

# Masterplanning and design of new schools

**The Ministry of Education has established a process to work with schools embarking on a ministry-led capital project. This kete provides stories about Canterbury schools' experiences and information about the master planning and design phases for this process. It will be updated as required.**

## Grow Waitaha stories

Grow Waitaha has developed a range of stories outlining the journey different schools and stakeholders have taken during the rebuild process.

### [Sumner School – Master planning journey](#)

Stuart Cameron, principal of Sumner School, shares his school's experiences through the master planning and design phases of their property development.

### [South Hornby School – Master planning journey](#)

Simon Moriarty shares ways his school engaged with community, whānau, and students during master planning.

### [St Marks School –](#)

### [Working with Mātauraka Mahaanui](#)

St Marks school outlines how they worked with Mātauraka Mahaanui to bring their cultural narrative to life during their school's redevelopment.

### [Grow Waitaha school tours videos](#)

In these videos three schools open their doors to share how their teaching and learning spaces enable future-focused education for all learners and their communities.

### [Cashmere Primary –](#)

### [Working together to create a master plan](#)

These videos describe the master planning process followed by Cashmere Primary School, including how the school selected their design team and engaged with architects and project managers.



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# The masterplanning and design process

## The outline

The Ministry's key objectives are:

- to support and enable teaching and learning provision as it changes with ever-evolving pedagogical practices;
- to ensure that new buildings and infrastructure align with key design objectives such as flexibility, durability, and cost-effectiveness as well as responding to environmental factors such as prevailing winds, sunlight, and ground conditions. (The Ministry's preference is for durable, regular-shaped buildings with simple roof lines to ensure they are safe, efficient, and effective).

The planning and design process is outlined below.

### School input is essential.

The significant teaching and learning expertise within schools and school communities is critical to delivering successful project outcomes.

## Useful resource

[Education Infrastructure Design Guidance Documents](#)

The Education Infrastructure Design Guidance Documents set out the Ministry's requirements and guidelines for designing infrastructure on school sites.



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## The project brief

The project brief is an important document to guide the design of the school. It sets out the school's vision for teaching and learning and how that translates to space to enable the school to realise its vision. The brief is owned by the school and the schools should drive its development, with support from the Ministry. There are two parts to the project brief.

### 1. Education brief:

Developing the education brief is led by the school but supported and facilitated by the Ministry, if required. It includes the school's specific vision for teaching and learning and takes into account the school's cultural narrative. This informs how the spaces will be designed and configured internally. The education brief is given to the architect before they begin the master planning process (see below).

### 2. Technical brief:

This includes standardised and school-specific technical guidelines for design-teams to incorporate into their work.

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## Useful resources

### [Education Infrastructure Project Brief Template](#)

The project brief template (third document) is completed by both the Ministry and the school board of trustees, and is customised for each project.

### [Project and Site Constraints Table \(PSCT\)](#)

The PSCT (fourth document) is used by the Ministry and design teams to outline and communicate key physical, cultural, financial, and amenity project constraints and opportunities and confirm how these have been, or are to be, met.

## The master plan

The master plan is a comprehensive long-term planning tool intended to establish and guide the future development of the school site. It reflects a clear vision for the future direction of teaching and learning at the school and is supported by policies, guidelines, and priorities. The master plan will identify priorities for action (based on the educational vision), set out suggested relationships between public and private spaces, plan for activities and uses which may take place in school areas, and identify movement patterns around the school.

The master plan is highly likely to be a multiple staged implementation plan, which may be completed over a number of years, usually dependant on funding. It is a collaborative process, providing schools with an opportunity to think strategically; aligning their educational vision with the need for built facilities.

The process matches school aspirations, available resources, and site constraints in a proposal for long-term future development. High-level concept drawings, explanatory diagrams, and supporting documentation are developed to describe the future direction of the schools.

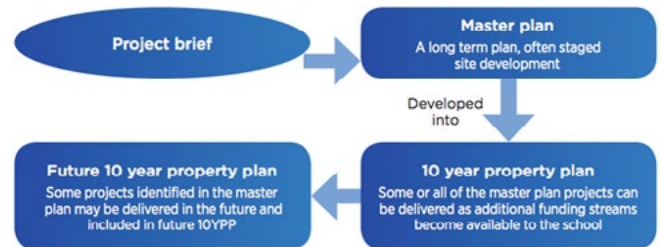
An example of a new school site layout:



Master planning can help redefine a familiar place, opening up its potential and offering new insights into the place it could be. The master plan is informed by the project brief and design guidelines. It informs the 10-year property plan (10YPP) and is just one stage of the school design:

- Master plan
- Concept design
- Preliminary design
- Developed design
- Detailed design
- Construction issue

Schools need a master plan to ensure a coordinated approach to property development and maintenance, each school will develop an overarching site plan that will be delivered over the long term. The school will develop their 10YPP from the master plan. The master plan will include an implementation strategy and a staged approach for site development. This is shown in the diagram below.



## The design phases

Once the master plan has been approved, there are three design phases for the school to work through. This process is supported by a school's Ministry of Education delivery manager and the project architects. A design review panel provides quality assurance (see below). There will be at least one design review, or possibly more depending on the complexity of the design. The delivery manager will liaise with the school in regards to the quality assurance process. The school also has its own design team who participate fully in the design phases.

### 1. Preliminary design:

In this phase, concepts are developed about what buildings and spaces will look like. There are sketches and mock ups provided to the school.

### 2. Development design:

More information is added to the approved design. This phase focuses more on the interior of spaces, including items such as break out spaces, wifi access points, and interior walls or sliders. A quantity surveyor then estimates the cost of the project.

### 3. Detail design:

This phase finalises the space design and includes full information about colours, fixtures, and fittings.

Following detailed design, the project is put out to the construction sector for tender to deliver the project. A school's delivery manager clearly outlines which part of the process a school is involved with.

The length of time for these phases will depend on many factors including:

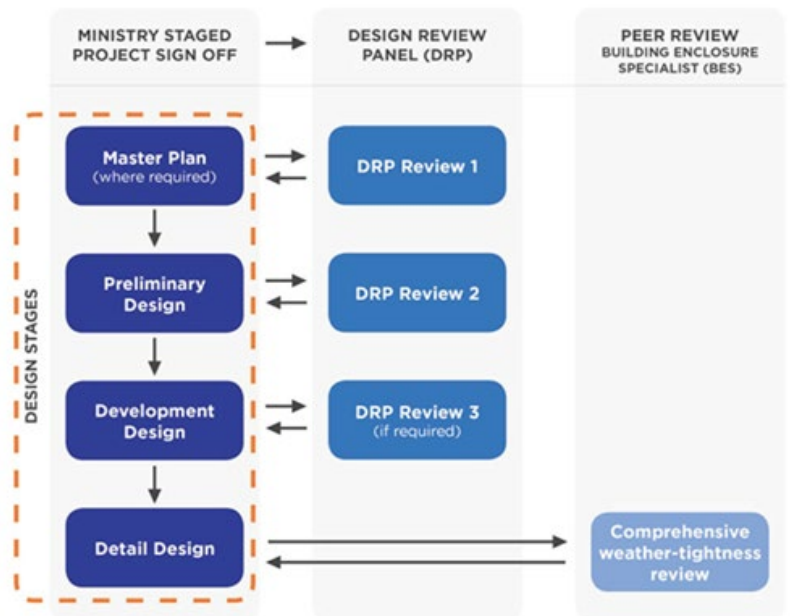
- whether this is a new build or refurbishment;
- feedback from the design review panel; appointment of key positions. eg. architects, construction company;
- other external factors eg. delay due to broken pipes, budget, or roll reviews, etc.

### Design compliance and approval process

Design compliance checklists (DCC) are quality assurance tools that support the Ministry's design compliance approval process.

The checklists are a useful tool for project teams, designers, and contractors. Projects that are to be reviewed by the design review panel (DRP) must complete the appropriate design stage checklist as part of their submission.

The Ministry's staged approval process is set out below.



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## Useful resources

### [Design Compliance Checklists](#)

Design Compliance Checklists (sixth document) are quality assurance tools that support the Ministry's design compliance approval process.

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## The design review panel

The design review panel (DRP) has been established to provide quality assurance over the technical aspects of school buildings, as they are designed.

The panel is made up of industry experts who ask questions such as, have the prevailing wind and sunlight factors been adequately considered in the design, is the building going to be weathertight, and does the design meet the education brief?

The DRP doesn't review the educational aspects of the brief but considers whether the designs will support the school's vision, as it is set out in the brief. The DRP was established for the Christchurch schools rebuild programme but has expanded to provide assurance of overall capital projects across the country. The Ministry aims to have local expertise on the panel for each review.

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## More resources

### [Christchurch Schools Rebuild Programme Newsletters](#)

You can read our newsletters about key developments in the Christchurch schools rebuild programme here.

### [Rebuilding Christchurch Schools 2013-2022](#)

This webpage describes how the MOE is working with local communities and education leaders on a \$1.137b programme to renew the education network in greater Christchurch.



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