



Australian Centre for Life Long Learning

The soon to be completed ACLLL building at Springfield is another testimony to the success of early collaboration between the building designers, the builder and the precaster.

Early in the design stage the decision was made to utilise a totally precast structure incorporating a range of factory applied architectural finishes. Before the building was put out to tender the precaster was invited to provide input on both the structural design and the range of architectural finishes available. As a result, as soon as the head contract was let the design documentation was advanced far enough to allow the precast package to be let and the precaster was able to start the project at the same time as the builder started on site.

This was critical to the success of the project as the builder only had to level and prepare the site, pour the footings then start erection of the precast frame. The site went from a leveled block to a completed 6 storey structure in a matter of weeks (not months as would be common with more traditional construction methods).

Precast manufacturer

Precast Concrete Products

Builder

Springfield Land
Corporation
James Fielding
Developments

Architect

PDT

Engineer

Robert Bird and Partners

www.nationalprecast.com.au



Of equal benefit to the builder as the reduced time, the site workforce for the building structure was drastically reduced and consisted primarily of a precast erection crew, form worker to place the metal deck floor system and a concreting crew to pour the floors.

The six storey building consists of a totally precast external structure. The two long sides of the rectangular building contained 500 x 900 precast columns at 10m centres with 200mm thick spandrels spanning between the columns. The erection sequence consisted of standing and bracing the columns then sliding the spandrel panels into pre-formed slots in the top of the columns. The metal decking was then placed, slab poured into starter bars cast in the spandrels and the sequence repeated for the next level.

The two end walls contained precast wall panels which had dowelled and grouted horizontal joints and starter bar connections to the slabs. The wall and spandrel panels were split typically 1m above the floor levels to provide the builder with a safe working perimeter without the need for any additional handrails.

The architectural finishes included high quality off form dark coloured columns and acid etched spandrels and wall panels. In addition a series of heavy grooves and corrugated mould liners added expression to the façade. As the finishes were applied under factory conditions prior to delivery the quality of finish was even and consistent and there was no requirement for scaffolding to the precast facade on site.