

ADHB Starship Hospital PICU Expansion



Client
ADHB Starship Hospital

Architect
Chowhill Architects

Date
2020 - present

Project Summary

The Paediatric Intensive Care Unit (PICU) at the ADHB Starship Hospital is the only specialist paediatric intensive care service in New Zealand. This project aims to urgently overcome the lack of capacity in the intensive and high dependency unit via a 10-bed expansion.

Crossfire was engaged to take over the delivery of the entire fire engineering design and strategy of the project during the Developed Design stage. The Crossfire fire engineering team submitted an FEB during a later stage of the design process and successfully negotiated closeout with regulatory stakeholders within a short timeframe. This allowed for the delivery of the final detailed design on time and on budget, despite the demanding regulatory environment and the heightened challenges associated with patients of high dependency and care.

Crossfire Value to Project

The fire engineering strategy of the PICU expansion involved the provision of passive and active systems to allow additional time for occupants to be evacuated horizontally, where they can then either 'stay in place' or evacuate further into the existing building as required. The fire engineering assessment therefore required consideration of the existing building's ability to facilitate the evacuation of the increased number of patients under high dependency.

Additional challenges associated with the PICU expansion project involved the continued use of the hospital's existing capacity constrained fire alarm system. Careful consideration of construction staging was also required to maintain safe egress from the existing PICU, which was to remain operational during the expansion works. This process involved close collaboration with the DHB stakeholders, architect and building services engineers.

Crossfire also delivered a passive fire schedule for the PICU expansion, which is based on the provision of solutions which can be easily and quickly installed during construction to minimise disruption to the existing ward which will remain operational.