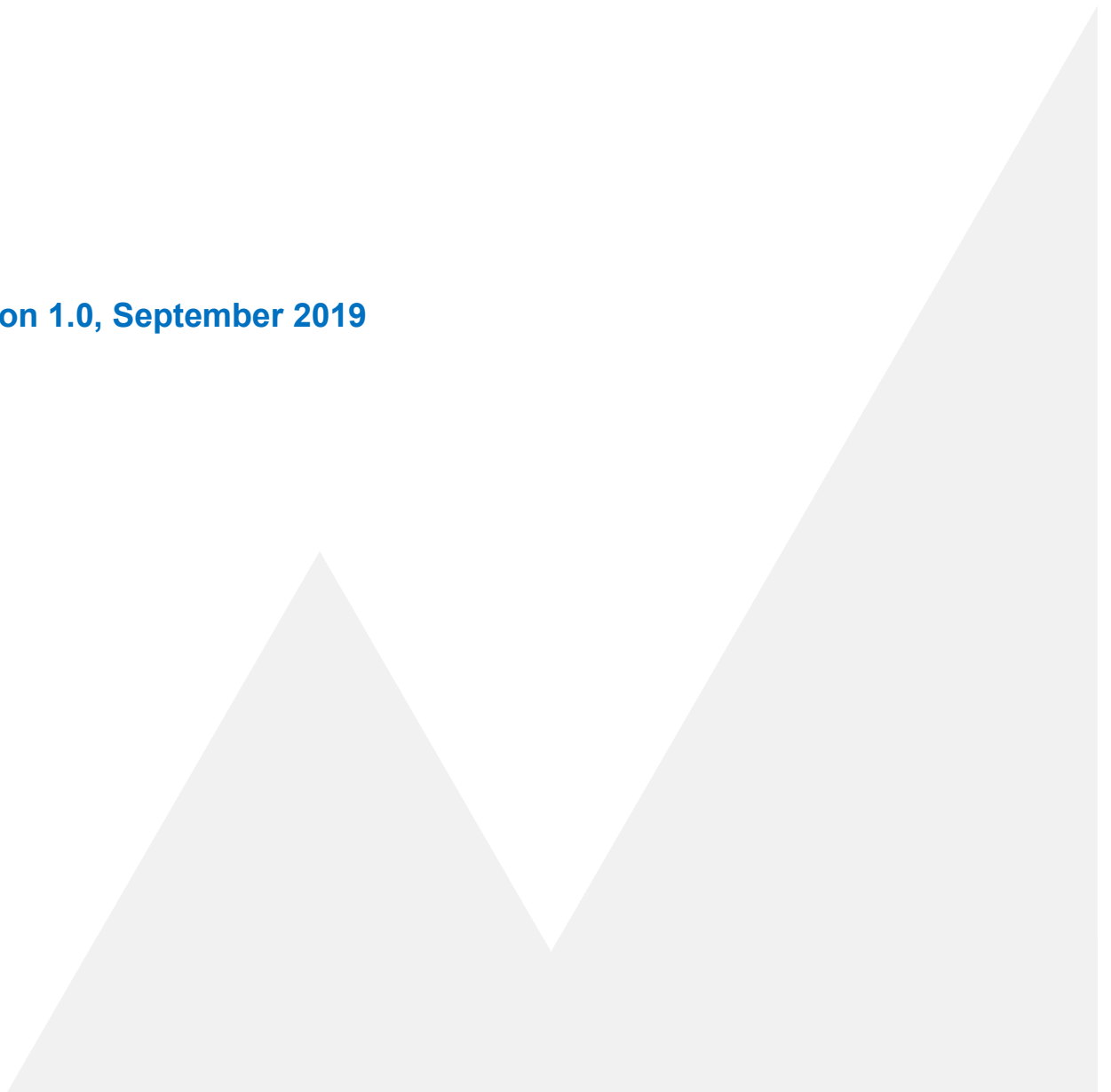




Quality Assurance Requirements for Weathertightness Remediation

Version 1.0, September 2019



Foreword

These *Quality Assurance (QA) Requirements for Weathertightness Remediation* set out the Ministry's expectations for the QA processes for the remediation of buildings with weathertightness failure and associated damage.

The objective of the *Requirements* is to ensure the Ministry has appropriate QA processes for all stages of the remediation of buildings with weathertightness issues. This helps to ensure all buildings are repaired to New Zealand Building Code compliant standards.

The *Requirements* cover all QA aspects of the Ministry's remediation process beginning with selecting suitably qualified and experienced building surveyors for undertaking the preparation of Remediation Inspection reports through to successful project completion and filing of the relevant documentation in the Ministry's files.

The *Requirements* are aimed at all Ministry staff, consultants and contractors involved in the remediation of the Ministry's buildings with weathertightness issues. These are designed to explain the QA activities and documentation by the many professionals involved in the various phases of weathertightness remediation.

The *Requirements* are supported by a suite of QA documents used for the various reviews and activities described in this document.

We are seeking to constantly improve the content and usability of our documents. If anything in this document requires clarification or you have suggestions for improvement please email your comments to WT.Mailbox@education.govt.nz.

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1 Introduction

1.1 Purpose

The purpose of these *Requirements* are to provide overarching directives for the following five phases of Weathertightness (WT) remediation:

- Inspection regime phase including:
 - Selecting the registered building surveyor to undertake the site inspection;
 - The registered building surveyor preparing the Remediation Inspection report; and
 - Undertaking report reviews by the Ministry's WT Team and Weathertightness Review Panel (WRP).
- Remediation design phase including:
 - Selecting the designer;
 - The designer preparing suitable code compliant construction documentation to complete the remediation works;
 - The designer preparing the Project Specific QA Plan; and
 - Undertaking preliminary and detailed design stages reviews by the Ministry's WT Team and Weathertightness Review Panel.
- Regulatory approval phase either by way of:
 - Obtaining a Building Consent and Code Compliance Certificate; or
 - The alternative Building Act Schedule 1(2) process;
- Remediation construction phase including:
 - Selecting the contractor to undertake the remediation construction;
 - Carrying out construction in accordance with the Project Specific QA plan; and
 - Carrying out construction observation and inspection of key work stages in accordance with the Project Specific QA Plan.
- Completion and documentation phase including:
 - The collection of all relevant documentation for filing by the Ministry; and
 - Ministry's documentation filing protocols for future retrieval.

2 Inspection Regime

2.1 Remediation Inspection Report

The inspection regime activities are as follows:

- 2.1.1 Select a suitably experienced consultant. This will usually be a registered building surveyor who is a member of the NZ Institute of Building Surveyors. In addition, the building surveyor is required to be suitably briefed by a member of the Ministry's Weathertightness Review Panel to ensure they have a thorough understanding of the Ministry's Remediation Strategy, the Remediation Inspection report template and associated Technical Briefing note.
- 2.1.2 The Ministry is to provide all relevant available documentation including recent feedback from the Property Advisor and /or Delivery Manager and the Principal and staff of the relevant school.
- 2.1.3 The Consultant undertakes the pre-site inspection analysis and onsite investigations in accordance with the Ministry's *Weathertightness Remediation and Regulatory Strategy* section 2, Remediation Inspection Regime Summary.
- 2.1.4 A review of the remediation inspection report facilitated by the Ministry using the Ministry's relevant QA process. The aim is that the report's author and reviewer will agree on the report recommendations and that the report will be prepared to a suitable standard.
- 2.1.5 It is noted the Remediation Inspection Report's recommended scope of work is based on the onsite investigations, including:
 - meeting with relevant staff and the pre-inspection analysis,
 - reviewing all other information supplied by the Ministry such as previous Destructive Testing (DT) reports where available.
- 2.1.6 The remediation repair recommendations shall be based on identifying the weathertightness failure and consequential damage and any further work required to address the weathertightness failure and consequential damage to a code-compliant standard.

3 Design Phase

3.1 Remediation Design

The remediation design activities are as follows:

- 3.1.1 Selecting a suitably experienced designer. The designer will usually be a qualified architect or registered building surveyor who has a sound knowledge and is suitably experienced with the design, documentation and construction of buildings with weathertightness issues. The designer shall also be responsible for undertaking construction observation services to ensure the construction is in accordance with the documentation.
- 3.1.2 The Ministry is responsible for determining the chosen scope of work. This shall be decided on consideration of the Remediation Inspection Report recommendations and all other factors including master planning, learning environment upgrades, seismic strengthening etc.
- 3.1.3 The designer shall be suitably briefed by the Ministry including being supplied with the Remediation Inspection Report and all other relevant documentation. The briefing shall be conducted by the relevant Property Advisor, Delivery Manager or Project Manager.
- 3.1.4 The designer undertakes design work based on the Ministry's chosen scope of work which includes the Remediation Inspection Report recommendations as modified by the Ministry's considerations (refer Appendix A - Flowchart of Remediation Strategy section 1.5).
- 3.1.5 The remediation design includes the preparation of documentation which shall include specific remediation guidance and instructions within the drawings and specifications to provide contractors with clear and adequate guidance on construction requirements for code compliant construction.
- 3.1.6 The remediation design stage shall also include the preparation of the Project Specific QA plan. Designers are encouraged to use the Ministry's model Project Specific QA plan template, but may use their own format if this covers all the aspects included in the Ministry's template.
- 3.1.7 The remediation design shall also include the preparation of a Design Report using the Ministry's standard template to accompany the Preliminary and Detailed Design documents. This is to enable the Weathertightness Review Panel to assess whether the recommended remedial work will address the weathertightness failures and consequential damage included in the Ministry's chosen scope of work.
- 3.1.8 The remediation design documentation including the drawings and specifications shall be reviewed by the Weathertightness Review Panel at the preliminary and detailed design stages. Suitable QA templates have been prepared for these reviews. The Project Specific QA Plan shall be reviewed at the detailed design stage by the Weathertightness Review Panel.

4 Regulatory Approval

4.1 Regulatory Process

- 4.1.1 In conjunction with the designer the Ministry decides the Regulatory path which will be either by building consent or alternatively a Schedule 1(2) application.
- 4.1.2 The designer is responsible for preparing the necessary documentation for the chosen regulatory path, managing the process and responding to any regulatory authority queries or comments through to obtaining the necessary approvals.
- 4.1.3 The designer shall be involved in any pre-application meetings with the Building Consent Authority.
- 4.1.4 In order to check approval time limits, the designer shall request a pre-application meeting with the Building Consent Authority when a Schedule 1(2) application is being considered. Whereas Building Consent approval time limits are defined in the Building Act, Schedule 1(2) application time limits are not.

5 Construction Phase

5.1 Remediation construction

The remediation construction activities are as follows:

- 5.1.1 A suitably qualified and experienced contractor shall be selected to undertake the remediation construction. Suitably qualified contractors shall include contractors with a previous successful track record of repairing buildings with weathertightness issues and/or a suitable track record of construction and whom the designer has confidence can complete the remedial work to the required standards.
- 5.1.2 The designer shall be a member of the Tender Evaluation Panel for the selection of the contractor.
- 5.1.3 The Project Specific QA Plan shall be followed and updated as necessary by the parties involved in the construction phase in accordance with the requirements of that documentation.
- 5.1.4 Specific written and photographic records shall be taken of each weathertightness failure and the weathertightness repair, sufficient to enable the Ministry to be satisfied that the identified weathertightness failures have been remediated in accordance with the detailed design documents.
- 5.1.5 Any variation to remediation works included in the detailed design documents shall be covered by a written instruction, including supporting drawings, specifications and photographs as necessary, to the contractor to accurately describe the required extent of remediation work.
- 5.1.6 The designer shall refer any major changes (e.g. change of cladding type) to the Weathertightness Review Panel for their comment.
- 5.1.7 The designer is to ensure that any required Building Consent Amendment or minor variations are submitted to the BCA and approved as required.
- 5.1.8 The designer responsible for the Design Phase as outlined in Section 3 of these *Requirements* shall also be engaged to undertake an appropriate level of construction observation sufficient to be satisfied that the building works have been carried out in accordance with the construction documents and to issue the Practical Completion or similar Certificates.
- 5.1.9 Where a Project Manager issues the Practical Completion or similar Certificates, this must be on the recommendation of the designer.
- 5.1.10 Where a building consent has been applied for and granted, the Building Consent Authority shall be notified to ensure that necessary inspections as specified in the consent are undertaken.
- 5.1.11 The Ministry's Construction Observation team may also undertake construction observations but this will not reduce the designer's responsibility.

- 5.1.12 Timber Remediation shall be overseen by a suitably qualified person who shall undertake the process of identifying which timber framing and, when applicable, structural timber members are to be replaced. Suitably qualified persons include, but are not limited to registered building surveyors.
- 5.1.13 The person undertaking the overseeing of the timber remediation process shall visit the site as many times as is considered necessary so that they can prepare a report which shows the methodology and extent of the framing and any other timber replacement and in-situ treatment. The report shall include photos to clearly show the extent of the framing remediation.

6 Completion Phase

6.1 Documentation

6.1.1 Upon completion of the remedial works, record documents are to be compiled by the Project Manager or if no Project Manager is involved by the designer. The record documents shall include but not be limited to the following:

- The construction drawings and specification
- All written instructions for variations to the scope of the remedial work
- QA documentation for remedial work to the framing including the Timber Remediation report
- QA documentation for other remedial work
- Minutes of site meetings
- Site observations including photographs
- Completed Project Specific QA plan
- Practical Completion Certificate (or equivalent provision under the form of contract)
- The defects list and Final Completion Certificate (or equivalent provision under the form of contract)
- The Code Compliance Certificate (for consented works)
- Warrantees and Producer Statements.

6.1.2 These documents are to be provided to the Ministry upon completion of the works for appropriate record keeping.

Appendix A

Remediation Strategy Flow Chart section 1.5

