

# THE COVE HOUSE

SANCTUARY COVE, QUEENSLAND



## CASE STUDY

### PROJECT DESCRIPTION

Located in Sanctuary Cove on the northern Gold Coast and recently taking out Australia's most prestigious housing award, the stunning riverside home named 'The Cove House' represents the very best in modern, luxury architecture.

Designed by Justin Humphrey architects and built by BJ Millar Construction, The Cove House is a sophisticated nod to brutalist architecture and tropical modernism, masterfully crafted with an extraordinary level of customised detail. The home's unique design experiments with volume and space under a floating roof, and follows an unconventional layout revolving around lush, open-air garden atriums, gorgeous timber features and brutalist concrete feature walls.

The house has recently been named as the 2020 HIA-CSR Australian Home of the Year during the annual HIA housing awards which acknowledged exemplar housing projects as well as major builders, small businesses and industry professionals from the Australian residential building industry. The entrants were judged on a range of factors, including quality of workmanship, creative design and business acumen.

### PROJECT DETAILS

Cove House  
Sanctuary Cove, QLD

### COMPLETION DATE

May 2019

### INDOOR UNITS INSTALLED

8 x FDUM KX Ducted Systems

### OUTDOOR UNITS INSTALLED

3 x KX Micro VRF Systems

### CONTRACTORS

Phil Arnold  
0418 757 366



### BUILDER

BJ Millar Constructions  
07 5537 9595

### MHIA REPRESENTATIVE

Rosi Lancaster - 0419 148 338



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AIR CONDITIONING





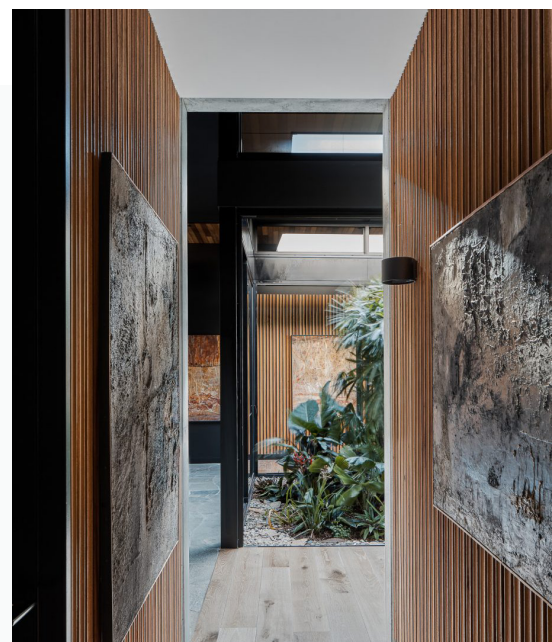
## **PROJECT REQUIREMENT AND CHALLENGES**

The brand new, award winning home required a reliable and discreet air conditioning solution for the entire premise including three oversized bedrooms, walk in wardrobes, expansive foyer, living rooms, large kitchen and study.

The home's layout and architectural design presented a unique challenge and required extensive planning from the contractor and MHIAA technical team. The powerful mix of textured off-form concrete walls and stone finishes, expertly wrought timber trimmings, vast open internal spaces as well as large floor to ceiling windows, doors and large skylights produced varying heat loads and airflow in different areas of the home and required lengthy consideration to ensure the chosen solution would ensure optimum airflow and temperature in every room – specifically during the hot Queensland summer.

To reflect the luxurious design of the home the chosen solution would need to be as discreet as possible while also being extremely quiet during operation. Due to the roof design, any indoor units would need to be slim profile, allowing them to fit within the confined ceiling space without compromising on output.

All outdoor units were required to offer high performance and high flexibility with regards to piping while also being compact in size - allowing them to fit within the small designated area while also servicing all ducted fan coil units with ease during the hot summers.



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## MHIAA SOLUTION

After extensive discussions between MHIAA's technical team and trusted and experienced contractor Arnelec regarding varying heat loads, product selection, product placement, unit sizing, piping plus a variety of other variables, MHIAA's FDUM ducted systems, in combination with our high performance KX series of VRF systems were chosen for the project.

FDUM mid static ducted indoor fan coils were chosen for all spaces including the large bedrooms, entrance, living and dining areas. They offered a quiet and discreet solution that will deliver even airflow via modern yet subtle grilles while offering great performance - ensuring all occupant's comfort all year round. The slim profile design of FDUM indoor units, combined with their design flexibility, which require less ducting than other systems, also allowed for easy installation in ceiling spaces and bulkheads. The 9" SL4 central touch screen controller was installed to ensure advanced control and monitoring over all systems.

KX Micro VRF condensers were installed in a multi-format to power all indoor fan coils which offered a quiet, high-performance, flexible and energy efficient solution for the entire home. KX Micro systems, while compact, deliver high energy efficiencies and lower running costs, achieving COP in heating mode of up to 4.8 and EER in cooling mode of up to 4.0. The KX Micro's wide operating range also allows the unit to operate in temperatures as hot as 46°C making it perfect for warmer climates. While their compact design allowed them to be installed in small areas out of sight, their high quality internal components allows KX Micro to deliver high performance, even during the hot Queensland summer.

By working closely with experienced contractor Arnelec, MHIAA was able to deliver a luxury, high-end and reliable solution for this truly unique and stunning, award winning home that will keep lucky occupants comfortable all year round for years to come.



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