

MERIDIAN'S FLAGSHIP FOR SUSTAINABILITY

The 5 Green Star Meridian Building sets a new benchmark for energy efficiency and sustainable building practice in commercial office property. This Pathfinder project case study offers lessons that could be useful for other projects.

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With 4,000 m² of office space over three levels, plus ground floor retail, the Meridian Building stands out as a flagship project. It was designed before the New Zealand Green Building Council was established, at a time when an environmental agenda was still off the radar screen for most people. However, the architect was convinced the project should lead in adopting environmental design principles.

One by one, the developers, council, contractor and supply chain came to understand the importance behind this idea and become advocates for it. The message was clear, and people understood how their efforts would contribute to the outcome – to the point where labourers felt part of it and were willing to change behaviours and actively reduce waste, right down to how they disposed of their lunch wrappers.

Meridian plays key role

As the major tenant, Meridian knew what they wanted to achieve and set out to clearly define their requirements before approaching the market for a solution. As part of this, the project manager trained to become an Australian Green Star Professional Project Manager, sought advice from experienced professionals and spoke with other building owners who had embarked on a similar path. This resulted in the creation of a performance specification that became the anchor stone for all decisions during documentation and construction.

Performance specification

The performance specification, which was incorporated into the terms of agreement for the lease, set a new benchmark in commercial development and stretched the consultants and contractor to go beyond what they had ever done before. An additional advantage was the clarity



The Meridian Building during construction on the Wellington waterfront.

the specification gave to the team, as they knew what they had to deliver.

The specification included 21 defining aspects supported by 104 performance objectives covering energy efficiency and water use, through to achieving a healthy and productive working environment. When the Green Star NZ rating tool was formed, it was easy to compare this information and obtain a 5 Green Star rating.

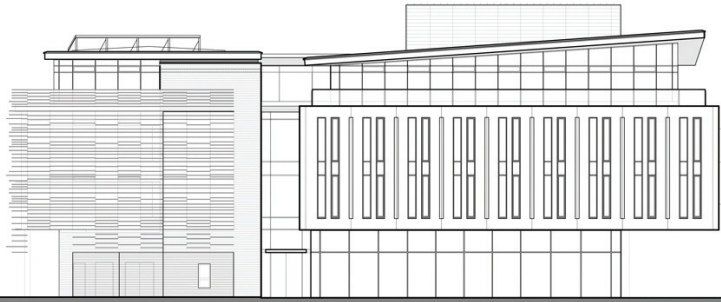
The Meridian performance specification can be found at www.mfe.govt.nz/issues/sustainable-industry/govt3/, then click on Buildings, then Contract documents. In addition, Meridian has a website (www.meridianbuilding.co.nz), which contains interviews and animated features and explains the technology being used.

Lessons to share

There are many innovative features and processes in this building project:

- Wellington Waterfront derisked the project by gaining a resource consent and key tenant before attracting a developer.

- Public informed of the design from the start. This included a Port-a-com on site with up-to-date drawings and models. A team, including the architect, were there most weekends, and public presentations held at crucial stages.
- Wellington City Council supported Meridian's request for no car parking in the building.
- Social sustainability was enhanced by designing an urban square, with ground floor tenants to activate the edge.
- Decisions moved from initial cost analysis to being based on total occupancy cost neutral or better over 20 years compared to a non-environmentally sustainable designed building.
- The first green lease in New Zealand, where the lease is tied to the building performance.
- Construction expertise during documentation.
- Waste management included timber and plasterboard being mulched and used in the wastewater treatment plant. Monitoring of all waste showed a 60% reduction.
- The team took a collaborative approach, supported by a high degree of transparency



South elevation of the Meridian Building.

within the Project Control Group, which included a representative from Meridian.

- A flat hierarchy between the team meant key players respected each other's knowledge and were willing to listen.
- Decision-making was made easier by having an informed tenant. This was crucial due to the fast-track nature of the project.
- The performance specification informed all decisions.
- Alignment of project goals across the team meant everyone went beyond the norm to realise outcome.
- One software package was developed for the Building Management System (BMS). The intelligent BMS included control of lighting, louvres, security, energy efficiency and water usage and is connected to MetService.
- Every 3 months since occupation, Meridian and BECA have undertaken an energy report to check performance criteria are being met.

Collaboration essential

A high degree of collaboration is required on a project like this, where the boundaries between structure, materials and services merge. Buy-in from everyone involved was needed to make the high quality, environmentally and socially responsible building.

Building as spokesperson

Meridian set out to occupy a building that reflects its philosophical values, particularly its commitment to sustainable development. This building has achieved the objective to such an extent that it acts like a 'spokesperson', marketing Meridian without the need for large signage. People know this building and what it stands for.

See www.constructing.co.nz for a full report on this project. ■

Project	Meridian Building, Kumutoto Site 7
Developers	Wellington Waterfront (initial), then DNZ Property Group
Project managers	Andy Mallard, Mallard Cooke (represented developers)
Key tenant	Meridian Energy Ltd (Shayne Gray project director and Murray Pugh project manager)
Architect	Studio Pacific Architecture, in association with Peddle Thorp (Stephen McDougall and Mark Woodbury project architects)
Contractor	The Fletcher Construction Company (Richard Cameron project manager)
Structural engineers	Dunning Thornton
Services engineers and ESD	Beca
Region	Wellington waterfront
Sector	Commercial offices
Design and base build	\$20 million
Project value	\$30 million
Development of design	September 2004–February 2005
Resource consent	April–May 2005, publicly notified
Contractor selected	January 2006
Construction	January 2006–October 2007
Practical completion	28 September 2007
Procurement method	Fast track
Form of contract	Special, based on NZ 3910



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