

Case study

Collingwood Park State Secondary College

January 2026



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THE INNER STRENGTH

Queensland State Government College delivered before the start of the school year



Project Details

Project: Collingwood Park State Secondary College

Client: Queensland Department of Education

Location: Collingwood Park, QLD

Principle Steel Product: 200 tonnes of LGS framing made from TRUECORE[®] steel

Architect: Group GSA

Builder: BADGE Constructions

Steel Fabricator: HYTEK Group

Photographer: Aaron Ng



12,000m² Secondary College benefits from a prefabricated, engineered light gauge steel (LGS) framing solution, delivering construction and cost efficiencies despite a sequencing change and difficult weather conditions.

By utilising LGS framing made from TRUECORE® steel for the wall frames, roof trusses and lecture hall seating sub-structure, the following benefits were achieved:



Cost Effective Installation

Despite a constrained site with limited access between buildings, the use of light weight steel framing made from TRUECORE® steel simplified the installation process, minimising the need for costly heavy lifting equipment.



Efficient Construction

The decision to substitute the structural steel and stick-build elements of the original design with a prefabricated LGS solution provided a 4-6 week reduction to the overall project timeline.



Design Versatility

The use of light weight prefabricated LGS framing for the subfloor of the student lecture hall exemplifies the versatility of TRUECORE® steel as a construction material.

Project Highlights



Located in the City of Ipswich, southwest of Brisbane, Collingwood Park State Secondary College officially opened its doors to its inaugural years 7 and 8 students in January 2025. The Queensland Department of Education commissioned this school as a much-needed learning facility in response to the region's growing population and increasing demands on its existing senior school network.

Catering for approximately 1,200 students from years 7 to 12, this state-of-the-art facility, designed by Architectural firm Group GSA, comprises of 11 buildings, including general and specialist

learning areas, arts & design studios, science labs, industrial & technology training spaces and an administration building. Each building was designed to create an atmosphere that would enhance and encourage learning whilst also being sympathetic to the surrounding natural environment and the site's sloping topography.

With this in mind, Architect Lachlan McCallum from Group GSA addressed the challenge of designing on a site with a significant 25-30 metre gradient by incorporating buildings that step naturally with the landscape. This created a terraced layout allowing the multi-storey structures to integrate with the terrain while maintaining accessibility with the use of covered walkways, lifts and staircases. Adopting this approach also reduced the school's footprint and protected the surrounding natural vegetation, which buffers the school from the adjacent built environment.

After completing a lengthy and comprehensive design process, tenders for the new school were sought, and BADGE Constructions were awarded the Design & Construct contract to build the new facility. As part of their submission, and given the project's tight building schedule, BADGE Constructions engaged leading steel fabrication company HYTEK to provide recommendations and advice on incorporating prefabricated light gauge steel framing as an alternative to the schematic's extensive use of structural steel and labour-intensive, stick-build framing elements. The decision to incorporate LGS framing assisted BADGE Constructions in securing the tender, and as would become evident during the construction phase, LGS framing also significantly contributed to a reduction in the project's overall construction timeline.

Having secured the Design & Construct contract, Project Manager Chris Carey from BADGE Constructions was now in a position to assemble the design and construction team.





At its core, it included Jonathan Jennings from HYTEK and Lachlan McCallum from Group GSA. Chris explains, “The decision to engage Group GSA as the project Architect was driven firstly by their intimate knowledge of the project, having developed the business case, master plan and initial schematics, and secondly, there was a synergistic rapport that I thought was crucial to a successful collaboration”.

Chris goes on to explain his decision to work with HYTEK was also two-fold, “Their capacity as a one-stop-shop, to engineer, design, fabricate and install both the LGS elements and the structural steel components of the build, would deliver project efficiencies; also, not having previously used LGS framing at such scale, volume and complexity on a major commercial build, I believed HYTEK’s extensive industry knowledge and experience would prove invaluable”.

Over 200 tonnes of light gauge steel framing made from TRUECORE® steel with a BMT of 0.95mm was used on the Collingwood Park State Secondary College. According to Jonathan Jennings, Special Projects lead at HYTEK, it proved to be one of the most complex construction projects HYTEK had worked on. “At any given time, we would be simultaneously installing roof trusses on one building, infilling wall frames in another and prefabricating LGS framing at our manufacturing facility in readiness for the next phase of the building program”.

Adding complexity to the frame and truss installation was the site’s slope and accessibility. With several multi-storey buildings at various stages of construction and within close proximity to each other, handling large-format frames would prove quite challenging. However, TRUECORE® steel’s high strength-to-weight ratio would make manoeuvring

even large-span frames manageable onsite.

When asked about any specific challenges to the project, both Jon and Chris mentioned an unfortunate but necessary adjustment to the project’s sequencing, which changed the order in which the structures were built. This amendment would require a recalibration of both the manufacturing and installation program and is a testament to the flexibility of the prefabricated LGS process. Despite this realignment, Chris reaffirmed the use of prefabricated LGS framing made from TRUECORE® steel delivered a 4-6 week reduction in the project’s construction timeline.

One of the other most notable changes to the project was the decision to use light gauge steel framing made from TRUECORE® steel as the substructure below the tiered seating arrangement in the student’s lecture hall.

This design element was originally specified as a concrete structure, which would have required extensive scaffolding, complex formwork and a lengthy, labour-intensive construction process. In contrast, HYTEK's 3D modelling software, enabled the entire subfloor to be designed, engineered and prefabricated off-site. Incorporating LGS framing in this application not only saved

time but was also a much more cost-effective design option, according to Chris.

Construction of the Collingwood Park State Secondary College began in late December 2023 and was completed in 12 months, in time for the start of the 2025 school year. Remarkably, the administration building was built in just 9 months, and according to Lachlan McCallum, this was an

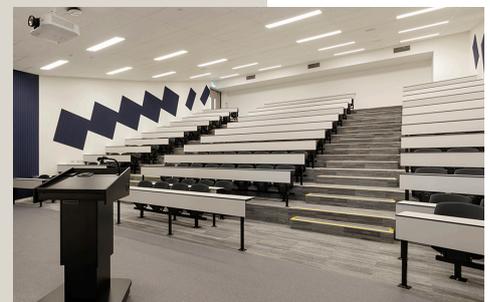
impressive outcome given the project experienced a lot of wet weather, particularly at the start and the end of the building cycle.

The completion of the administration building meant the newly appointed school principal and staff could confidently work on the enrolment program and planning for the school's inaugural academic year.



“HYTEK’s one-stop-shop, supply and installation capability coupled with their extensive industry knowledge and experience proved invaluable to the on-time delivery of the project”

Chris Carey BADGE Constructions, Project Manager.



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