

Let's Get it Right

Building Inspections

Your guide to the building inspections process



This is intended as a guide to help you prepare for inspections by Waimakariri District Council building inspectors.

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This information will be updated regularly when requirements change so please ensure you have the most recent version.

The latest version is available for download from the Council website waimakariri.govt.nz

Each building site is unique and will have its own individual requirements so it's important you read the documents and pay particular attention to any conditions or endorsements.

Prior to starting any building work you need to ensure the consent has been paid for and you have received your consent. It is your responsibility to determine if a Resource Consent is required and, if so, that the Resource Consent has been applied for and approved.

All consent documentation must be kept on site at all times. To help identify your particular site, please ensure adequate signage is in place, especially in remote or rural locations.

When booking an inspection

Phone: 03 311 8906 or email: bcbooking@wmk.govt.nz

Give at least 2-3 full working days' notice.

PLEASE NOTE: It may not always be possible to carry out the inspection within the time frame you require.

- What is your consent number (or address)?
- What type of inspection?
 - ▶ Refer to the inspection schedule and the order in which the inspections are listed in the consent documents.
- Any amendments relevant to the inspection being booked must be approved by Council before the inspection can be accepted (see page 36 for guidance on amendments).
- What day would you like the inspection?
- Morning or afternoon?
- Contact name and phone number of the person on site, and lock box (or gate) code.
- If you wish to be called prior to an inspection, let this be known at time of booking.
- Rural properties can be difficult to find – signs at the gate are helpful.
- Tell us where the Consent documents will be located on site. It's important to store Consent documents in a secure weather-tight container.

Continued

When booking an inspection

- Provide the inspector with dry, neat and legible plans. Not doing so will affect our ability to carry out the inspection and result in a failed inspection.
- In some circumstances you may need to provide scaffolding, a ladder or scissor lift so difficult building elements can be inspected e.g. a chimney back flashing or roof gutter.

Foundation inspection

Including standard concrete foundations, block foundations and piles.

- Confirm boundary peg locations and lot number.
- Check building is sited as per consent plan.
- Check FFL off datum.
- Strip vegetation from building platform.
- Excavate foundations – ensure foundations are plumb and level at base with all loose material removed.
- Check firm bearing achieved.
- Check consent documentation for special geotechnical or engineering requirements, including engineer's inspections.
- Ensure foundation width and depth measurements are as specified.
- Check reinforcing is installed as detailed including type, size, and spacing. Ensure reinforcing is correctly lapped, and supported with adequate cover.
- Fit waste sleeves, ensuring adequate grade is achieved.
- Sub-floor ventilation in place as per plans.

Piles inspection

- Confirm siting as on previous page.
- Check location for standard, anchor and brace piles.
- Check adequate pile depth, width or diameter is achieved.
- If piles are driven, provide driving log and engineer's certificate.

Blockwork inspection

- Correct type of block.
- Correct number of courses.
- Horizontal and vertical reinforcing tied and centred in block.
- Clean outs in place, reinforcing tied.
- Bond beam reinforcing as detailed, i.e. stirrups.
- Control joints in place.
- Temporary bracing or propping required.
- Engineer's inspection completed if required.
 - ▶ Engineer's site notes and PS4 may be required.

Compacted hardfill pre-DPM inspection

- Confirm any special requirements i.e. engineer's excavation and/or compacted fill inspection.

Note: Please check inspection list in the Building Consent documents as often both the WDC and Engineer have nominated a compacted hard-fill inspection/excavation.

- Building platform scraped to depth specified.
- Correct hard fill used, compacted in a maximum of 150mm layers.
- Set down for under floor insulation.
- Blinding layer in place – i.e. sand, crusher dust – 25mm deep max or building paper.
- Slab base level.
- Slab thickenings formed in place.
- Pipework in place, laid with adequate grade, lagging in place, bedded in sand.

Pre-pour slab inspection

- DPM laid – lapped and taped at joints.
- Mesh reinforcing in place, correct type, lap, support and cover.
- Slab ties in place.
- Slab thickenings in place as per consent, check truss plan.
- Slab thickness and level correct.
- Free joint in place if required.
- Rebates in place.
- Under slab insulation in place if required.
- Waste pipes in position, correct number and location.
- HWC copper relief pipe in place.
- HWC Safety drain - 40mm wastepipe to suitable discharge point.
- Electrical earth bar to mesh installed.
- Engineer's inspection completed if required.
 - ▶ Engineer's site notes and PS4 may be required.

Next step

“As Built” truss design submitted to Council from truss manufacturer at least 10 days prior to ‘Structure Pre Roof’ inspection. Failure to do so would result in no inspection being booked.

Foundation and floor slab (Pre-pour single pour)

- Confirm boundary peg locations and lot number.
- Check building is sited as per consent plan.
- Check FFL off datum.
- Ensure Surveyor has provided Building Location Certificate to be approved for Finished Floor Level and/or siting if required at least two days prior to Foundation/Floor slab inspection.
- Check that the DPM is correctly lapped and taped.
- Check pods are set out as per consented plan.
- Check foundation width and depth measurements are as specified.
- Check reinforcing is installed as detailed including type, size, laps and spacing.
- Check reinforcing correctly positioned on spacers to achieve required cover.
- Wastes installed with correct gradient and lagging. Check engineers details for additional reinforcing and foundation wall thickening's around pipework.
- Mesh reinforcing is correct type, lap, support and cover.
- Slab thickenings as per details and shower step downs also placed where required.
- Free-joints/control joints are in place if required.
- Supplementary reinforcing in place to internal corners and notches for shower recesses as required.

Continued

Foundation and floor slab (Pre-pour single pour)

- Slab thickness achieved.
- Ensure slab rebates are in place for garage door and veneer.
- HWC Safe tray in place - 40mm wastepipe installed to suitable discharge point.
- Electrical earth bar to mesh installed.
- Engineer's inspection completed if required. Site notes and PS4 to be provided.

Next step

“As Built” truss design submitted to Council from truss manufacturer at least 10 days prior to ‘Structure Pre Roof’ inspection. Failure to do so would result in no inspection being booked.

Sub floor inspection

- Correct pile size, treatment and height.
- Bearer size, treatment and spacing.
- Adequate bearing on piles.
- Joist size, treatment, and spacing.
- Solid blocking in place.
- Dwangs in place for brace panel hold downs.
- Fixings – Stainless Steel (within 600mm of the ground or within sea spray zone) or galvanised.
- Insulation in place, adequate access and ventilation.
- DPM to ground if specified.

First floor framing inspection (multiple level)

- Correct joist size, spacing and treatment levels to wet areas.
- Connections completed.
- Boundary joists in place.
- Solid blocking completed.
- Structural steel in place.
- Hold downs completed.
- Beam support completed.
- Flooring in place, correct treatment and fixings.
- Pipes and services installed.
- Engineer's inspection if required.
 - ▶ Engineers site notes and PS4 may be required.

Pre-membrane inspection

- Support framing in place, correct treatment and spacing.
- Minimum fall achieved as shown in consent documents.
- Ply substrate complete, H 3.2 sheets staggered, angle fillet in place.
- Stainless screw fixings in place at correct spacing.
- Scuppers, outlets and overflow relief in place.
- Drip edge in place.

Structure/pre-roof inspection

- All previous site instructions completed.
- “As Built” truss design approved by Council.
- Control cuts to slab completed.
- Framing; correct grade, treatment and spacing.
- DPC to plates.
- Plate hold downs completed.
- Frame connections complete.
- Truss and rafter connections complete.
- Purlin size, spacing and fixings as detailed.
- Z nails to outriggers.
- Roof bracing completed – including gable end/roof strap/roof plane and dragon ties.
- Stud to top plate fixings completed.
- Lintel hold downs and fixings completed.
- Lintel sizes checked.
- Post/beam connections completed.
- Valley board in place – ends supported.
- Brace hold downs completed. Locations checked.
- Bracing ply completed with all fixings in place.
- Bottom chord restraints in place.
- Fire wall hold downs and solid blocking completed.
- Engineer’s inspection completed, if required.
 - ▶ Engineer’s site notes and PS4 may be required.

Building wrap and sill tape inspection

- All previous site instructions completed.
- Correct building wrap selected – i.e. direct fix, cavity, metal framing or cladding. Wrap must be approved for specific applications.
- Wrap installation – wrap securely fastened with adequate lap.
- Wrap returned in to openings, adequate bottom plate cover achieved, wrap above rebates.
- Slab edge protection completed – i.e. DPM/Mulseal.
- Sill tapes in place – must be installed as per manufacturer’s installation details.
- Thermal break in place (steel frame).
- Penetrations sealed through wrap/pipes/wires etc.
- Wrap supported with blue banding to prevent insulation sagging.
- Fire walls – correct linings installed to outer face.

Note: For ease of inspection – do not complete air seals to openings at this stage.

Mid-height veneer inspection

- Cavity – min 40mm achieved and no more than 75mm.
- Cavity clean and clear of mortar.
- Brickwork – max 20mm overhang at foundation. If overhang is greater than 20mm, a solution is required.
- Brick ties in place, spacing and fixings correct.
- Weep holes in place, including columns at correct spacing.
- Slip joints in place.
- Minimum brick panel size achieved (230mm).
- Flashings in place – DPC jamb and sill flashing with 15mm minimum kick out.
- Lintel bars, shelf angles in position with flashing tape or additional layer of wrap over. Ensure separate inspection is completed, if required.
- WANZ support bars in place – full length, level, fixings completed. Galvanized or stainless steel.
- All panels as close as possible to half high.

Cavity battens and flashings inspection

Including all types of weatherboard and sheet claddings.

- All previous site instructions complete.
- Cavity battens in place – correct size, treatment and spacing set out as per cladding specifications.
- Where H3 cavity battens and galvanised flashing/s are in contact ensure separation is provided, such as strips of heavy duty roof underlay.
- Cavity closers in place.
- Flashings:
 - All appropriate flashings/back flashings in place and compatible with cladding material.
 - Head flashings in place – turn ups to ends, sealed to wrap.
 - Sill trays in place for direct fix claddings.
 - Back flashings in place at change of cladding junctions.
- WANZ support bars – full length, level, fixing complete at required spacing.
- AAC Cladding cavity system to be installed as per consent plans or amendment required.

Mid-height cladding inspection

- Builders must use manufacturer's installation instructions for each specific product.
- For mid height sheet cladding inspections – we need a partially clad building with some flashings, support bars, cavity battens, back flashings and fixings in place so the inspector can verify the manufacturer's installation instructions have been followed.
- For AAC panel mid-height inspections, ensure all control joints have been provided and panels have been installed strictly in accordance with the manufacturer's installation instructions and specifications.
- Provide copies of the manufacturer's installation check-list or quality assurance requirements such as cladding company inspection records where appropriate.

Pre-line/plumbing inspection

- All previous instructions completed.
- Exterior claddings completed including all roof flashings and penetrations (weather tight).
- Temporary weather proofing may be required to garage doors, chimney caps etc.
- Window identification labels and safety glass labels in place. A statement of thermal performance may also be required.

Insulation

- Wall and ceiling insulation complete, snug fit, clearances to roof underlay.
- Correct R value.

Air seals

- Complete to all openings including meterbox and garage door jambs.
- Backing rod in place behind air seal to prevent over filling cavity.
- Packers sealed over.
- Silicone sealant in place to narrow gaps.

Continued

Pre-line/plumbing inspection

Pipework

- Pipework completed, clipped and lagged outside insulation.
- Pressure tested. Pressure test statement required at final inspection.
- Correct pipework size/runs/distance to HWC.
- Solar pipework installed.
- Gas pipework installed.
- Wastes and vents in place.

Framing

- Hold downs to bottom plates including all brace elements complete.
- Flush boxes are 90mm minimum from brace panel edges.
- Moisture content within limits.
- Ceiling battens – spacing and fixings correct.
- Stiffeners in place to stud/plate penetrations where required.
- Solid blocking for ceiling diaphragms – penetrations as per manufacturer's specifications.
- Metal angles in place to tiled showers.
- Solid blocking in place to fire walls.
- Fire wall penetrations suitably fire rated.
- Dwangs in place above shower trays.

Pre-stop inspection

- All previous site instructions completed.
- Correct linings in place.
- Bracing completed - appropriate linings and fixings in place as per brace system used.
- Wet area water-resistant linings in place as specified.
- Metal angle in place to internal corner of tiled shower.
- Fixings completed to tiled areas as required.
- Fire walls - appropriate linings and fixings completed as per system requirements.
- Diaphragm ceilings completed-fixings as specified by manufacturer and approved consent plans.
- Penetrations located as specified by manufacturer.
- Manhole access openings have been located as per manufacturer's requirements in a ceiling diaphragm.

Tanking inspection

- All previous site instructions completed.

Membrane

- Tanking product as specified in building consent.
- Required number of coats applied.
- Bandaging to internal/external corners.
- Slope achieved to recess and floor.
- Penetrations sealed.
- Accredited or approved applicator.
- Inspection carried out prior to any tiles being laid.
- PS3 to be provided by accredited applicator.

Pre-plaster inspection - AAC panels

- All previous instructions completed.
- All panels in place, fixings complete.
- Control joints in place as per manufacturer's requirements.
- Proprietary flashing systems completed to openings and cladding junctions.
- Base of cladding flashings in place.
- Clearances to cladding at apron flashings etc.
- Penetrations sealed.
- Reinforcing to cut panels primed.
- Rebate coated with bituminous emulsion if required.

Note: check installation specifications

Drainage inspection

- Drain layers details and registration number available.
- Storm water, sewer pipework laid in position and exposed.
- Correct inspection point locations.
- Adequate grade achieved.
- Pipework supported, laid in chip or clean sand.
- Sumps and soak holes completed.
- Water test on to sewer.
- Primer used on glued joints.
- Septic tank system and location as per consent.
- As-laid plan accurately drawn.

Note: If "As Built" drainage plan provided – dimensions to all connections at dwelling including storm water, inspections and change of direction must be shown with clear dimensions from the building.

Effluent field inspection

- Field to be located as per consent.
- Correct type and size.
- Field to be fenced from vehicles and stock.
- PS3 to be provided by Installer.

Heating unit inspection

Note: If an inbuilt heating unit is to be installed – WDC require a completed pre-installation inspection.

- ❑ Ensure fire being installed is as per consent.
- ❑ Installation to be carried out in strict accordance with the manufacturer's instructions including:
 - ▶ Hearth type and size
 - ▶ Seismic restraints
 - ▶ Unit clearances to combustibles
 - ▶ Flue shielding
 - ▶ Flue type, flue connections, spacers
 - ▶ Ceiling penetrations as per flue system specifications
 - ▶ Number of flues and clearances to combustibles
 - ▶ Ceiling plate – ventilated?
 - ▶ Flue/roof penetration – additional support, soaker flashings
 - ▶ Flue height and support
 - ▶ Wetback installation – HWC open vented
 - ▶ Header/top up tank required to rural installations
 - ▶ Smoke alarms in place
 - ▶ Installer's sheet received
 - ▶ Room/heating unit ventilation in place if required.

Note: It is very important that the heating unit and flue system is installed EXACTLY as per the manufacturer's specifications – e.g. if a flue penetration requires a square hole, then do not cut a round hole!

Final inspection

The final inspection is carried out when all inspections have been completed and passed.

Sometimes, other than the final inspection, there will be inspections (including effluent field, heating unit and solar hot water system) which need to also be completed. Please ensure that these inspections are also booked in so additional time can be allocated. This assists us in distributing all the inspection bookings.

This is the last opportunity the Council has to inspect the completed building and it is therefore important that all aspects of the building are complete.

In order for the Council to carry out this inspection, the building must be completed to a standard where it has a good chance of passing. The final inspection is not intended to provide a list for the contractor to complete.

Some of the following are items that are commonly identified as failed items at final inspection. These items should be checked by the contractor prior to inspection.

Final external inspection

- Finished ground level, clearances to cladding.
- Paved area levels/falls and storm water control completed.
- Storm water disposal complete – i.e. strip drains, sumps, down pipes.
- Finished height of gully traps.
- Soffit/window/doors sealed.
- Drain ventilation installed and flashed etc.
- Mechanical vents complete.
- Cladding/soffits painted.
- Ventilation/weep holes in place to brick or stonework veneers.
- Drainage venting to sewer completed - main vent, branch vent, AAVs.
- Snow straps in place to spouting.
- Vermin proofing completed i.e. below garage door reveals and at cladding junctions.
- Hot water cylinder relief drains terminating in a safe location.
- 190mm maximum step down from door openings.

Final internal inspection

- Hot water must be on to check temperature.
- HWC seismic restraints in place top/middle/bottom.
- Smoke alarms to be in place.
- Window manufacturer's identification stickers in place.
- Check that showers are not leaking by directing water into the corners.
- Gas hob protection in place if required.
- Ventilation to all rooms where hot water tap in place (including scullery).
- Fixtures to be sealed to wall.
- All plumbing work/fit off to be completed.

Final roof space inspection

- Insulation to be tidy and cut neatly around all ducting.
 - Down lights are CA rated with insulation cut neatly around.
 - Down light transformers above the insulation if required.
 - Mechanical vents – ducting to be connected.
 - Ensure roof screw fixings are not missing framing.
 - Vertical insulation restrained.
-

Farm shed final inspection

- Timber treatment, size and span as per design.
 - Roof/wall bracing in place.
 - Roof/wall claddings securely fastened, flashings in place, ground clearances checked.
 - Post/rafter connections in place.
 - Solid blocking to rafters.
 - Purlin, girt fixings completed.
 - Storm water disposal as per building consent.
 - Completed Form 6.
 - Electrical certificate – if power connected to shed.
 - If steel frame shed – all portal frame connections, hold downs and bracing to be completed.
-

Swimming pool final inspection

- Fencing in place – to minimum 1.2m height.
- No gaps that a 100mm diameter sphere could pass through.
- No artificial or natural footholds that allow access to pool area.
- Pool gate in place – must open away from pool.
- Gate to be self-closing, min 1.5m above ground level to latch.
- No objects that can be used as climbing device within 1.2m of pool fence, including trees, tables etc.
- Backflow preventer fitted to nearest outside tap.
- Completed Form 6.
- Electrical certificate.
- Excavation inspection completed.
- All pre-pour inspections completed (if applicable).
- Producer Statement Construction (PS3).

Final paperwork

After all building work is complete the owner must submit an Application for Code Compliance Certificate (Form 6) along with the paperwork as indicated in the consent documents.

The file is then audited to confirm if Code Compliance Certificate (Form 7) can be issued. During the audit process you may be asked to provide additional information as part of the audit process.

The Council has 20 working days to make the decision to issue or refuse to issue Code Compliance Certificate, the clock is stopped while waiting for further information to be received.

Paperwork to be supplied:

- LBP Record of Work completed where required
- Producer Statements (as applicable)- Fully completed and containing:
 - Consent Number.
 - Address.
 - Date.
 - Work covered.
 - Signature.
- Energy Works Certificate - Electrical and/or Gas as applicable.

Paperwork to be sent in to ccc@wmk.govt.nz

Dealing with amendments and minor variations

Getting amendments/minor variations approved quickly is essential otherwise your job might grind to a halt.

There are two ways the Building Control Authority handles changes:

- Minor variations - a change which does not deviate significantly from the approved plans and specifications.
- Amendments – major changes to a project.

Minor Variations - Minor variations can be approved in two ways, onsite by the Building Inspector or in the office by a Building Consent Officer.

You will need to provide the inspector with information to show how the change complies with the Building Code. When the inspector is satisfied the minor variation complies with the building code, the scope of the variation and its approval will be recorded on the inspection notice. Once approved, you do not need to provide any further information to us.

When the inspector does not have enough information to approve the onsite minor variation, you will be asked to apply for an in-office minor variation.

To apply for an in-office minor variation, you will need to complete the Application for a Minor Variation to a Building Consent form and provide the updated plans/documents to the Building Unit to be assessed.

Where the scope of work is broader than what can be covered by a minor variation, you will need to apply for an Amendment.

Amendments - An application for an Amendment must be accompanied by a completed Form 2 Application for Project Information Memorandum and/or Building Consent inclusive of new plans, specifications, design memorandum, amended PS1 and the like. The amendment will be processed within 20 working days.

Note: In-office minor variations and amendments may require additional inspections and site inspections may not be able to be booked until the minor variation/amendment has been approved.

Helpful hints

Arrange written approval from the owner or agent when changes from the building consent are being proposed.

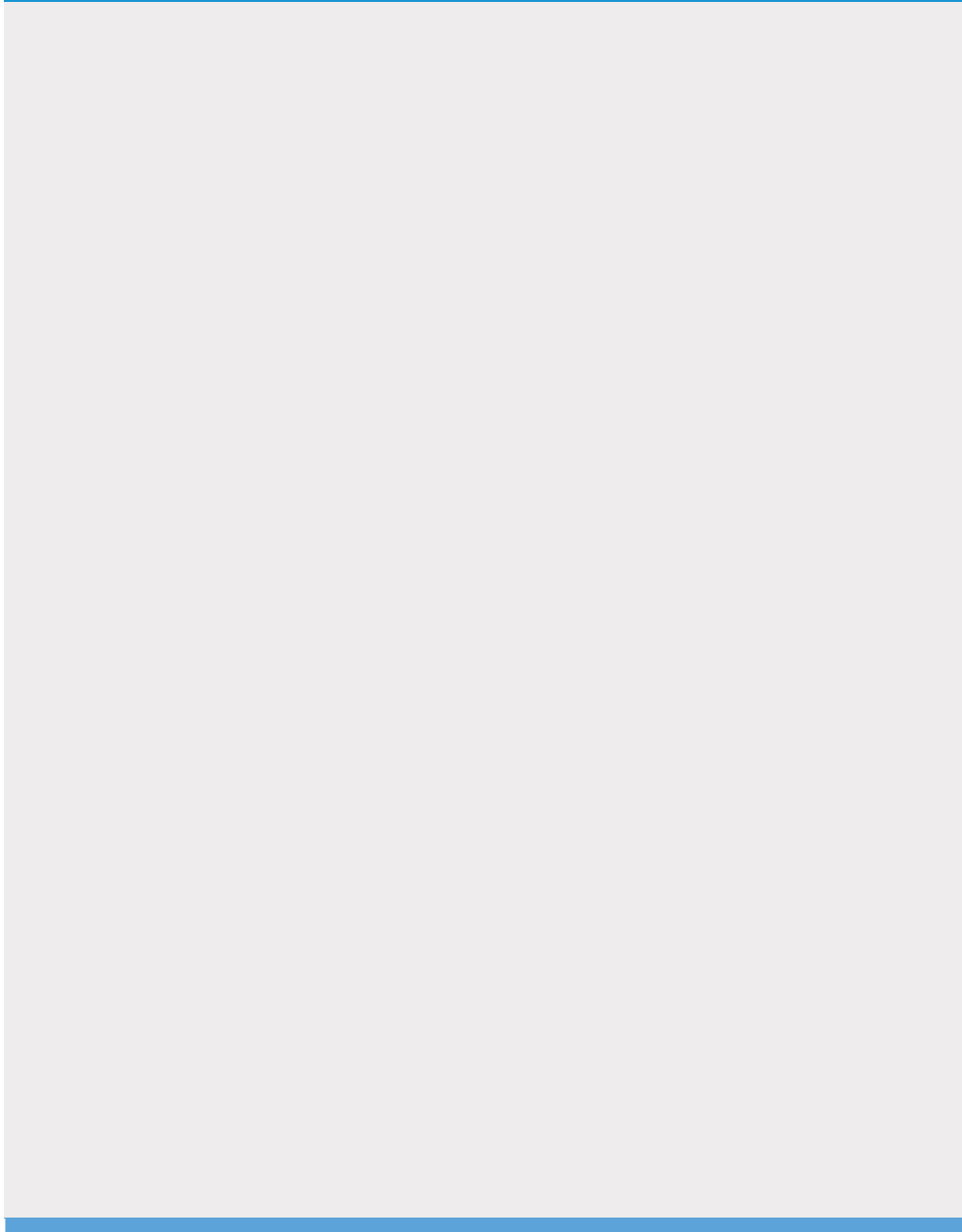
Often a simple building wrap change can cause frustration if the designer/agent/owner is unaware of it.

To avoid delays it is vital that the following documentation is provided:

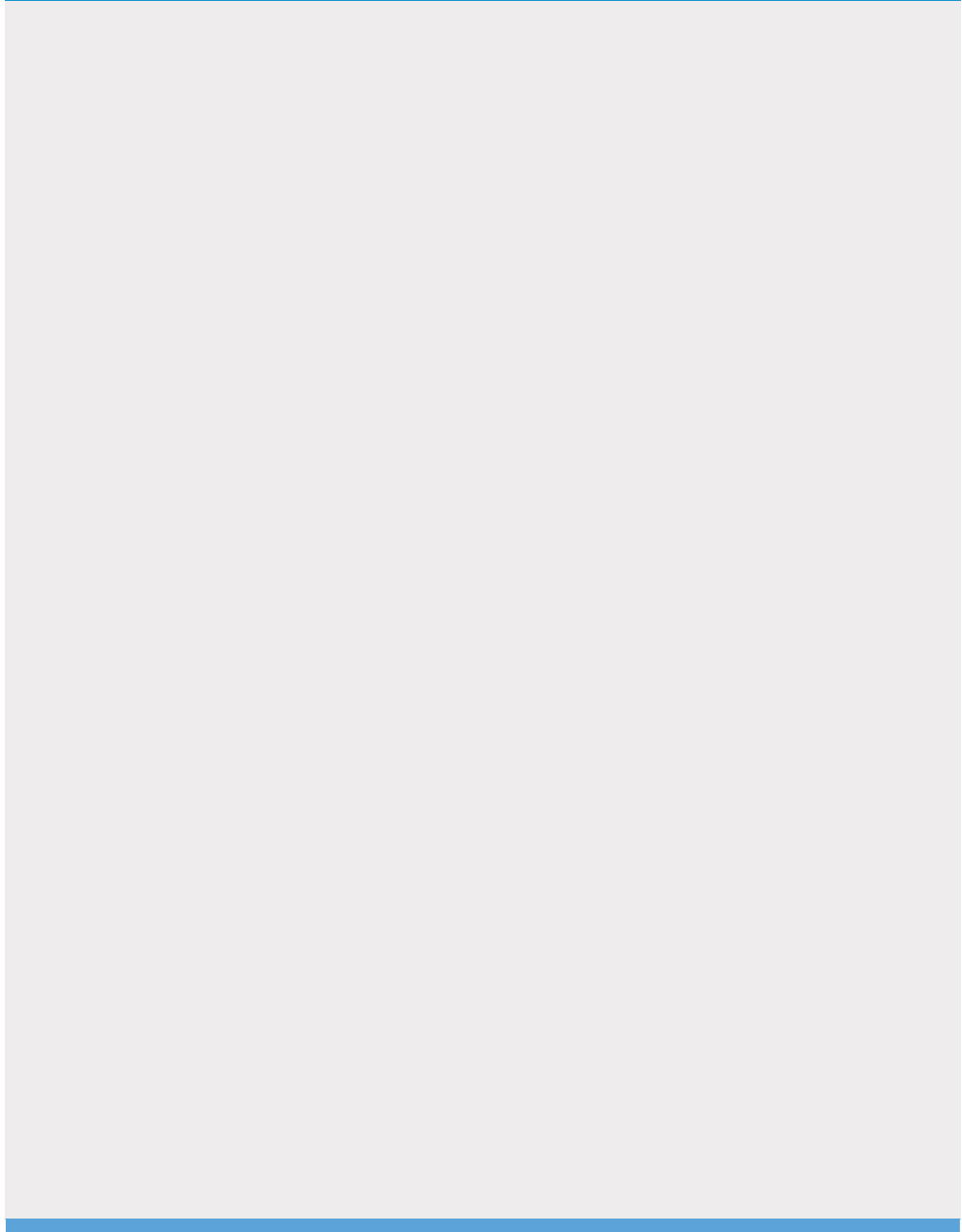
- Completed application form (either for the amendment or the minor variation)
- Amendment application is signed by owner/agent. If an agent is applying, the owner must sign the agent authorisation.
- Specific installation/construction details.
- Amended plans using the most recently consented drawings.
- Highlight or cloud the specific changes for ease of processing.
- Ensure original Design Memorandum is still applicable. This may require the applicant to provide a revised memorandum specific to the amendment. If in doubt, please consult the original designer.

Please see our Amendment and Minor Variation Fact Sheet at waimakariri.govt.nz for further information.

Notes



Notes continued



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Glossary

AAC Panel

Autoclaved Aerated Concrete Panel

BLC

Building Location Certificate

CA Rated

Closed abutted (CA)

DPC

Damp Proof Course (Malthoid or Supercourse)

DPM

Damp Proof Membrane

FFL

Finished Floor Level

HWC

Hot Water Cylinder

LBP

Licensed Building Practitioner

PS1

Producer statement for design

These statements are usually issued by engineers stating that part or all of the building work as described on the nominated plans and specifications has been designed to comply with certain performance requirements of the Building Code.

PS2

Producer statement for design review

These statements are usually issued by engineers confirming that the work covered by a producer statement for design (PS1) comply with certain performance requirements of the Building Code.

PS3

Producer statement for construction

These statements are usually issued by contractors stating that part or all of the building work as described on the plans and specifications has been constructed in accordance with the building consent.

PS4

Producer statement for construction review

These statements are usually issued by engineers who have been engaged to verify part or all of the building work has been constructed in accordance with the design PS1.

WANZ Bar

Window Association of New Zealand.
Window Installation System.

Waimakariri District Council

✉ Private Bag 1005, Rangiora 7440

☎ 0800 965 468 (0800 WMK GOV)

📞 03 313 4432

✉ office@wmk.govt.nz

Service Centres:

Rangiora Service Centre

215 High Street, Rangiora - 0800 965 468

Kaiapoi Service Centre

176 Williams Street, Kaiapoi - 03 375 5009

Oxford Service Centre

34 Main Street, Oxford - 03 311 9005

Find out more at waimakariri.govt.nz