

# Highfields State High School

> Education

Commitment and experience ensures the new public high school in Highfields opens on time for the new school year.



Client	FK Gardiner & Sons
Location	Highfields Toowoomba
Type	Education
Project scope	Civil / Structural

## Value Engineering

In 2012, the Queensland Government committed funding for the construction of the new Highfields State High School, to service one of the fastest growing urban areas in the State.

FK Gardiner and Sons Group (FKG) were awarded the contract to construct the school in December 2013, with enrolments planned to commence in January 2015. FKG engaged RMA to provide the civil and structural engineering services for the development.

With tight time frames and a commitment to the community to open the school for the start of the 2015 school year, RMA and FKG collaborated seamlessly to deliver the project on time.

## Advantages of RMA's Input

The initial documentation provided by the government, to FKG, indicated approximately 43000m<sup>3</sup> of cut and fill earthworks would be required at the site. Our civil design team reviewed the plans provided and RMA were able to achieve a 40% saving by more efficient cut and fill design, resulting in substantial savings for the site.

Due to the requirements of the Department of Education and Toowoomba Regional Council, the design was subjected to a range of layout amendments. RMA worked closely with the client and approval authorities to streamline the process and ensure requests for design amendments were implemented quickly.

Utilising individual Revit models of each building, the Structural Design team linked these models to a central file to better coordinate covered walkways and external paths and retaining.

The Structural Design team used a hybrid footing system for the two storey science block instead of a raft slab on the expansive clay site. The hybrid footing system was cheaper and allowed for future flexibility.

The Civil Design team worked to ensure that the new layout was completed and bulk earthworks drawings were prepared for the contractors without any slippage in the project schedule.