

Case study

Glengara Retirement Village Project

November 2019



Truecore®

Innovative thinking by Topsteel Solutions





Project Details

Project: Glengara Retirement Village

Location: Tumbi Umbi, NSW

Principle Steel Products: 117,000m (8,000sqm) of wall frames, joists, trusses and roof battens made from TRUECORE® steel

Builder: Stevens Construction

Steel Fabricator: Top Steel Solutions

A more efficient build is achieved thanks to innovative thinking by Topsteel Solutions.

Sources:

- Mark Carnovale, Sales Manager, Top Steel Solutions (MC)
- Mathew Dean, Project Manager, Stevens Construction (MD)

Project Summary:

The Glengara Retirement Village located on the NSW Central Coast is expanding to include a new freestanding building for residents who only need minor assistance. The project, managed by Stevens Construction, will include 70 individual units across two-levels, which each have their own bathroom, kitchen, living and balcony areas.

Originally engaged by Stevens Construction to complete only the second level frames and trusses, Topsteel Solutions' contract was quickly extended to include both levels (including the joists), after working with their engineer to eliminate the suspended slab from the design. (MC)

The steel joist system for the lower level not only saved Stevens Construction considerable time but also reduced costs by eliminating the need for a suspended slab. (MC)

Project Goals:

- To deliver a framing solution that incorporated prefabricated bathroom pods for a two storey, 70 bed assisted living facility within the grounds of an existing retirement village.

- Re-engineering the original (structural slab) design to use Topsteel Solutions' frames made from TRUECORE® steel for the lower level walls and joists, and upper level walls and trusses. (MC)

Key Challenges (MC):

- Tight access to site, on an existing (and operating) aged care facility.
- Eliminating as much structural steel as possible to reduce the crane time needed.
 - Large open spans in the design posed a challenge to the elimination of the structural steel.
- Ensuring set downs and reinforcement lined up accurately was crucial in the installation of the prefabricated bathroom pods.

Key Benefits Delivered:

Reduced build time:

- Follow-on trades were able to rough in four weeks sooner than they would have with a traditional construction methodology (suspended slab). Once the ground slab was poured, installation of lightweight framing and prefabricated bathroom pods was able to commence, and other trades were able to follow directly behind. (MD)

Minimal weather delays:

- Extensive prefabrication meant a reduction in the risk of weather affecting time onsite. (MD)

Ease of installation:

- For the bathroom pods which had been fabricated offsite during the detailing stage ready to be installed once frames were in place. (MC)

Accuracy:

- Straight walls with no frame straightening needed post installation. (MC)

Outcomes:

Of the decision to use Topsteel Solutions Framing made from TRUECORE® steel, Mathew Dean of Stevens Construction said, "The main benefits were the cost efficiencies, speed and the ability to fabricate more offsite reducing the risk of the weather affecting time onsite. The other key benefit was the ability to rough in services earlier and take the load off this phase of the project. On the original concrete slab design for example, we would have had to wait for curing and stripping of formwork prior to rough in of services starting."

Topsteel Solutions' Mark Carnovale was also very enthusiastic about the efficiencies gained. "At Topsteel we strive to provide the building industry with the most innovative, cost effective, and high quality steel prefabricated system. We are always working with our design team and engineers to simplify construction for both builders and installers."

truecore.com.au
To learn more about TRUECORE® steel

1800 738 576
For more information call Steel Direct

