

CASE STUDY VRV HEAT RECOVERY

# ABBHEY HOUSE, MITTAGONG

THOMPSON HEALTH CARE, IS AN ESTABLISHED PROVIDER OF LUXURY RESIDENTIAL AGED CARE FACILITIES.

For their new Abbey House facility in the NSW Southern Highlands town of Mittagong, they sought a mechanical air conditioning package that gave each of the 143 residents complete control over the temperature in their rooms. Daikin worked closely with the builder and installing contractor, Tempco Energy Solutions during the two-stage project to exceed the brief requirements and provide thermal comfort throughout the facility.

The project required simultaneous heating/cooling operations, or the ability for a tenant in one room to cool their room while their neighbour heated theirs. Simple operation by the facility's aged residents was imperative, as was easy access to units for maintenance and repairs. Additional requirements included adequate ventilation and exhaust systems in addition to the cooling of a chapel and 'cool room' (mortuary).

In terms of construction, Stage 1 of the project – which took place over approximately 12 months – required Daikin and Tempco to retrofit their heating and cooling units, since the first floor had by this stage already been constructed and the roof above this completed.

To meet the unique requirements of the project, Daikin worked with Tempco Energy Solutions to provide VRV III and VRV IV Heat Recovery systems across both stages of the project. A total of 545 kW of heating and cooling power – or 104 units – was delivered in stage 1 of the project, with an additional 536 kW – or 96 units – added in stage 2. A mechanical ventilation and exhaust system was installed in the kitchens, with similar systems employed in toilets and utility rooms.



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**PETER BRADLEY**  
**TEMPCO ENERGY SOLUTIONS**



The use of Daikin products ensures reliable, smooth operation for all residents. "Daikin can provide heat/cool simultaneous operation as we have a true 3-pipe VRV HR system," explains Daikin Commercial Account Manager Dean Pepper, "This means that one tenant's room can cool whilst another heats."

Peter Bradley of Tempco Energy Solutions was similarly pleased with the finished project. "It was very straightforward," he says, "Working together with the Daikin team, who was always on call, worked very well."