

Design Review Factsheet



School building designs are reviewed as part of the Ministry of Education's wider quality assurance processes, to ensure that the buildings will meet the Ministry's needs. This guide provides information on the process and requirements for project teams involved in a design review.

Overview

Purpose of a Design Review

As part of a collaborative design assurance process, design reviews aim to:

- ensure that our schools meet the long-term needs of learners and teachers,
- promote a consistent, high standard of education facilities across the Ministry's portfolio (which meet Ministry and Government requirements), and
- support project teams by giving design guidance and sharing lessons learned.
- ensure an efficient use of school land and the provision of durable building assets

Who carries out design reviews?

The School Design team provides design reviews with support from members of a panel of design reviewers. Panel members are independent, professional consultants with extensive school design experience.

The panel consists of Architects, structural engineers, geotechnical engineers, building services engineers, and quantity surveyors (we may engage other subject matter experts for specialised projects, where necessary).

The extent of Design Review will depend on the design stage and complexity of the project.

Design Collaborative

Formal design reviews are also known as Design Collaboratives to signal the interactive, responsive nature of the design review meeting.

When is a design review needed?

Every project will have a Design Assurance Plan, which includes design reviews at appropriate stages.

Any Ministry-led project can access design assurance services for support, but reviews are mandatory for projects where:

- the School Design team identifies the need at the project establishment phase (during desktop review),
- the capital value of the project is likely to be \$3 million or more
- a school is developing, or altering, a Masterplan* for the school

* The term "Masterplan" is an industry defined term. In the context of Ministry Design Assurance processes, it is interchangeable with other terms such as Strategic Property Plan, Long-term Development Plan, Site Exploration study, or a Bulk and Location study.

Design review stages

The table below outlines the stages where a design review is mandatory.

Table 1: Design Review requirements based on project risk

Design Stage		Project Establishment	Master Plan	Preliminary Design	Developed Design
Project Risk	Low <\$3m	Desktop review	YES	Where required	Where required
	Medium \$3m - \$10m	Desktop review	If there is no Masterplan* for the school, and it is identified that one is required.	YES	Where required
	High >\$10m	Desktop review		YES	YES
	Complex project	Desktop review		YES	Where required

Design Review Process

Reviews can be done in two steps for each project stage - Early (Draft) and Close-out. Refer to Table 1 for project stages.

The Design Review Deliverables Checklist provides details on the documents required for each review stage.

Early Review

Early reviews provide an opportunity to collaboratively discuss the proposal, while the design is still being resolved and has flexibility. The project design team should have a strong understanding of the site, and provide a range of draft design options for discussion and exploration. Where required, the reviewers provide critique and useful advice.

The early review aims to be a constructive, collaborative experience, and all parties should be open to the suggestions and questions that may arise. The reviewer's role is to critique, and view the project from wider perspectives. This is an opportunity to reflect on design drivers and consider other views, while in the early stages of design.

Close-out

Close-out reviews provide an opportunity to check that the proposal meets all the Ministry's requirements and promotes the best outcomes for the Ministry's asset portfolio.

Design review format

Early reviews will typically be in-person (or virtual) meetings, close-out reviews will usually be done via

desktop. The format and reviewers will vary depending on the complexity and needs of the project, and will be confirmed when the review is booked.

What to expect during a design review?

Reviews focus on design attributes that are important for creating cost effective, durable, high quality school environments. Project teams present the project and the design options to reviewers for exploration, discussion and feedback.

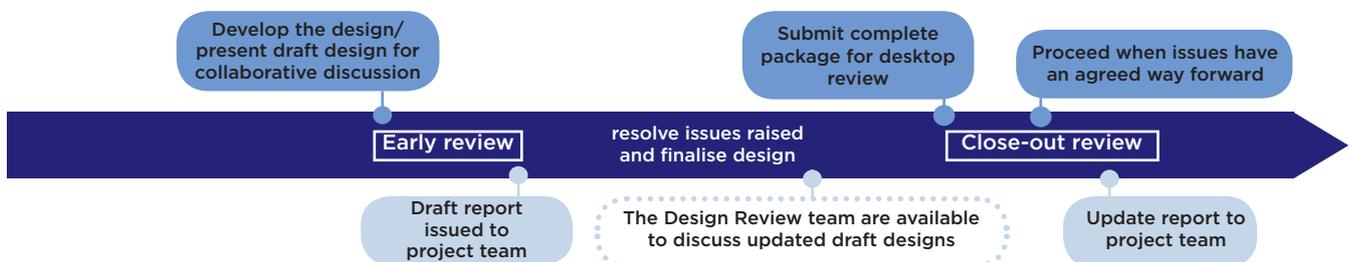
Design reviews also evaluate design process. Following good design process is equally as important as the solution arrived at to ensure value for money, and quality outcomes.

Project teams must demonstrate that they have investigated and analysed a number of options, before arriving at a preferred option. This includes stepping through options from "standard" to "bespoke". For example, you are required to show that:

- single storey doesn't fit on site, before arriving at multi-storey solutions,
- shallow foundations won't work, before arriving at ground improvement, or deep piled solutions, or
- passive interventions won't work, before specifying a mechanical ventilation system.

Project teams should present information in a way that clearly informs the Ministry of the benefits and implications of any options.

Table 2: Design Stage Timeline Progression



Design Review Report Process

Following the review, a Design Review Report is produced identifying issues that need to be resolved, or areas to further explore, as the design progresses.

Before the report is provided, project teams can explore options to respond to the review comments, and seek feedback. This might include discussing high level concept sketches.

Early collaboration on solutions can speed things up, and reduce the risk of re-work.

If documentation is absent or incomplete, the project team must complete the document set as soon as possible. The project cannot proceed until all documentation is complete.

Report format

Design Review Reports have a simple stop/go rating system, where ratings are based on the completeness of

the documentation, or whether the proposed work meets Ministry objectives.

Green: projects are rated green when they appear to be sound, where minor issues are to be resolved in the next design stage, or where concerns raised are minor.

Red: a red rating is given until all major concerns with the project are resolved. The project cannot proceed to the next design stage with a red rating.

Closing out the report

The project team must respond to the Design Review Report in word format, with concise notes showing how they have addressed (and acceptably closed out) each individual comment.

The response should:

- refer to specific drawings and reports,
- provide supporting information, keeping comments concise and factual, and
- highlight key decision rationale and the benefits of these decisions,



- be dated and initialled so that the flow of design decision-making is accurately recorded.

Solutions to all issues must be agreed before the project can proceed to the next stage of design.

Book a Design Review

To avoid delay, book your early and close out design review as soon as possible, by submitting a completed booking request form.

The design review team will then confirm the review format, participants and dates.

Sending project information for review

A complete document package must be provided to the design review team a minimum of 5 working days before the scheduled review meeting.

The Delivery Manager must check the document package for completeness and quality, before it is submitted (the Design Review Deliverables Checklist provides details on the documents required for each review stage).

The project team **must** upload all geotechnical investigation data to the New Zealand Geotechnical Database (NZGD) before the design review.

Submitted project documentation must be organised and clearly titled.

The Booking Process

