

# Supreme Court, Wellington

## Scope of Work

The Supreme Court of NZ, the country's final court of appeal was ratified early 2004. Five senior judges, including the Chief Justice, are the permanent members of court which sits as a bench of five.

To accommodate this new entity, a new building in contemporary style was constructed and linked harmoniously to the Old High Court Building.

The new building features some key innovative elements. The exterior bronze screen that surrounds the building is eight metres high and has 88 panels. The new courtroom's special shape – its copper panelled exterior and interior lined with silver beach panels – emulates the form and texture of the kauri cone. At the same time the old high court building was fully restored keeping its heritage characters and features intact.



## Engineering Features

The complex incorporates several sustainable features including displacement ventilation through all the public areas, the library and the courtrooms. The perimeter offices have Variable Air Volume in-ceiling ducted system.

An air cooled Heat Pump/Heat Recovery Chiller meets the energy demand for both cooling and heating. It features operation in cooling or heating only modes as well as capable of generating chilled and hot water simultaneously through heat recovery, thus providing high energy efficiencies during the winter and shoulder season demands. The heat pump chiller also generates sufficient hot water for the perimeter trench heaters which were specifically developed and designed by the McAlpine Hussmann Design team, and manufactured locally.

The conditioned air is supplied from six centrally located Air Handling Units and reticulated through a network of ducting into the various spaces.

A total of 27 fans, 14 pumps, 34 VAV Units and 27 fan coils were also installed as part of the total Building Services Requirement. A fully automated web based building automation system with energy monitoring facilities has also been commissioned as part of the project.

## Project Highlights

Total Cooling/Heating Load for Chiller:	350kw approx
Total air moved by the AHU's:	20,000l/sec
Total other ventilation:	25,000l/sec