

6 star rating



ORION SPRINGFIELD

GREEN BUILDING COUNCIL AUSTRALIA OVERVIEW

The Green Building Council of Australia's mission is to define and develop a sustainable property industry in Australia and to drive the adoption of green building practices through market-based solutions.

The Council's objective is to promote sustainable development and the transition of the property industry to implementing green building programs, technologies, design practice and operations. To do this, it advances and promotes the creation of a green building rating tool, economic incentives, government initiatives and programs, new technologies and industry knowledge.

CONTACT US

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GENERAL PROJECT DESCRIPTION

Orion's total site area is 40 hectares, with Stage 1 encompassing approximately 35,000m² with over 120 shops and services. Orion combines the best of a traditional town square – with its main street, town square, plazas and parks and integrates this with a carefully planned retail environment unlike any other in Australia, where visitors can shop, be entertained, do business and belong to a vibrant community.

The 320 hectare Greater Springfield Gateway CBD will be one of the largest regional business centres in South East Queensland. The district is generating investment expected to exceed \$2.5 billion by 2010. This level of investment in a location close to three major centres – Brisbane, Ipswich and the Gold Coast, servicing a population of 230,000 within a 20 minutes drive, demands an outstanding town centre development. Its location on the Centenary highway means that Orion provides access to this growing population.

Mirvac's intention with Orion was to achieve world's best practice in ecologically sustainable development, whilst still allowing the centre to operate in a "business as usual" mode with equal or better quality of service to its tenants and customers. The design of Orion is atypical to the standard "shopping centre box" allowing Mirvac to showcase not only its ongoing dedication to sustainability in development but also an innovative design for customers' shopping centre experience.

ORION SPRINGFIELD TOWN CENTRE - STAGE 1

Address:

1 Main St, Springfield Central, Queensland

Owner:

Springfield Regional Shopping Centre Trust

Construction:

Mirvac Construction (QLD)

Architect:

Rice Daubney Architects

ESD Consultant:

Synergy of Mind

Structural & Civil Engineers:

MPN Consultants Pty Ltd

Services Consultants:

DMA Professional Engineers

Hydraulic Consultant:

Steve Paul & Partners

Landscape Architect:

EDAW Gillespies

MANAGEMENT

- Orion engaged a Green Star Accredited Professional to assist in the design and delivery of the centre.
- Orion engaged a specialized consultant to manage the detailed commissioning of the centre.
- In the pre-opening phase essential documentation and training was provided to the staff managing the centre.
- Mirvac implemented the Waste and Recycled Management Plan which was adopted in both the construction period and daily operation of the centre.

INDOOR ENVIRONMENT QUALITY

- Orion achieved high daylight penetration into the malls without compromising the Thermal Comfort of the building. Reaching a 2.5 Daylight Factor for 95% of the malls.
- Orion avoided the use of VOC emitting materials for the base building design.
- Due to the design and operation of the malls, Orion reached high levels of natural ventilation.

ENERGY

- Orion is expected to use just over half the energy of a similar size shopping centre.
- Sub-metering was installed to tenancies.
- Sub-metering was installed to substantive energy uses throughout the centre.
- Due to the design and operation of the malls the use of air-conditioning was significantly reduced.
- Orion carpark achieved the required level of natural ventilation and passive supply.

TRANSPORT

- Orion has a bus interchange located on site.
- Dedicated bicycle storage and amenities are incorporated into the design to cater visitors and staff in the centre.

WATER

- Orion used a recycled water (A+ equivalent) supply to the cooling towers. This is a first in retail development in Australia.
- Water savings fixtures/ fittings were incorporated into all public and staff amenities.
- Rainwater supply was also incorporated into the amenities.
- Water meters were installed to all high usage services and tenancies.
- Water saving devices was included in the design of landscaping and water features.

MATERIALS

- A dedicated storage area for recycled materials is located within the centre.
- During tenancy fitouts dedicated recycling bins were supplied for the contractors.

LAND USE AND ECOLOGY

- The Orion site is located on land of low ecological value.
- No topsoil was removed from the site during construction.

EMISSIONS

- Mega GPT and soil treatment is used to treat storm water leaving the site.
- Co-generation was implemented in the heating for cleaners' facilities and staff amenities.
- Reduced power consumption has led to lower carbon emissions.

INNOVATION

Orion achieved innovation points:

- With the inclusion of a Public "Green" Education Centre.
- The use of the Water Recycling Strategy which exceeded the Green Star Benchmark for Wat 'Occupant Amenity Potable Water Efficiency'.
- The provision of VAV diffusers which was acknowledged via receipt of R&D funding. Provision of VAV diffusers into Retail Tenancy spaces is an innovative initiative aimed at giving more control to tenancies to improve Energy and IEQ outcomes.

OVERALL GREEN STAR BUILDING PERFORMANCE

