



Heat recovery CITY MULTI VRF system utilising M-NET for individual tenancy controlled heating and cooling and indoor unit power isolation for staged tenancy fit out.



Project Info

Application

Specialist Medical Centre

Location

North Lakes, QLD

The challenge:

North Lakes Specialist Medical Centre, located in one of the fastest growing master planned communities in South East Queensland. The modern architecturally designed building features four levels, and is home to a range of specialist and ancillary medical services providing much needed support, with a focus on Preventative Cardiology and Metabolic Disease, to the local community.

The Centre required individually controlled heating and cooling for multiple tenants including state of the art medical suites. Some parts of the building would require heating while other spaces would require cooling at the same time.

The newly constructed building would require staged fit out as new tenants move in. Air conditioning indoor units located in unoccupied spaces would need to be unpowered until required.

The Team

HVAC Contractor

Navaska

HVAC Consultant

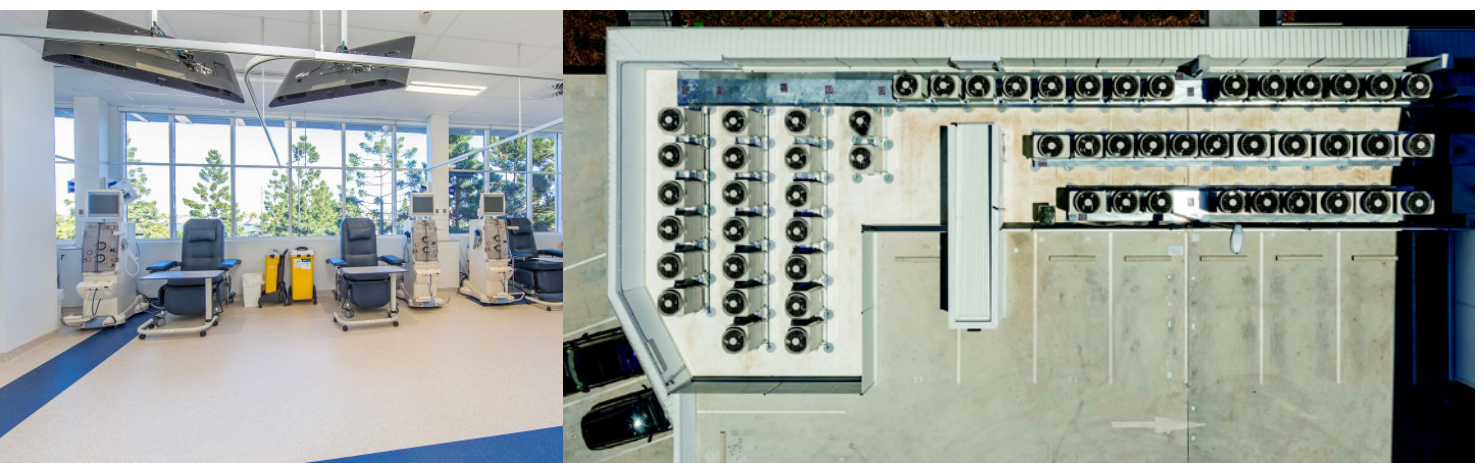
RCA Consulting

The solution:

Mitsubishi Electric City Multi 2-pipe heat recovery technology was selected, providing simultaneous heating and cooling for multiple indoor units connected to a single outdoor unit. The 2-pipe system, unique to Mitsubishi Electric, uses a central branch controller and delivers substantial installation savings over conventional 3-pipe heat recovery systems due to the reduced amount of copper refrigerant piping required, particularly on a larger site.

Independent temperature control per tenancy is provided by M-NET, the integrated communications control transmission network unique to Mitsubishi Electric. Power to the indoor units in unoccupied tenancies was isolated also via M-NET, while other indoor units continued to operate.

This enables a staged tenancy fit out and ongoing refurbishments to occur without effecting neighbouring tenancies connected to the same outdoor unit.



UNIT INFORMATION



Outdoor Units

PURY-P550YSLM-A x 1
 PURY-P500YSLM-A x 1
 PURY-P450YSLM-A x 2
 PURY-P350YLM-A x 2
 PURY-P300YLM-A x 3
 PURY-P250YLM-A x 5
 PURY-P200YLM-A x 3
 PUMY-P140YKM-A x 1

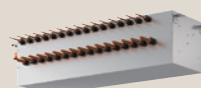


PUMY-P112YKM-A x 1
 PUHY-P650YSKB-A x 1
 PUHY-P600YSKB-A x 1
 PUHY-P350YKB-A x 3
 PUHY-P300YKB-A x 1
 PUHY-P250YKB-AR1 x 1
 PUHY-P250YKB-A x 22
 PUHY-P200YKB-A x 11



Indoor Units

PEFY-P80VMH-E x 1
 PEFY-P71VMH-E x 2
 PEFY-P63VMH-E x 1
 PEFY-P250VMHS-E x 25
 PEFY-P200VMHS-E x 16
 PEFY-P140VMH-E x 5
 PEFY-P125VMH-E x 8
 PEFY-P100VMH-E x 11



BNC

CMB-P108V-GA1 x 4
 CMB-P106V-G1 x 2
 CMB-P104V-G1 x 3



Controllers

PAR-31MAA-J x 69