome.

1. Health and Safety

At all times while the worker is involved in scoping activities, they must operate and comply with a work management system that meets all applicable legislative requirements, manages the work and related risks that exist, or will be created as part of scoping works. The Persons Conducting Business or Undertaking (PCBUs) Kāinga Ora and the Performance Based Maintenance Contractors (PBMC) have an overlapping duty to eliminate or minimise risks to workers and other persons. In meeting health and safety duties the PCBUs will, as far as reasonably practicable, consult, cooperate and coordinate their activities.

Hazard assessment, surveys or investigations attributed to the works being scoped, should identify as part of this process, those activities that have the potential to cause injury or illness to workers, tenants or others, so that controls can be identified as part of the work package.

Please note – Any Health and Safety issue requiring immediate response should be removed from this scope and treated as a separate urgent (URG) works order. These are to be advised to the Kāinga Ora Customer Services Centre on Ph. 0800 888 455 for Monday to Friday 8am-5pm or 0800 801 601 for outside those hours.

1.1 Cost-effective solutions

Where there is an option to either repair or replace a component or item, the Contractor must identify where full replacement of the item is more cost-effective than repairing it, and propose replacement as part of the scope. These proposed replacements shall be agreed with the

Kāinga Ora Planned Programme representative and included in the approved scope before replacement is undertaken. If the proposed solution may also affect scopes for other work programmes, details should be forwarded to Kāinga Ora for consideration.

1.2 Supporting documentation

This Scoping Guide should be read in conjunction with other Kāinga Ora PBMC Reference Material. Current versions of the following documents will provide valuable information and context to assist the Contractor in completing and submitting appropriate and accurate scopes. All Scopers, Contractors, Tradesmen and associated parties are to have copies and/or immediate access to all this information on site and are to be working strictly in accordance with those instructions.

Reference Material	Purpose
Kāinga Ora Amenity Condition Manual (ACM-200)	Provides guidance on what Kāinga Ora determines is an acceptable or unacceptable condition for specific componentry of a property.
Kāinga Ora Supplier Code of Conduct (M-360)	Provides Kāinga Ora expectations with regard to behaviour and conduct while on site.
Kāinga Ora Asbestos Management & Control Policy (HS-213)	Provides Kāinga Ora expectations with regard to the safe management and control of asbestos which is a hazardous material.
Kāinga Ora Lead-based Paint Management & Control Policy (HS-214)	Provides Kāinga Ora expectations with regard to the safe management and control of lead based paint which is a hazardous material.
Kāinga Ora Maintenance & Programmed Work Specification (M-215)	Provides a detailed description on a trade basis, of how the relevant work must be undertaken.
Kāinga Ora Standard Drawings (M-215a)	These drawings illustrate how specific items should be constructed/installed on a property.
Kāinga Ora Method of Measurement (M216v8) (included in the Kāinga Ora Schedule of Rates).	Provides instruction on how specific property features are to be measured. The Method of Measurement is particularly relevant to scoping as it defines how to measure the quantity of

Kāinga Ora Schedule of Rates (M-218)	Provides a description of a particular maintenance activity and cost.
Kāinga Ora Building Materials Procurement Schedule (M-217)	Provides a full list of the materials, products and their costs that Kāinga Ora procures under a national supplier agreement and which must be used when undertaking the relevant work.
Kāinga Ora Customer and Contractor Agreement Form (M–323)	This form confirms the process for achieving tenant agreement for the Contractor to work on the property and to use certain facilities.

1.3 Kāinga Ora contact details

Any questions regarding this Work Programme are to be addressed to:

Email: planned.programmes@kaingaora.govt.nz

1.4 Kāinga Ora internal process

Many teams in Kāinga Ora are involved in the Planned Programmes process, the primary roles involved are:

- **Asset / Portfolio Managers** – Confirm property inclusion in the programme.
- **Planned Programme Team** – This team receives the scoped work order from the Contractor and reviews it to see that the Contractor has achieved the aims of this Scoping Guide, before authorising. They check appropriate use of schedule of rates and review all variation requests from Contractors during the course of the work. This team monitors the programme process against agreed targets.

2. Scoping for exterior paint

2.1 Scoping outcome

Kāinga Ora's Exterior Paint Works Orders are used to approve the preparation, washing and painting works designed to maintain the exterior of both the painted and unpainted surfaces of its properties (excluding concrete tile roofs etc.). This work is carried out in accordance with its procured product manufacturer recommendations and warranty (refer to the *Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime 2019-20* and undertaken by the PBMC contactors and their sub-contractors within the terms of their PBMC contract.

Accordingly all PBMC contractual documents and procedures are relevant to these works which is a subset of the larger PBMC contract works of the 2019-20 financial year.

This *Kāinga Ora Exterior Paint Scoping Guide (M-240)* is specifically designed to provide guidance

for Contractors, Kāinga Ora Staff and Stakeholders to help them understand the various documents, responsibilities and actions required to achieve the desired outcome, which includes achieving all warranty conditions for each Kāinga Ora property.

This guide is intended for all Kāinga Ora properties, which includes Apartment buildings and Community Group Housing (CGH) properties, although often there may be specific additional instructions for the painting of those specialist properties.

This scope is designed for use for Kāinga Ora Complex buildings – i.e. those buildings three levels or more and making up ten or more joined units, in effect apartments and terraced housing.

Please note – Dulux will provide a site specific scope for these properties that may nominate specific changes or additional notes/product to this generic scope. Contact the Contracts Manager at Dulux for details of this process for all three level and higher properties. Site visits by Dulux will be required to complete the documents.

This *Exterior Paint Scoping Guide (M-240)* defines how Kāinga Ora Staff and Contractors will achieve the desired outcome in terms of scoping for the correct preparation works, making good and the actual painting and associated works required (e.g. scaffolding, washing and remedial works) to the nominated exterior roofs, walls and claddings and other components of Kāinga Ora existing properties. This *Exterior Paint Scoping Guide (M-240)* is to be used for all Exterior Paint works to all Kāinga Ora programmes – i.e. Planned and Responsive Maintenance works.

2.2 Scoping outline

The Exterior Paint Scope is detailed in the summary schedule tables shown within this document. They identify the extent of works to be scoped to any external building component – walls, cladding, roof, spouting etc. on a material basis – e.g. timber, concrete, galvanised steel. These tables define the extent of the works required and identify the respective *Kāinga Ora Maintenance & Programmed Work Specification (M-215)* and *Kāinga Ora Amenity Condition Manual (ACM-200)* references as well as the appropriate Job Code for that item.

General Notes

This is a high level summary of the scope of works**.**

Extent of Works – Only painted or unpainted surface forming the exterior structure and cladding of the house, garage, carport, plus previously-painted sheds and fencing shall be included for preparation works, repair if required, washing and painting as per the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)* and *Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime 2019-20.*

Please note – only specific nominated roofs (i.e. painted and unpainted galvanised) are included.

Pre-Paint Repairs – **all painted** claddings, exterior joinery, fittings, materials that are to be repainted shall be repaired/made good in accordance with *Kāinga Ora Amenity Condition Manual (ACM-200)* before washing or painting.

Please note – all repair works to be done on a like-for-like basis. This includes the repair and/or replacement where required of rotten window frames, painted roofing and spouting repairs, weatherboard repairs, services penetrations, etc. These works are to be identified on separate pre-paint works order.

Associated Maintenance Repairs – other associated maintenance repairs as listed in Section 4.5 – Associated Maintenance Scope of this document (e.g. spouting internal wash, broken glazing) and shall be scoped for repair when encountered and included on a separate responsive maintenance works order. These are excluded from the other exterior paint works orders – refer to tables 4.4 – Pre-paint Works Order Scope Summary and 4.6 – Painting Scope Summary of this document.

Chemical House Wash – **all** painted and unpainted surfaces of the house and garage or carport shall be chemically cleaned as per the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)*.

Please note – Exclude all concrete tile roofs, unpainted sheds and unpainted fencing, paths, letter boxes, clotheslines, which shall be left as is unless they are to be re-painted in which case a wash will also be required.

This wash includes:

- **Any unpainted timber** – E.g. decking, balustrades, handrails, exposed posts and joists, sub-floor cladding.
- **Pre-finished materials** – E.g. galvanised pipe railings and roofing, colour steel roofing, spouting or wall cladding, vinyl weatherboards, aluminium windows, glazing, stainless steel fittings.
- **Naturally-finished materials** – E.g. natural brick and stone veneer, concrete block, copper and poly vinyl chloride (PVC) spouting (wash both inside and outside).

Preparation – prepare all surfaces for painting in accordance with the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)*.

These works are to be scoped and included within the paint scope works order.

Painting works – All painted, pre-painted and stained surfaces to all areas of the house, garage, carport, shed and fencing are to be painted as per the scope summary tables within this document.

These works are to be scoped and included within the paint scope works order.

Exterior/Interior Demarcation – The exterior is defined as the full extent of any external building elements comprising the exterior skin of the property, including the full extent of any entry recess or overhang. The demarcation between exterior and interior painting is –

- For opening window sashes and doors the exterior paint scope includes the outside face, top, bottom and edges, and all faces of the frame up to and including the external edge of any sill or jamb liner.
- Refer to *Kāinga Ora Standard Drawings (M-215a)* for typical window demarcation details.

4.3 Exterior paint scope of works

Works order tables

To all exterior surfaces on the main house, garage, carport, shed, fencing undertake the following generic works in accordance with the *Kāinga Ora Maintenance & Programmed Work Specification (M-215).*

4.4 Pre-paint works order scope summary

All nominated works as listed below are directly related to ensuring a proper paint finish is achieved and shall be reviewed and scoped for inclusion in the pre-paint works order if required.

No	Pre-paint Works Order Scope	
1.	**Pre-paint Repairs** Repair or replace all damaged claddings, exterior joinery, fittings and materials that are to be painted as required. Various carpentry **codes** apply.	**Job Code/s** Various **ACM** 41 - 48 **MPWS** Sections as required.
2.	**Paint Strip** Chemical strip previous painted surfaces where required due to condition of existing paint. **Please note**: Allow one additional paint strip where required. Any other additional paint strips need to be approved by Dulux.	**Job Code/s** DPE760 - 770 **ACM** **MPWS** 6700
3.	**House Wash** Chemically-wash all areas of the property exterior – i.e. wash both painted and prefinished external cladding materials E.g. brick veneer, stone facings, aluminum windows, glazing, garage doors, exterior face of spouting's. **Please note** – for stained plywood cladding wash twice.	**Job Code/s** DRE090 **ACM** **MPWS**
4.	**Roof Report** Engage the nominated national roofing sub-contractor to undertake roof inspection and report outlining any works required before any roof is painted. All roof reports are to be forwarded to the Kāinga Ora	**Job Code/s** RMS050 **ACM** 43.1 - 4

	Maintenance Supervisor. **Paint Strip** Chemical strip previous painted surfaces where required due to condition of existing paint. **Please note**: Allow one additional paint strip where required. Any other additional paint strips need to be approved by Dulux.	**MPWS** 4311 – 12, 4321 - 4323
5.	**Roof Clean & Treat** Clean and treat only those roofs that are to be painted.	**Job Code/s** RMS100-180 **ACM** 43.5 - 6 **MPWS**
6.	**Painted Decking Wash** Chemically-wash all painted decking, stairs and balustrades (**Please note** – unpainted decking and balustrade wash is scoped within Associated Maintenance Works Order).	**Job Code/s** DRE090 **ACM4** 43.5 - 6 & 48.1 **MPWS**
7.	**Putty Glazing Seals** Repair cracked broken or missing putty.	**Job Code/s** GMS500 **ACM** 46 **MPWS** 4610
8.	**Painted Fencing** Chemically-wash all existing painted fencing to be repainted. **Please Note** – Leave other fencing as is and any retaining walls.	**Job Code/s** DRE090 **ACM** 84.1 **MPWS** 6711
9.	**Clothesline** Prepare for painting if required.	**Job Code/s** DPE410 **ACM** 84.3 **MPWS -** 6711

10.	**Vegetation** Where existing vegetation is touching the property, remove plants to ground level. Use tree removal codes if required.	**Job Code/s** YAA300 - 400 **ACM** 83.1 **MPWS** – 8382
11.	**Redundant Fittings** Remove any redundant fittings e.g. aerials, overhead cable anchors, as per the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)*. Repair substrate and make good. Ensure one working aerial left in place. **Please note** – only remove items from roof if safety of fall (scaffolding or edge protection) is already available on site.	**Job Code/s** **ACM** **MPWS**
12.	**Fire Escape Ladders** Any existing fire escape ladders (not fire escape stairs), are to be removed from property and not replaced. Include the removal of fixing hardware. Repair holes and make good surface paint finish. **Please note** – Kāinga Ora representative is to be advised when fire escape ladders have been removed.	**Job Code/s** CFE300 **ACM** 48.2 **MPWS**

Pre-paint notes

House Wash – To the full extent of the house, decking, attached garage, separate garage and painted sheds (but excluding unpainted sheds and all ancillary buildings and unpainted fencing) wash all external items including all exterior cladding, all window and door joinery, all glazing, external faces of all spouting, downpipes, gutters, subfloor cladding etc.

Duroc Fibrolite Wall Cladding – These claddings are to be washed and painted, but require specific appropriate Health & Safety precautions, refer to the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)*, *Kāinga Ora Asbestos Management & Control Policy (HS-213), Kāinga Ora Lead-based Paint Management & Control Policy (HS-214)* and current health and safety legislation.

Roofs – Specifically excluded from the house wash, unless the roof is scoped to be painted – E.g. galvanized steel roofs.

Please note – both washing and painting of all roofing for all three-level and higher properties, is specifically excluded from the exterior paint scope as these will be undertaken by specialist works order.

4.5 Associated maintenance scope

Only the nominated works as listed below are considered appropriate to be undertaken at the time of exterior painting. These works items shall be reviewed and scoped for inclusion in the Associated Maintenance Works Order if required (no others items shall be scoped).

No.	Works to be Undertaken	
1.	**Spouting & Downpipes Wash** Clean out and wash inside of the external spouting and valley gutters, to ensure they are free flowing and discharge to stormwater outlets. **Please note –** The external face of the spouting is included in cladding wash. Two codes are available for cleaning spouting • PSP100 this code should be used when all of the spouting requires cleaning on a free-standing house • PSP110 is measured by the lineal meter and should be used on smaller structures or if the property is a duplex or twin unit.	**Job Code/s** PSP100-115 **ACM** 74.1 **MPWS** 7411
2.	**Unpainted Decking Wash** Chemically-wash all **unpainted** decking, stairs and balustrades.	**Job Code/s** DRE090 **ACM** 43.5 - 6 **MPWS**
3.	**Entry Steps & Balustrades** Contractor to identify and repair or replace any broken, unsound or missing entry or decking steps, balustrades or handrails.	**Job Code/s** CSA, CSB & **ACM** 53.5 – 6, 48.1 -2 **MPWS** 4851
4.	**Window and Door Glazing** Ensure all exterior door and window glazing is complete. If	**Job Code/s** GAA - GTW

	there is a crack longer than 140mm across the corner of a window the glass pane is to be replaced. Any replacement door glazing is to be toughened glass. Other replacement glazing > 0.5m^2 to be toughened glass.	**ACM** 46.1 **MPWS** 4611
5.	**Aluminum Glazing Beads & Seals** Replace broken and damaged aluminium window glazing beads or rubber seals.	**Job Code/s** CWA200-300 **ACM** 45.1 **MPWS** 4821
6.	**Hardware & Catches** Replace all broken window and door hardware and catches.	**Job Code/s** CHW & CHD **ACM** 55.7-8 **MPWS** 5521
7.	**Path Water Blast** Water-blast mossy or slippery paths.	**Job Code/s** KCX250 **ACM** 31.2 **MPWS**
8	**Subfloor Ventilation** Ensure all subfloor ventilation grilles are clear and functional.	**Job Code/s** CVX200 250 **ACM** 48.3 **MPWS** 3820 & 5521

4.6 Painting scope summary

All nominated works as listed below shall be reviewed and scoped for inclusion in the Painting Works Order.

No 1	Roofing – including flashing, capping's, soakers etc.	
A	**Concrete, masonry and clay tiles** Painted — No work required Unpainted **Please note:** Roofing tiles, especially older tiles, are fragile and require specialist access to avoid damage.	**Job Code/s** **ACM** 43.2
B	**Colour Steel** Factory Pre-finished — No work required	**Job Code/s** **ACM** 43.1
C	**Galvanised Steel** Painted or galvanised finish — Get roof report and submit to Housing New Zealand Scope to prepare and repaint (only if instructed). Include in pre-paint W/0	**Job Code/s** RMS050 & DRE800 **ACM** 43.1
D	**Fibre Cement Roofing** Unpainted — No work required Painted — Get roof report and submit to Housing New Zealand. Scope to prepare and repaint (only if instructed). Include in pre-paint W/0	**Job Code/s** RMS050 **ACM** 43.3
E	**Membrane Roofs** Unpainted and painted — No work required	**Job Code/s** **ACM** 44.1
F	**Aluminium Roofs**	**Job Code/s** **ACM**

No 1	Roofing – including flashing, capping's, soakers etc.		
	Unpainted	No work required	43.2
G	Pressed Metal Tiles		Job Code/s
	Stone Chip Pre-finished	No work required	ACM 43.2
H	Any Other Roof Advise Kāinga Ora and seek advice.		Job Code/s ACM 43.2

No 2	Spouting – Including Downpipes and Soil Pipes		
A	PVC Spouting		Job Code/s DRE900
	Unpainted	No work required	
	Painted	Prepare and re-paint	ACM 74.1
B	Galvanised Steel Spouting		Job Code/s DRE900
	Unpainted	Prepare and paint	
	Painted	Prepare and re-paint	ACM 74.1
C	Colour Steel Spouting		Job Code/s
	Factory pre-finished	No work required	ACM 74.1
D	Copper Spouting		Job Code/s DRE900
	Unpainted	No work required	
	Painted	Prepare and re-paint	ACM 74.1

No 3	Cladding – including soffits, barge ends, fascia boards, gable ends, base cladding, etc.		
A	Timber Weatherboard		Job Code/s DRE200
	Unpainted	Prepare and paint	
	Painted	Prepare and re-paint	ACM 42.1

No 3	Cladding – including soffits, barge ends, fascia boards, gable ends, base cladding, etc.		
B	Pre-coated Steel		Job Code/s
	Colour Steel etc.	No work required	ACM 42.8
C	Galvanised Steel		Job Code/s DRE200 - 200
	Unpainted	Prepare and paint	ACM 74.1
	Painted	Prepare and re-paint	
D	Roughcast, Stucco and Plaster Cladding		Job Code/s DRE310
	Unpainted	No work required	ACM 42.10 - 11
	Painted	Prepare and re-paint	
E	Concrete In situ and Brickwork		Job Code/s DRE300 - 310
	Unpainted	No work required	ACM 42.10
	Painted	Prepare and re-paint	
F	Brick or Stone Veneer		Job Code/s DRE310
	Unpainted	No work required	ACM 42.9
	Painted, plastered or bagged	Prepare and re-paint	
G	Fibre Cement Tiles – e.g. Duroc		Job Code/s DRE300
	Unpainted	Prepare and paint. Please note specific H&S issues	ACM
	Painted	Prepare and re-paint. Please note specific H&S issues	
H	Fibrolite Sheet or Weatherboard		Job Code/s
	Unpainted	No work required	ACM
	Painted	Prepare and re-paint	
I	Plywood Cladding and Battens		Job Code/s DRE300
	Unpainted	Prepare and paint	ACM
	Stained	Prepare and re-stain	
	Painted	Prepare and re-paint	

No 3	Cladding – including soffits, barge ends, fascia boards, gable ends, base cladding, etc.		
J	PVC or Vinyl		Job Code/s 42.2
	Prefinished	No work required	ACM
K	Soffits, Fascia and Bargeboards		Job Code/s DRE400 - 410
	Unpainted	Prepare and paint	ACM 42.4 & 42.7
	Painted	Prepare and re-paint	
L	Porches		Job Code/s DRE200 - 700
	All painted	Prepare and re-paint	ACM 42.1 - 11
M	Baseboards		Job Code/s DRE100
	All painted	Prepare and re-paint	ACM 42.3
N	Garages, Carports and Garden Sheds		Job Code/s DRE090 – 900
	Unpainted	No work required	
	Painted	Prepare and re-paint	
	Colour Steel	No work required	ACM 42.1 - 11
	Galvanised unpainted	No work required	
	Galvanised painted	Prepare and re-paint	

No 5	Exterior Stairs Decking and Fencing		
A	Concrete Stairs and Decks		Job Code/s DPE300 & DPE780
	Unpainted	No work required	
	Painted and sound	Prepare and re-paint	ACM 43.5 - 6
	Painted and unsound	Diamond Grind and leave unpainted	
B	Timber Stairs, Decks and Balustrades		Job Code/s DPE460 - 480
	Unpainted	No work required	

No 5	Exterior Stairs Decking and Fencing		
	Painted and sound	Prepare and re-paint	**ACM** 43.5 - 6
	Stained	Re-stain	
C	**Structural Steel, Balustrades, Posts, Beams**		**Job Code/s** DPE & DRE
	Painted	Prepare and re-paint	
	Galvanised	Leave as is – but prepare and paint any rust	**ACM** 43.5 – 6 & 48.1
D	**Timber Fencing**		**Job Code/s** DPE500 - 550
	Unpainted	No work required	
	Painted	Prepare and re-paint	**ACM** 84.1
	Stained	Re-stain	

4.7 Scoping requirements

Works Orders - Kāinga Ora requests four Works Orders be completed for each property, they are:

- **Pre-paint Works Order** – includes all remedial and maintenance works items e.g. repairing rotten window joinery, damaged cladding, house wash and chemical strip where required.
- **Painting Works Order** – includes all preparation, fill and sand as per the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)* and *Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime 2019/20*, for each property.
- **Dulux Warranty and Inspections Works order** – PBMC Contractor to inform Dulux about timeframe for all property painting so the appropriate Dulux Assessor inspections can be made and final Warranty forms and Works Order can be submitted by Dulux.
- **Associated Maintenance Works Order** – Scoper to address those items as listed in Section 4.5 of this document – Associated Maintenance Scope and scope for any repair or replacement on separate Associated Maintenance Works order.

Job Codes – The Exterior painting programme is to utilise the DRE (Paint House Exterior) Job Codes for the major works items (e.g. base, weatherboard, fascia, windows) and supported by the DPE (Paint Exterior Miscellaneous) Job Codes for other minor supporting items e.g. shed, carport, deck, fence, etc.

4.8 Scoping notes

The exterior paint works are further defined by the documents listed below. The current version of these documents is to be utilised to for all Exterior Paint scoping and works undertaken.

All Scopers, Contractors, tradesmen and associated parties are to have copies of, and/or immediate

access to, all this information on site and are to be working strictly in accordance with those instructions.

4.9 Kāinga Ora works specifications

General – Refer to Section 3.3 above and in particular the *Kāinga Ora Maintenance & Programmed Work Specification (M-215)* – Section 6700 Painting General, 6711 Painting Exterior and 6721 Painting Interior.

Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime 2018 - This document is used by the Dulux Assessor for both the pre-paint and post-paint inspections and is loaded into the Dulux Kāinga Ora database. It confirms the process for undertaking the various inspections required in order to achieve the Dulux Warranty. It also includes application guides for pre-paint and paint works orders.

Kāinga Ora Product Sheets – in particular *M-223 Dulux Product Images* (refer to the appendix) which identifies images, prices and SKU numbers of each product.

Kāinga Ora Exterior Colour Choices chart – provides eight Exterior house colour schemes for use when painting the exterior of properties. Refer to the *Kāinga Ora Colour Choices Charts*, which are in this document.

Please note – In accordance with the *Kāinga Ora Tenant and Contractor Agreement Form (M–323)*, Contractors are discuss with the tenant the selection of the appropriate Kāinga Ora colour scheme for existing stand alone one and two-level properties (excludes duplexes and multi- storey units) and confirm the selected scheme on form. The intention is to work with the existing colour scheme and local context as closely as possible.

For untenanted properties the Contractor shall select the appropriate colour scheme. For all duplexes, multi-storey units and three-level and taller buildings, the Housing New Zealand Asset Manager will provide the Contractor with an approved colour scheme for each project, to address any relevant issues such as: Significant, visually dominant buildings; heritage issues; local context; Resource Consent issues; Body Corporate and/or land covenants, etc.

4.10 Finish already acceptable (fencing only)

While the Contractor is requested to scope to repaint all pre-painted fencing surfaces, if the scoper finds the existing finish, or part of a finish is in good condition and is likely to be acceptable for a minimum of five years in the view of the qualified scoper, that item can be excluded from the new painting scope.

Right Photo - is an example of side yard fencing in acceptable condition (the left hand fence has been painted more recently and is in an acceptable condition) while the front fence is in poor condition and needs re- painting.

4.11 Well-painted property

Upon commencement of scoping any nominated property found to have exterior paint in good condition and not requiring any significant work (like those shown below), then the Kāinga Ora Planned representative is to be advised and an alternate property will be provided.

4.12 Nominated subcontractor / supplier details

The following nominated sub-contractor is to be used by PBMC contractors for the supply of all painting products to undertake the works, including all inspections required to complete the Dulux Warranty forms for each property:

- **Exterior Paint**: Dulux – National Contracts Manager – 9(2)(a)

  9(2)(a)

3. Scoping examples

3.1 Painted weatherboard house (HSS House Single Storey)

Item	Existing Finish	Wash	Finish Specification	Job Code
Whole House Wash	Any	Yes	Wash whole house(excluding roof)	DRE-090
Weatherboard Claddings	Painted	Yes	Prepare and re-paint	DRE-200
Timber Window Frames	Painted	Yes	Prepare and re-paint	DRE-600
Aluminium Front Door	Anodized/powder coated aluminium	Yes	Wash only (in house wash)	
Soffit, Fascia and Barge Boards	Painted	Yes	Prepare and re-paint	DRE 400-410
Gable Ends	Painted	Yes	Prepare and re-paint	DRE-400
Baseboards	Painted	Yes	Prepare and re-paint	DRE-100
Timber Entry Stairs and Deck	Painted	Yes	Prepare and re-paint	DPE 460-480
Timber Stairs and Deck	Unpainted	Yes	Was only (in house wash)	(In house wash)
Coloursteel Roofing	Pre-painted	No	Leave as is	

Item	Existing Finish	Wash	Finish Specification	Job Code
Galvanised Roofing	Unpainted	Yes	Get roof report. Scope for prepare and new paint	RMS-050 DRE-800
Galvanised Spouting (Exterior)	Painted	Yes	Prepare and new paint	DRE-900
Spouting (Internal)	Excluded	Yes	Clean out and wash	PSP-100
Timber Fencing	Unpainted	No	Leave as is	
Timber Fencing	Paitned	Yes	Prepare and re-paint	DPE 500-520
Letterbox – Galvanised	Prefinished	No	If existing acceptable, leave as is	
Concrete Path	Natural Concrete	Wash	Leave as is unless a health and safety issue	KCX-250
Vegetation	Remove vegetation including tree branches and leaves touching the house, garage or shed			YAA-300

3.2 Painted or stained plywood-clad house (HSS House Single Storey)

Item	Existing Finish	Wash	Finish Specification	Job Code
Whole House Wash	Any	Yes	Wash whole house	DRE-090
Plywood Sheet Cladding	Stained	Yes	Prepare and re-stain	DRE-300
Plywood Sheet Cladding	Unpainted	Yes	Prepare and new paint	DRE-300

Item	Existing Finish	Wash	Finish Specification	Job Code
Soffit Linings, Fascia and Barge Boards	Painted	Yes	Prepare and re-paint	DRE 400-410
Concrete Block Foundation	Unpainted	Yes	Leave as is	
Coloursteel Roofing	Powder coated	No	Leave as is	
Colorsteel Spouting (Exterior face)	Powder coated	Yes	Prepare and wash only (in house wash)	
Galvanised Spouting (Exterior)	Painted	Yes	Prepare and new paint	DRE-900
Spouting (Internal)	Excluded	Yes	Clean out and wash (inside)	PSP 100-110

Additional Notes

Unpainted Decking and Posts	Unpainted Timber decking and posts left as is, but to have chemical wash (as per House wash).	
Roof Wash	No – Colorsteel roofing so leave as is.	
Broken Glazing	Replace all broken glazing more than 100mm as per the *Housing New Zealand Maintenance & Programmed Work Specification (M-215)*	GAA – GTW
Aluminium Windows and Frames	Wash aluminium window frames and glazing within house wash.	
Vegetation Against Building	Remove any vegetation brushing the house.	YAA-300

3.3 Natural brick veneer house / flat (HSS / FTS House or Flat Single Storey)

Item	Existing Finish	Wash	Finish	Job Code
Whole House Wash	Any	Yes	Wash whole house (excluding roof).	DRE-090
PVC Spouting (Inside and Outside)	Un-Painted	Yes	Clear and Wash.	PSP 100-115
Natural Brick Veneer Cladding	Un-Painted	Yes	Leave as is.	
	Painted	Yes	Prepare & repaint.	DRE-310
Aluminium Door and Window Frames	All	Yes	Wash Included in whole house wash.	
Timber Door and Window Frames	Painted	Yes	Prepare & re-paint.	DRE-600
Hardies Soffit Liningsand Barge Boards	Painted	Yes	Prepare & re-paint.	DRE-400 & DRE-410
Hardies Soffit Liningsand Barge Boards	Un-Painted	Yes	Prepare & re-paint.	DRE-400 & DRE-410
Timber Fascia Boards	Painted	Yes	Prepare & re-paint.	DRE-400
Soffits	Painted	Yes	Prepare & re-paint.	DRE-410
Barge Ends Sheet Cladding	Painted	Yes	Prepare & re-paint.	DRE-400
Concrete Block Base	Painted	Yes	Prepare & re-paint.	DRE-100
Slab			Wash.	

Item	Existing Finish	Wash	Finish	Job Code
Timber Entry Ramp and Balustrade	Painted	Yes	Prepare & re-paint.	DPE 460-480
Galvanised Balustrade and Handrail	Un-Painted	Yes	Washed included within House Wash.	
Concrete Tile Roofing	Natural	No	Leave as is.	
Decromastic Tile Roofing	Natural	No	Leave as is.	

3.4 Painted and un-painted Fibrolite / Duroc siding clad house (HSS House Single Storey)

Item	Existing Finish	Wash	Finish Specification	Job Code
Whole House Wash	Any	Yes	Wash whole house (excluding roof)	DRE-090
PVC Spouting (Inside and Outside)	Unpainted	Yes	Clear and wash	RSP100-115
Fibrolite/ Duroc Claddings	Unpainted	Yes	Prepare and new paint **Please note**- specific health and safety issues	DRE-300
	Painted	Yes	Re-paint	DRE-300
Timber Window Frames	Painted	Yes	Prepare and re-paint	DRE-600
Timber Door and Frames	Painted	Yes	Prepare and re-paint	DRE-700

Item	Existing Finish	Wash	Finish Specification	Job Code
Soffit Linings, Fascia and Barge Boards	Painted	Yes	Prepare and re-paint	DRE-400 & DRE-410
Gable Ends	Painted	Yes	Prepare and re-paint	DRE-400
Carport Posts and Beams	Painted	Yes	Prepare and re-paint	DPE120-130
Concrete Plaster Foundation	Painted	Yes	Prepare and re-paint	DRE-100
Concrete Entry Stairs and Slab	Painted	Yes	Prepare and re-paint	DPE-300
Concrete Tile Roofing	Natural	No	Leave as is	
Vegetation	Remove any vegetation brushing the house			
Timber Fencing and Letterbox	Painted	Yes	Prepare and re-paint (if required)	DPE500-520
Broken Glazing	Replace all broken glazing more than 100mm as per the *Housing New Zealand Maintenance & Programmed Work Specification (M-215)*			GAA-GTW
Aluminium Windows and Frames	Wash aluminium window frames and glazing within house wash			
Vegetation against building	Remove any vegetation brushing the house			YAA-300

3.5 Un-painted Duroc clad Duplex house (TUS twin unit single storey)

General Notes

Wash whole house including spoutings and downpipes and carport.

Please note – Health & Safety precautions for Duroc siding cladding.

Prepare and paint all unpainted Duroc claddings, timber joinery, painted baseboards.

No works to concrete roof required (Chimney to be left up-painted).

3.6 Painted weatherboard and brick base two-level flats (TUD Twin Unit Two Storey)

General Notes

Wash whole house including ground- floor brickwork, spouting and carport.

Prepare and paint all existing painted surfaces, weatherboard cladding, timber joinery, spoutings, downpipes, stained entry pergola and carport.

Please note – no works to unpainted timber fencing and galv. steel roofing required.

3.7 Painted weatherboard and brick base two-level flats (FTD Flat Double Storey)

General Notes

Wash whole house including ground- floor brickwork, spouting and carports.

Prepare and paint all existing painted surfaces, weatherboard cladding, timber joinery, spouting, downpipes, stained entry pergola and carport and include repainting timber fencing.

Please note – remove redundant fire escape ladders.

3.8 Painted weatherboard two-level house (HSS HSM House Multi Storey)

General Notes

Wash whole house including ground floor unpainted carport and spouting.

Prepare and paint all existing painted surfaces, weatherboard cladding, timber joinery, spoutings, downpipes, etc.
Leave unpainted timber carport unpainted.
Prepare and repaint painted timber fencing.

Please note – remove redundant fire escape ladder.

3.9 Painted concrete and Fibrolite star-block flats (FTM Flat Multi Storey)

General Notes

Wash whole building including aluminium windows and glazing, terraces, unpainted concrete decking, balustrades and supporting galvanised frames, downpipes and spouting.

Prepare and paint all existing painted surfaces, including concrete panels, fibrolite sheet cladding, timber joinery, downpipes, etc. Leave unpainted concrete deck balustrades, and fencing.

Please note – washing and painting of all roofing for all three level and higher properties is included within this generic exterior paint scope.

Refer to section 4.1 of this document – Scoping Outline, regarding Dulux additional notes for these three level and higher properties.

4. Exterior paint colour choices

Colour Option One

STEPS & PORCH

Porpoise

Fascia boards, windows and door surrounds are **Sandfly Point**

DOORS
Entry and back door options (not facing boards) includes door sill

Rangatawa | Rawene | Sandfly Point | Monks Bay

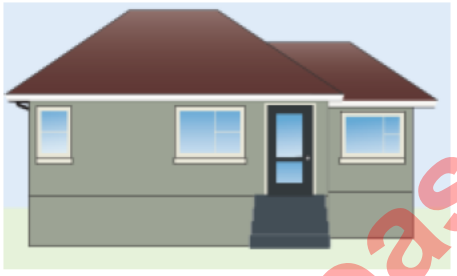
ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Thunder Grey | Scoria | Lichen

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Willow Flat

Colour Option Two



DOORS
Entry and back door options (not facing boards) includes door sill

Lake Mangamahoe | Rawene | Monks Bay | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Sandstone Grey | Scoria | Thunder Grey

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Kapiti

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

Stoney Beach | New Denim Blue

Colour Option Three

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Half Sugarloaf Island

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

Porpoise | New Denim Blue

DOORS
Entry and back door options (not facing boards) includes door sill

Lake Mangamahoe | Monks Bay | Rawene | Rangataua | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Desert Sand | Sandstone Grey | Scoria

Colour Option Four

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Half Puhoi

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

Stoney Beach | New Denim Blue

DOORS
Entry and back door options (not facing boards) includes door sill

Rangataua | Lake Mangamahoe | Monks Bay | Rawene | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Sandstone Grey | Thunder Grey | Lichen

Colour Option Five

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Narrow Neck

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

Porpoise | New Denim Blue

DOORS
Entry and back door options (not facing boards) includes door sill

Rangatoua | Rawene | Monks Bay | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Lichen | Sandstone Grey | Scoria | Thunder Grey

Colour Option Six

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Narrow Neck

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

New Denim Blue | Porpoise | Stoney Beach

DOORS
Entry and back door options (not facing boards) includes door sill

Rangatoua | Rawene | Monks Bay | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Lichen | Sandstone Grey | Scoria | Thunder Grey

Colour Option Seven

WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Opononi

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

Porpoise | New Denim Blue

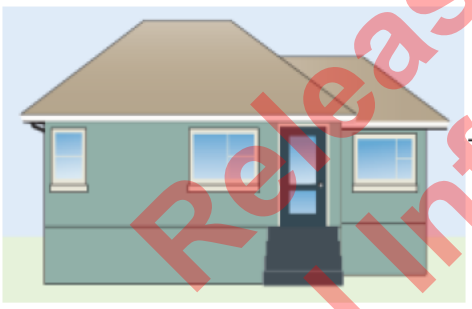
DOORS
Entry and back door options (not facing boards) includes door sill

Lake Mangamahoe | Rangataua | Monks Bay | Rawene | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Desert Sand | Sandstone Grey | Scoria

Colour Option Eight



WALLS
Including base wall & scribers, corner trims & associated trims on cladding

Wanui Beach

Fascia boards, windows and door surrounds are **Sandfly Point**

STEPS & PORCH

New Denim Blue

DOORS
Entry and back door options (not facing boards) includes door sill

Rawene | Lake Mangamahoe | Rangataua | Sandfly Point

ROOF
Metal roof, applicable when re-roof (or re-paint)

Gull Grey | Desert Sand | Sandstone Grey | Scoria | Lichen

5. Records

Retain all records within Kāinga Ora's records system - refer 'Records retention and disposal' (R-105).

6. Version control

Details of previous versions are stored in Kāinga Ora's document management system (Objective). Refer to header and footer information for reference document elements or for any queries contact OurSpace@kaingaora.govt.nz.

Appendix

The following Kāinga Ora colour choices, supplier's product information and application instructions are appended for reference –

- *Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime 2019/20*

Please note – All scoping to be undertaken in accordance with theses documents.

Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime 2019/20

M-240 Exterior Paint Scoping Guide 2019-20
1 October 2019

Contents:

M-240 Exterior Paint Scoping Guide 2019-20
1 October 2019

Overview

This Dulux Kāinga Ora Exterior Paint Warranty and Inspection Regime supports the Kāinga Ora exterior painting programme and sets out the process for inspecting and warranting the exterior paint work performed on a property by a PBMC painting contractor or sub-contractor.
The paint inspections will be carried out by Dulux, or its agent. The paint inspections will be completed with both the Dulux Assessor and the Head Contractor's paint supervisor.
This manual is the guide for the Dulux Kāinga Ora Exterior Paint programme and identifies,

- who is responsible for what parts of the programme?
- what is required at each stage of the process
- what each participant's role is in the inspection process.

Included in this manual is the **Schedule for Allocation of Paint Defect Responsibility**. This is to give the Head Contractor a clear understanding of who is responsible should defects in the Exterior Paint occur during the warranty period.

The Inspection Process

The chart on the following page provides the overview of the process.
Below is the basic outline of this process, under which the Head Contractor (possibly via a sub-contractor):

- Scopes the property
- Preps the property to specification.
- Informs their Dulux Assessor that the property is ready for inspection
- Once the property passes the Pre paint inspection, the top coating can begin.
- Once the entire job is finished, informs Dulux Assessor that the property is ready for a Post Paint Inspection.

M-240 Exterior Paint Scoping Guide 2019-20
1 October 2019

Inspection Process

Scope and Pre paint Inspection	Post paint inspection	Rectification process (if required)	1 year warranty inspection
Head Contractor scopes and preps the Property. Informs the Dulux Assessor when property is ready for pre paint inspection **(48 hours notice required)** Dulux Assessor inspects property with Head contractor If passed, painting of top coats can begin.	Once the property is 100% complete, the Head Contractor informs the Dulux assessor the property is ready for inspection. **(48 hours notice required)** If passed the property is Now in the Dulux warranty programme.	If the property fails an inspection at any stage then a rectification form is to be completed. See section on rectifications.	The property will be inspected on the or around the 11 month mark to assess if it still meets the Dulux warranty criteria. If the property has defects at this stage the warranty form will be sent to the Head contractor on the weekly report, with the noted defects. The contractor will rectify the defects and inform the Dulux contracts manager the process is complete.

Responsibilities

Dulux Contracts Manager:

- Overall responsibility for the Kāinga Ora contract and main contact for the programme
- Creation and updating of specifications (in collaboration with Kāinga Ora)
- Start-up Meetings, held with Head Contractors
- Training
  - Head Contractors supervising and administrating staff
  - Sub Contractors, supervising and administrating staff.
  - All Tradespeople
  - All Dulux Assessors
- Responsible for Dulux Assessors, including ensuring the inspections are completed and the appropriate quality control of the inspection regime.
- Main Contact for Kāinga Ora Management
- Main Contact for Head Contractors
- Management of the Database
- Reports to Kāinga Ora
- Reports to Head Contractors (Warranty Rectifications and Defects)
- Management of Warranty Rectification process
- Management of defect notifications received from Kāinga Ora over the course of the life of Warranties, including adjudication in case of dispute over application of the Warranty.

Dulux Assessor:

- Ensure assessments are carried out as per the Dulux Kāinga Ora Exterior Paint programme documentation.
- All inspection and related documents loaded into Database
- Inspections are on time and carried out effectively
- Maintain a high standard of inspections
- Technical advisor on Warranty defect notifications
- Maintain regular contact with Head Contractor and Trade
- Report any technical problems to the Dulux Contracts Manager
- Attend all training as required
- Ensure Dulux products are used

Head Contractor:

- Appoint a Quality Supervisor to be the point of contact for the Dulux Assessor **and ensure that this Supervisor is available for Pre and Post Paint Inspections**.

- Key information must be available to the Dulux assessor at the Pre paint inspection, specifically the Property ID and Sub Contractors ID (their Dulux account number). In particular, responsibility for information both as to the nature of the Pre paint preparation, and authorisation for projects which involve a full paint strip.
- Ensure all appropriate tests have been completed by the Pre paint inspection,
  - Lead test
  - Adhesion test (cross hatch test)
- Ensure Chemical Wash has been completed; proof may be required
- Contact Dulux Assessor when a Pre Paint Inspection is required, giving 48 hours' notice, and when a Post paint inspection is required, Houses must be 100% complete to be considered for the Dulux Kāinga Ora Warranty
- Ensure all relevant staff have attended the Start-up meeting
- Ensure all painters wear ONLY Dulux branded clothing, NO other branding by other paint manufacturing company is to be allowed to be worn. Non branded clothing or Head Contractors branding is acceptable. Dulux is happy to discuss costs of a Dulux logo on Head Contractor clothing.
- Ensure all painters display their Kāinga Ora Photo ID
- Ensure all Staff and sub-contractors fully understand the Specifications and Documentation process
- Ensure all codes of conduct are followed on site
- Pay Dulux for any re-inspections required as a result of poor workmanship or other matters in the direct control of the Contractor.

The Kāinga Ora Exterior Paint Project Quality Warranty

The Kāinga Ora Exterior Paint Project Quality Warranty cover is as follows:

- The period of the Quality Warranty is 10 years, or in the event that the Pre paint preparation process involves a full strip of the surface to be painted, the Quality Warranty period is 15 years.

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- The Warranty covers both the quality of the paint products used, and the workmanship in the paint project from the preparation phase through to completion of

the application of the paint to the surface to be painted and as per the schedule of allocating defect responsibility, on page 14.

- The Warranty requires the Head Contractor to make good any defects discovered during the Warranty period that are the fault of the Head Contractor.

- The Quality Warranty applies to the specific Property being painted, and comes into effect on the certification of the post paint inspection.

Dulux Warranty Database

All documents and forms will be held in the Dulux Warranty Database, which is able to hold in excess of 69,000 property files. Each property file will hold the Pre and Post Paint Inspection forms, along with any Rectification forms. This information will be used to validate properties that are accepted into the Dulux Warranty and will be required to be present, before a Head Contractor can request payment for their top coat work request. The database will be able to be accessed by Kāinga Ora to review process on a particular property.

The property ID is the key to the system and must be on all inspection forms.

Exterior Paint Inspection Form

All forms are completed on the Dulux Property Paint Inspection App by the Dulux Assessor. Example of form displayed on the next page.

The Contractor's Supervisor is to sign the electronic form as they have in the past signed the hard copy form, and all of the forms and the information will be loaded into the Dulux database.

Dulux requires the form to be signed as it signifies the acceptance of the sign off sections. (See section detailing the sign off required, later in this manual).

Exterior Paint Inspection: Pre Paint

Assessor 9(2)(a)
Date 1/4/2015
Property ID BLD 0000001
Property Address 9(2)(a)
Contractor 6100
Supervisor
Inspection Type (•) Pre Paint ( ) Post Paint ( ) Rectification
Sub Contractor

Main House Inspection

	Pass	Fail		Pass	Fail
Chemical Wash Completed	✓		Scribes		✗
Adhesion Tests Completed		✗	Soffits	✓	
Lead Tests Completed	✓		Doors		✗
Full Strip Completed		✗	Main Substrate	✓	
Steps	✓		Facings		✗
Meter Box		✗	Soakers Flat	✓	
Gas Meter Box	✓		Soakers Corner		✗
Porch		✗	Barge Board	✓	
Hand Rail	✓		Gable End		✗
Deck/Pergola		✗	Base (2x coats)	✓	
Deck Rails	✓		Base Door		✗
Screws/Nails		✗	Down Pipes	✓	
Toilet o/f Pipe	✓		Spouting		✗

Windows

	Pass	Fail		Pass	Fail
One Step (TU3)	✓		Adhesion Test	✓	
General	✓		Mapping	✓	
Hinges	✓		Flashings	✓	

Delete OK

Sign Off Section

The following is an explanation of what the Head Contractor is agreeing to by marking the box alongside each of the following sign offs on the Dulux Exterior Paint Inspection form and signing either a hard copy or electronic form:

Dulux Products Used:

By marking this sign off, the Contractor agrees that they have used only Dulux Products which have been purchased from a Dulux Trade Store or a Dulux Trade Depot. Proof of purchase, in the form of a Dulux invoice, may be requested at the Pre and Post Paint inspections, or if needed to determine liability should a defect occur within the warranty period.

Specification Followed:

By marking this sign off, the Contractor confirms that both the Contractor and its Sub Contractor have followed the agreed Dulux Kāinga Ora specifications, policies and codes of conduct in the performance of the work. If the Contractor has not followed the specifications, this must have been agreed to by Dulux and Kāinga Ora, in writing, before commencement of work.

Contractor Accepts Conditions of Quality Warranty:

By marking the "Contractor accepts the Quality Warranty", the Contractor agrees to the following for the period of Quality Warranty for the Property:

- That it undertakes that its work will not be deficient due to commission, omission, negligence or otherwise on the Contractor's part or the part of its employees, agents or sub–contractors.
- That it undertakes to make good any deficiency arising within the Quality Warranty period, upon notification to the Contractor of the deficiency.
- To indemnify and keep indemnified Kāinga Ora against all losses and expenses it may incur through its failure to observe or perform its obligations under the Quality Warranty.
- That neither the undertaking nor the indemnity will be affected by any other arrangement or exercise of rights and obligations as between the Contractor and Kāinga Ora.
- That its liability shall continue even in the event that the Contractor may be declared insolvent or is wound–up.

Chemical Wash Sign Off:

The Head Contractor will **not** be required to supply a form or invoice to Dulux or Kāinga Ora confirming a Chemical wash has taken place. However, when the Sign Off section of the form is completed, the Contractor will be deemed to have accepted responsibility for a Chemical wash to have taken place. If a defect occurs, and Dulux has reasonable cause to believe that it may be due to the Chemical Wash having not been completed, the Contractor will be asked to provide proof of a Chemical wash, or the defect may be considered their responsibility to rectify. It may be in the Head Contractor's best interest to require proof from their Chemical wash subcontractor.

Tests Sign Off:

By marking the tests as signed off, the Head Contractor has agreed that appropriate tests, as described in the specifications and policies, have been completed. Again, proof will not be required at the time the form is completed, but proof of tests will be helpful to prove liability should a defect occur during the 10 Year warranty period.

Pre Paint Inspection

This inspection is carried out by the Dulux Assessor, in conjunction with the Head Contractors paint supervisor, and is to check that the preparation has been completed in a tradesman like manner and to ensure that

- specification has been adhered to
- property has been fully stripped, if approved.
- no defects are present
- was a full prime approved
- Dulux prep and primer Products were used
- all sign offs are agreed to by the Head Contractors supervisor.

To schedule this inspection with the Dulux Assessor, the Head Contractor must inform the Dulux Assessor the property is ready for a Pre paint inspection, giving 48 hours' notice*. The Head Contractors Quality Supervisor or paint supervisor must be present at the inspection. The contractor is not to proceed to post paint stage, until the property has passed the pre paint stage and payment will not be made until it passes this stage.
* Some areas will be subject to a 3-day notice period, due to their location.

M-240 Exterior Paint Scoping Guide 2019-20
1 October 2019

Post paint Inspection

This inspection is carried out by the Dulux Assessor in conjunction with the Head Contractor's paint supervisor and is to check that the top coats have been completed in a tradesman like manner and to ensure that

- specification has been adhered to.
- no defects are present
- Dulux Products were used

- all sign offs are agreed to by the Head Contractor.

Warranty Inspection including year one

Dulux Assessors will carry out one Warranty inspection, at or around the 11-month mark of the property passing its Post Paint inspection. Kāinga Ora and Dulux reserves the right to inspect the property at any other time during the Warranty period.
If a defect is found at the one-year warranty inspection or at any other time, by Dulux or Kāinga Ora assessors, then Dulux will notify by email the Head Contractor of the defect, these defect notifications will be sent weekly.
Within 10 working days, the Head Contractor is required to visit the property and complete the Rectification part of the form. If the defect is found to be Head Contractor's liability, as per the schedule of defects, then the Head Contractor (or sub-contractor) will rectify the work to standard and the Rectification Form will be returned to Dulux and loaded into the database. Kāinga Ora's expectation is that the Head Contractor will oversee the quick and efficient oversight of this Warranty responsibility, but in any event within no later than a further 15 working days.
Upon inspection of the defect by the Head Contractor, if the defect is considered by the Head Contractor to be a defect which is due to tenant damage, or is a maintenance issue, rather than a Warranty issue, the Head Contractor is required to forward evidence to back its view to the Dulux Contracts Manager. The Dulux Contracts Manager will consult with Kāinga Ora to determine tenant damage. Upon allocation of responsibility by both Kāinga Ora and Dulux, the Head Contractor will be informed of the decision, and the decision will be noted as such in the database. In the event that there is a defect covered by the warranty, Dulux will ensure that the remediation work is completed promptly.
The Dulux Assessor will return to the property to carry out another inspection, when the defect is rectified and approved the rectification work.
If Dulux Warranty one-year inspection is missed or is late with the inspection. The Warranty still stands. (e.g. if rot is found two or three years down the track and there is no recorded one-year inspection then the liability reverts to the first/previous inspection.)

Defect Evidence Records

Exterior Paint Inspection Form recording 'failed', along with any further notes and or pictures, must be filed with Dulux and copies made available on request to Kāinga Ora or the Contractor.

Rectifications

If the property fails a pre or post paint inspection, the exterior form will be marked as a rectification form. This will only be done when the Dulux Assessor is required to return to the property to carry out another inspection, if the defect is rectified while the Dulux assessor is on site and meets the approved standard, then the property will be passed.
If a Dulux assessor is required to return to the property to carry out another inspection, the Head Contractor will be invoiced for the cost of that inspection, by Dulux.

Schedule allocating Paint Defect Responsibility

Dulux Kāinga Ora Exterior Paint Programme

Contractor Liability under Dulux Warranty	Dulux Liability	Kāinga Ora Liability
Lack of adhesion of new paint coats due to dirt and lack of abrasion	None	Lack of adhesion in original coats due to Kāinga Ora declining a paint strip where a valid recommendation to strip has been submitted by the contractor.
Lack of adhesion due to body fats on handrails, doors and entry side panels.	None	None
Lack of adhesion due to lack of primer	None	None
Bubbling of paint in original coats due to lack of adhesion (base coat delamination) when a strip was not requested, but needed*.	None	Bubbling of paint due to moisture from inside of structure. Non-authorization of strip when it was needed*.
Bubbling of paint in new coats due to lack of adhesion (new coat delamination)	Dulux share responsibility	Bubbling of paint due to moisture from inside of structure.
Rot where it appears in less than 18 months	None	Rot appearing after 18 months (Only determined new rot. Not rot around where previous remedy work had been carried out at the pre-paint stage)
None	None	Cracking of paint on timber window joints
Cracking of paint around windows	none	Cracking of paint around windows where evidence of interior moisture is damaging timber.
Large amounts of filler used to repair rot rather than treated timber replacement	None	None
None	Paint material failure	None

***Need for a strip is defined by the Paint Strip Request Process.**

Schedule allocating Paint Defect Responsibility

Responsive Paint Maintenance

Contractor Liability under Dulux Warranty	Dulux Liability	Kāinga Ora Liability
Lack of adhesion due to dirt and lack of abrasion	None	Lack of adhesion in original coats due to Kāinga Ora declining a paint strip where a valid recommendation to strip has been submitted by the contractor.
Lack of adhesion due to body fats on hand rails, doors and entry side panels.	None	None
Lack of adhesion due to lack of primer	None	None
Bubbling of paint due to lack of adhesion	None	Bubbling of paint due to moisture from inside of structure
Rot where it appears in less than 18 months	None	Rot appearing after 18 months
None	None	Cracking of paint on timber window joints
Cracking of paint around windows	None	Cracking of paint around windows where evidence of condensation soaking into sash rails
Large amounts of filler used to repair rot rather than treated timber replacement	None	None
None	Paint material failure	None

Training and Support

Pre Start Meeting & Specification Training:

There will be a pre start & specification meeting held with the Head Contractor's Supervisor, Admin Staff and sub-contractors, to communicate the process for the season and any changes made from the previous season. Training will involve all participants in the exterior painting programme and will focus on the correct use of Dulux products, as per the specifications and policies of the programme.

Spray and Other Special Training:

Spray and other training can be requested by the Head Contractor; to be provided by Dulux. All participants who pass the various training programmes, will receive a certificate. Personnel who spray paint Kāinga Ora properties must hold a Dulux current certified or produce evidence they have been fully trained in applying paint by spraying.

Payment

Once the property has passed its Pre Paint Inspection, the Head Contractor should submit to Kāinga Ora their request for payment against the open paint work order, electronically. This process is then repeated, once the property has passed its post paint inspection.
Kāinga Ora staff will be able to view the property file in the Dulux inspection database and confirm if the property has achieved a pass at both pre and post paint stages, payment will not be authorized until a pass is achieved at either stage.

Contacts:

For all enquiries regarding Technical, Database and Specifications, contact:

9(2)(a)

M-240 Exterior Paint Scoping Guide 2019-20
1 October 2019

Appendix 1-

Application Guide (Pre-Paint and Paint)

M-240 Exterior Paint Scoping Guide 2019-20
1 October 2019

Overview:

This Pre paint application guide must be read in conjunction with the Paint Specification issued June 2017 by Kāinga Ora (special attention being paid to Kāinga Ora Lead-Based Paint and Asbestos Codes of Conduct).

This guide is to be issued by all Head Contractor and Sub-contractor staff. The guide details the process for particular applications to conform with Kāinga Ora Specifications and Dulux Warranty requirements. In all cases, tradesman-like standards of pre-paint and paint work are applicable (refer AS/NZS 2311 – Guide to Painting of Buildings, AS/NZS 2312).

With regards to unpainted and painted substrates, Kāinga Ora (through the Head Contractor) will provide instructions of what will be or not be painted on the property in the form of a scope of work. The scope of work for each property is to be developed by reference to the exterior paint scoping guide.

Manufacturer's Specifications:

All paint and pre-paint products must be applied according to the manufacturer's product specifications. Contractors are responsible for ensuring they understand and comply with all product specifications.

Application:

Painting is by brush only, unless permission is granted by Dulux to use another method. Spray painting requires a spray painting certification and this requires the sub-contractor to attend a training course.

Paint Conditioner:

The additive **Floetrol Paint conditioner** is to be added to the **Dulux One Step** and **Dulux Weathershield X10** Acrylic at the rate of 10%, to a 10 litre container, eg-1 litre. Floetrol assists water-based paints to flow-out and level off like oil-based, acting as a conditioner. Follow the manufacturer's instructions at all times. The advantages of using Floetrol are:

- Longer wet edge
- Avoids lap and brush marks
- Stops paint pulling and dragging
- Assists coverage
- Assists self-levelling
- Avoids paint build up on brush
- Stops bristle separation

Do not over brush, simply apply, and then layer off.
Not required if the method of application is spray painting.

Paint containing lead:

HS 214 Paint Containing Lead Management and Control Policy, please this document, as following is an overview only.
All paint on Kāinga Ora properties must be treated as containing lead if built prior to 1st January 1997 unless testing proves otherwise. Identification of lead should be undertaken in accordance with Section 2 of *AS 4361.2*.

AS 4361.2 outlines three options for the detection of lead:

chemical colorimetric (colour change) field tests

portable X-ray fluorescence (XRF) field tests

laboratory analysis.

Testing should be conducted on each layer that will be disturbed during works. Where different painted components and elements are present enough samples must be collected to be representative. This may result in more than one sample being taken from the surface type. Refer to *AS 4361.2* for further details regarding sampling and identification.

Identification records: Test results must be recorded using the HS-314 Lead Identification Form and retained on site. The completed form must remain on site for the duration of the work regardless of the test result.

Removal methods permitted

It should be noted that removal methods have the greatest potential to create dust and thus risk to health. The following removal methods are permitted at Kāinga Ora owned or managed properties:

- wet scraping
- chemical strippers
- wet hand sanding
- low-temperature heat gun processes under 200c
- dry power sanding with a HEPA attachment
- replacement of material (particularly useful where multiple risks are present such as PCL and asbestos interfaces).

Dry power sanding with a HEPA attachment is permitted only if no visible release of dust occurs outside of the containment system. To ensure adequate dust control is achieved the PCL contractor shall undertake air monitoring to verify the equipment used is effective.

Detailed guidance for the application of these methods is given in *AS 4361.2*.

Preparation:

Ensuring all tenants, general public and pets are excluded from lead removal areas. For lead removal work where measures to protect the occupants cannot be adequately managed on site temporary relocation may be required

- removing furniture and all soft furnishings where practicable
- covering and sealing any items that cannot be removed with plastic sheeting
- removing all food and medicines
- considering the weather and avoiding working during windy conditions (including interior work if draughts)
- wearing an appropriate respirator in accordance with *AS/NZS 1715:2009*
- wearing disposable PPE including boot covers and overalls which are removed prior to leaving the work area
- using plastic sheeting to cover the ground. For exteriors the sheeting edges should be turned by 100 mm or greater to capture any water
- repairing or replacing plastic sheeting as any tears occur
- sealing all openings to and from the work area including windows, doors and air ducts (for both exterior and interior work)
- removing waste and debris on a frequent basis using a commercial vacuum with a HEPA filter
- wiping down all surfaces with a damp cloth and detergent following vacuuming
- collecting water from wet processing to be disposed of as contaminated waste.

Clean up:

surface cleaning and waste removal from the work area as part of daily activities as well as at the completion of the removal work

double bagging disposable items and waste

using a commercial vacuum with HEPA filter on all surfaces

washing all surfaces with detergent solution followed by rinsing and drying

repeating HEPA vacuuming to capture any remaining residues or debris.

Waste disposal:

ensuring all paint debris containing lead and associated items are removed from the property and disposed of as contaminated waste to an appropriate landfill as per Local Authority guidelines. Waste must not be burnt

detailing evidence of the waste disposal method used in HS-315 Lead Removal Control Plan

Part B.

Clearance testing and assurance monitoring

Prior to reoccupation of the area where paint removal or management is being undertaken, clearance testing including soil and surface dust should be undertaken where necessary in accordance with *AS 4361.2.*

As stated on page 44 of *AS 4361.2* "If only dust free methods were used and no dust is visibly present after completion of work dust sampling may not be necessary".

For Kāinga Ora properties dust and/or soil sampling should be undertaken if any signs of insufficient controls are identified including:

- use of removal methods not permitted at Kāinga Ora properties
- visible signs of insufficient containment, such as unrepaired tears in plastic sheeting and lack of seals on openings
- visible signs of contamination such as chips, dust, debris, spills or stains from paint removal.

Signs of insufficient controls as listed above should be checked for by the certified lead abatement contractor with additional assurance checks carried out by a Kāinga Ora rep.

Substrate Pre-Paint Preparation:

Contractors are responsible for ensuring the existing substrate is prepared to a standard that will continue to adhere for 10 or 15 years after the application of the new topcoats.

Cross Hatch Test:

If the contractor has any concerns regarding existing paint adhesion, lasting 10 years the following test needs to be carried out. Perform the cross hatch test as described below, this test is part of the test method as detailed in AS 1580.408.2 – 2004 Adhesion – knife test.

A cross hatch test is required to test whether the existing paint surface is suitable for the new coats to adhere too.

Dulux requires this test be carried out on all Kāinga Ora properties that are to be re painted, as it is the Head Contractor's responsibility to ensure the new coats adhere for 10 years on a repainted property. This test is also use to determine if a property, or part of the property is to be stripped.

If the contractor still has concerns regarding the paint adhesion, then they should contact Dulux regarding their concerns.

Test method:

Hold the blade against a straight edge and at right angles to the coated surface. Incline the blade at an angle of 30º in the direction of the cut and using a single stoke, scribe a cut 25mm long through to the substrate.

Make a second cut so it intersects the first line so you have formed a X.

Then using the blade gently lift the coating at the point of the intersection. Do not apply

force to the point of the blade. If the existing coats lifts off at the intersection point, then the coatings are not being suitable for re coating.

This test is an indication only and if unsure, more investigation needs to be done if the substrate is suitable to take the new coats, Dulux can help assess problem properties.

Chemical Wash:

The primary purpose of chemically cleaning painted surfaces is to provide a surface free of contaminants and dirt which detract from or lessen the adhesion and longevity of all new coatings.

It is essential that a thorough check of each site is made prior to cleaning, and after cleaning by the Contractor supervisor. This is to ensure all areas are to the contract standard, and that any corrective action is taken for any substandard area prior to allowing any other works to take place.

Chemical wash all areas of the nominated property exterior – i.e. wash both painted and prefinished external cladding materials e.g. brick veneer, stone facings, alum windows, glazing, garage doors, exterior face of spouting's.

Apply diluted cleaner (using a low pressure application 150 PSI) to one wall of the house at a time. Do not allow any area to dry off.

A second application and clean may be necessary to some areas of stubborn mould and algae (e.g. concrete bases, Duroc sidings).
The approved cleaning agent to be used is:

- Dulux Prep Wash
  Mixing Ratio 1:1

MAXIMUM PRESSURE

Previously unpainted asbestos, including corrugated roofing, Duroc siding, flat sheets

- Mains pressure only (garden hose) a soft broom may be used

Windows and doors - Mains pressure only (garden hose)

Main substrate/cladding - No more than 1500 PSI (15 litres per minute)

Roofs and gutters - No more than 2000 PSI (15 litres per minute)

Steps, bases, fences - No more than 3000 PSI (15 litres per minute)

Asbestos codes of conduct apply for Duroc sidings and it is important that the asbestos substrate is not damaged or torn in any way during process

Chemical Strip:

A property should be cross hatch tested to ascertain if a strip is required. A cross test should be carried out on all sides, to determine if all sides need stripping, refer to the cross hatch test section. The approved product for a chemical strip is any commercially available

product that does not contain Methylene Chloride, at all times follow the manufacturer's instructions.

Preparation

- Do not wash the substrate, chemically wash after the strip has been completed
- Cover all surrounding ground 1.2 metres out, and secure to the ground.
- Check all doors and windows, and that all openings are secure.
- Install plastic air tight covers to the inside of window frame, include doors as necessary. This seal must not be interfered with until all stripping has taken place, and the immediate area cleaned of all debris and dust.
- Dress in appropriate protective clothing, test-strip an area of one m2 first to gauge how quickly the chemical will react to the old coating. This will enable you to determine the correct timing of the chemical reaction, saving time overall in deciding your best option.
- Spraying the stripper delivers more efficient and effective use of the product than conventional brushing of the product to the substrate. It is not the quantity on the timber that is effective, it is the even spread of product that will produce the best and most cost effective results.
- Remove excess de-laminating dry paint flakes carefully with a broad putty knife.

- Spray stripper to substrate, one side at a time, ensuring even coverage of product. Allow penetration time, and then remove old coating using a broad metal blade, do not allow to dry. On fibreboard /duroc products (asbestos) special care is further needed and a plastic broad blade should be used.
- Remove debris as you go from your ground cover sheets then remove plastic ground covers and replace with a fine mesh gauze and fix to the ground.
- If on removal of the de-laminating coatings you find further coatings still remain, and they are firmly adhered to the substrate, then these coatings should NOT require further removal.
- A crosshatch adhesion test should then be necessary if the contractor has any doubts regarding adhesion.
- Chemically Wash substrate down allowing the cleaning chemical to penetrate the residue, then using no more than hose pressure remove all traces of the chemical stripper - stand well back from the substrate allowing only a fine mist spray to remove any residue.
- It is critical that water does not penetrate the timber surface to the extent that it requires days of drying before it can be re-coated. Allow to dry thoroughly before starting pre-paint/substrate works.

Preparation of a sound substrate:

- Do not fill any minor splits and cracks. Instead, use Dulux Professional Ultrasmooth Timber Surfacer, allow 4 hours drying, sand smooth.
- Larger splits and cracks, e.g. 2mm or more, are to be filled using- Haydn Professional Filler. Allow to dry as per manufacturer's instructions.

- Spot prime with Dulux One Step Primer with the additive Floetrol paint conditioner at the rate of 10%.: Note: ensure sufficient film build is achieved, 25 Micron.
- Apply two full coats of- Dulux X10 Weathershield plus Floetrol Conditioner. (10%)
- Mapping and uneven surfaces are not acceptable on broadwall substrate surfaces, however these areas can be fully feathered back and as needed apply Dulux Professional Ultrasmooth Timber Surfacer following manufactures specifications and instructions at all times.
- Skim coating and the use of Speed Brushes is not permitted at any time. Rollers are only permitted on vertical flat substrates.

Joints, Mitred Corners & Metal Soakers:

"Excessive" chips, cracks, openings and splits on timber joints and corners (e.g., 2mm or more) must be cleaned out and scraped of all base putty and paint, thoroughly, prime, fill with Builders Fill *(catalysed polyester filler)" or an approved equivalent* and then re-prime the whole area. Apply a metal soaker to the area, ensuring it is of a tight flush fit so moisture cannot penetrate.

Gaps under Weatherboards:

Fill gaps under weatherboards using *Selley's "No More Gaps".* If the gap is more than 4mm discuss HNZ, as a lot of time is required to fix these caps.

Windows:

All exterior windows are to be coated in Dulux Aquanamel (demarcation drawings 112, 113 & 114).

When applying Acrylic paint to windows only use Dulux branded Excellent range of brushes - and wash them at regular intervals. Do not over brush.

- Install plastic air tight covers to the inside of window frame, include doors as necessary, then ensure an air tight seal. This seal must not be interfered with until all stripping and work associated with the window has taken place, and the immediate area has been cleaned of all debris and dust.
- Remove all loose and Flaking paint
- All Window surfaces are to be thoroughly sanded to ensure the remaining coats are soundly bound, with the removal of all existing gloss. "Cross Hatch" test is essential if any doubts remain regarding adhesion of remaining coatings.
- Ensure sufficient clearances around the window sash and frame before proceeding with priming
- Mapping is not permitted to be left on any Window, Window joint, Door, Or Door facings. Substrate to be fully feathered back, [e.g. sound coatings] then apply Dulux Professional Ultrasmooth Timber Surfacer following manufacturer's specifications and instructions at all times.
- Any hinges carrying anything in excess of light surface rust, including those in poor or rusty order which cannot be easily and completely cleaned by wire brush,

including interior closed face, *must be "replaced"* with a suitable exterior grade hinge, e.g. Ajax *333* or *1840* (zinc plated, brass pinned) or similar approved.

- **2mm impingement onto glass, the paint must cover the glass by a minimum of 2mm from the putty line, this is to act as a moisture barrier.**
- All windows and doors must be eased (including the hinge side) to ensure that after top coatings have been applied sufficient clearance remains to ensure freedom of movement. 2mm gap is recommended at minimum.
- All cracked and/or missing putty must be removed; the rebate re-primed and new putty Selleys Permafilla Glazing Compound or Glasscorp XHP Glazing compound) fitted in a tradesman-like manner.

Rusting Nails & Screws:

All rusting nails and screws should be removed and if required, replaced with suitable exterior grade replacements.

If unable to remove nails, then punch nail into substrate to a depth of not less than 20mm, fill with Hayden Professional Filler, re-prime once filler has cured, and re-nail using suitable exterior grade replacements.

Roofing (Galvanised Iron):

- All roofs required to be painted must be water-blasted at a maximum of 2000 psi.
- All barges, flashings, ridging and valleys must be checked to ensure all sections are sound and are rust free before painting. Light surface rust can be removed by hand-tool or power-tool, then refer to the Specification for preparation and coating requirements. If rust cannot be easily removed due to being more extensive than light surface contamination, Kāinga Ora should be consulted and discuss replacement.
- Where the roof has been repaired, any replaced sections must be primed using Dulux All Metal Primer.

Galvanised Flashings:

- If the light surface rust can be removed by hand-tool or power-tool, then refer to the Specification for preparation and coating requirements.
- If rust cannot be easily removed due to being more extensive than light surface contamination, Kāinga Ora should be consulted and discuss flashing replacement.

Concrete Steps:

Painted concrete steps must be cross hatch tested to assess the soundness of the paint.

In unsound condition:
All existing Paint coats must be removed and the treads and riser area on the step not repainted. The area must be Diamond ground as follows.

- Diamond Grind Concrete to ICRI standard CSP2 minimum. The surface should have exposed aggregate with all laitance removed. The profile shall have surface roughness approximating 120 to 80 grit sandpaper. The Grinding machine shall be fitted with an effective HEPA vacuum dust extraction system and resultant dust shall

be removed from site and safety disposed of in a sealed plastic bag in a recognised waste disposal facility.

- Sides of the Concrete Steps can be painted the same colour as the base and with 2 x coats of Dulux gloss Weathershield.
- Steps should look as per image below and the finish must feel like 120 – 150 grit sandpaper.

Steps in sound condition:

- If steps are in sound condition or can be taken back to a sound previous coat, refer to the Specification.
- the finish must feel like 120 – 150 grit sandpaper.

Metal Handrails, Railings and Clotheslines:

Remove all old unsound paint from metal railings to ensure a clean and uniform surface, ensure all handrails and railings are complete, stable and securely fixed.

Redundant Fittings:

All redundant fittings must be removed and the surface made good prior to painting. Examples of this would be redundant overhead electrical wire anchors or old TV ribbons cables clipped to exterior cladding.

However, surface mounted services, pipes and cables that are removed to paint in behind them must be re-secured.

Letter Boxes:

Metal letterboxes with severe rust will be replaced. Metal letterboxes with light surface rust, should be retained, but all rust should be completely removed using a wire brush, then coat with Dulux All Metal Primer and 2 coats Weathershield X10 Gloss.

Stained Properties:

If the property is already stained and going to be re stained. Make sure the substrate is wash thoroughly with Cabot's Deck clean. Remove all mould and dirt. Colour is to matched to the existing stain.

Dulux rules of Painting in Cooler Months:

1. No painting a substrate, if the **substrate** temperature is below 10 degrees. Note substrate temperature is **not** air temperature. Painters in marginal condition should use an instrument to check the substrate temperature.

2. No top coats before 10am and after 3pm.

3. No painting in the rain.

4. Any moisture forming before another coat is applied, must be removed.

5. If top coats are **not** applied to the undercoat within a 2-week period, the property is to be re prepped and re primed.

General rules for Use of Water Borne Paints at Low Temperature
It is very important when attempting to apply water borne paints at low temperatures that the manufacturers' directions as to minimum temperature, typically 10^{o}C, for use be followed. This minimum temperature applies not only to the air temperature but to the substrate temperature as well. Remember large masses of substrates such as steel or concrete can take a long time to warm up after a cold night.
When used at temperatures below the recommended limit the cure of water borne products can be severely compromised. Proper film formation will not take place and can lead to a reduction in film strength, performance properties and durability. At very low temperatures this effect can be dramatic with the paint film being easily removed by hand and appearance being very poor. At temperatures closer to 10^{o}C this effect may not be so easily noticed and if not corrected early failure will result.
When painting it is important that the temperature (air and substrate) be at 10^{o}C or above from application to fully dry (2 to 4 hours depending on temperature and product). This avoids other problems, such as condensation of water, which can occur when temperature is dropping.

As a rough rule of thumb, if washing will dry then paint will dry.