



Project: Inner West Health Care Centre, Croydon

Project Description

Construction of this project comprised of a new 127 bed residential Aged Care facility for Catholic Health Care Services and a 3000sqm Community Health Centre for Central Sydney Area Health Service co-located on the old Western Suburbs Hospital site at Croydon. The new community health centre accommodates 180 staff and is the largest purpose built facility of its type in NSW.



Scope of Services

KAE undertook the Mechanical services design for this \$2M project for dual clients. This project emphasizes KAE's expertise in successfully delivering a fully detailed and coordinated design solution to a technically demanding client brief and very restrictive budget. The enhanced level of design/documentation delivered by KAE ensured a zero-variation contract for the client and enabled the mechanical construction program to be minimised with work shop drawings, installation and final commissioning all completed in short time frames.

Car Park: A major energy consuming item in many buildings is the car park ventilation fans. Typically these are left to run 24 hours per day. This project utilizes CO monitoring to evaluate the air conditioning within the car park and, based on the actual air quality, run the fans at the required speed and for the required time only.

Laundry: This project required a commercial laundry for its successful operation. KAE provided the dedicated mechanical exhausts and make up air systems for the gas fired dryers and washers. A requirement of the project was to maintain a clean room section within the laundry. This was achieved by maintaining a positive pressure dryer room. Careful design of the exhaust glue was also provided to allow for 1, 2 or 3 dryer operation whilst maintaining required room pressures.

Highlights and Deliverables

- Innovative laundry ventilation/ pressurization design to prevent migration of bacteriological contaminants from 'dirty' to 'clean' areas.
- Design of commercial kitchen ventilation system .
- Detailed life cycle costing analysis for mechanical systems including:
 - Car park CO monitoring
 - Economy cycle controls on main AHUs
 - Comparison split DX and chilled water /VAV systems
 - PVC bathroom ventilation duct work system
 - Staged documentation to facilitate the client's pre-purchase of all air conditioning units.
 - Separate tender documentation packages suitable for appointment of multiple contractors.