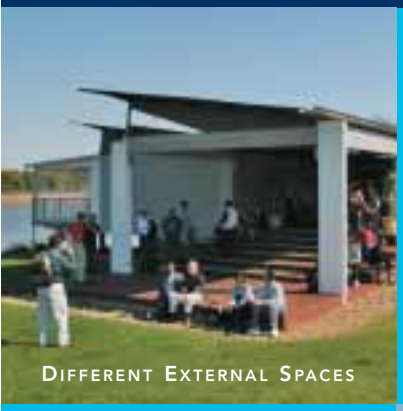
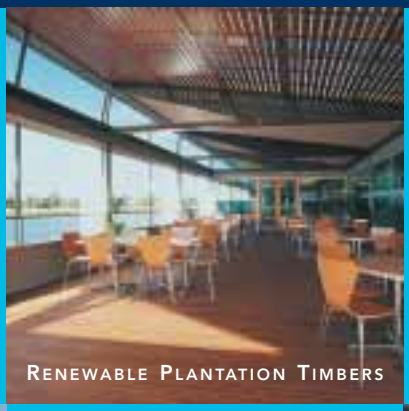
Port of Brisbane Visitors' Centre

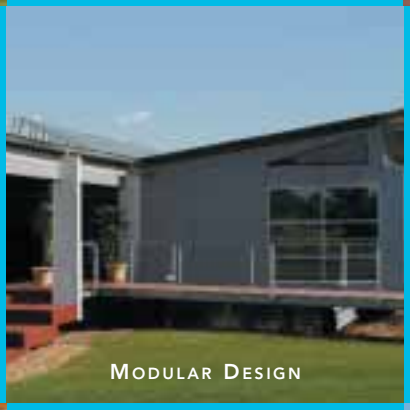


Different External Spaces

Our **Vision** is to be "Australia's leading port: positioned for the future".



Renewable Plantation Timbers



Modular Design

We will achieve this by being a **Leader** of change, working with those developing on port land to adopt creative approaches to traditional urban-industrial development.

Natural Ventilation

Solar Access

Part of our **Contribution** is to inspire new developments on port land to adopt the principles of sustainable development.

Solar Hot Water

This fact sheet details the various design approaches integrated into the Port of Brisbane Visitors' Centre.

It highlights the key features of and direct benefits for the facility and the surrounding environment, achieved through the adoption of a sustainable approach to development.

The Port of Brisbane Corporation is committed to sustainable development on port land. The Port of Brisbane Visitors' Centre highlights what can be achieved and is an example for all future port developments.

Environment Economy People Process Community

PORT OF BRISBANE CORPORATION
Here for the future

A strong sustainable development philosophy is incorporated into the design of the Port of Brisbane Visitors' Centre.

The Visitors' Centre fulfills a range of functions. It is used for educational purposes, as a restaurant, conference and function facility, and offices for some Corporation staff. The Centre was completed in December 2001 and opened its doors to the public in February 2002.

DESIGN AND MATERIALS

The design of the Centre incorporates a range of initiatives that minimise any impact on the environment by reducing energy consumption, using renewable resources, and allowing for the simple alteration and expansion of the Centre if required.

The materials used to build the Centre are lightweight, renewable and locally available, and include: a plyboard ceiling, chipboard internal flooring and plantation hardwoods, Colorbond® prefabricated roof sheets and prefabricated chamferboard. The building frame is constructed of plantation pine, and external timbers are plantation hardwood. Light-coloured roof and walls, combined with insulation, reduce heat penetration and helps maintain the inside environmental conditions.

INTERNAL LAYOUT AND FIT-OUT

Up to 32% of all construction/deconstruction waste going to landfill is the result of fit-outs and refurbishments. Selecting materials and furnishings for durability and design (for example, neutral tones are less susceptible to changes in fashion) can reduce this turnover rate. All materials in the Centre are designed to be hardwearing, and the furniture is a simple design to extend its fashionable life.

Restrooms are fitted with AAA-rated flow-restricted taps, toilets are dual 6/3 flush, and urinals are infrared controlled. The water is heated by a solar hot water system mounted on the roof.

SOLAR ACCESS/NATURAL VENTILATION

The main elevations of the building are oriented within 20 degrees of north/south. This maximises solar access to the majority of the building but minimises the strong afternoon sun from the west. This is further enhanced by very narrow eaves and glazing on the southern elevation, and large verandas on the eastern and western elevations.

The glazing, skylights and clerestory windows promote natural lighting of the Centre, reducing the need for ancillary lighting. In areas that do require artificial lighting, movement sensors activate lights only when someone is present. All lighting in the Centre uses energy-efficient bulbs.

While the Centre is air-conditioned, the building's high ceilings and vents encourage the natural flow of air. During winter, doors and windows can be closed, and the combination of insulation and solar access naturally warms these areas. During summer, doors and windows can be opened to allow cross ventilation. This reduces the need for artificial heating and cooling.

WATER SENSITIVE URBAN DESIGN (WSUD)

WSUD aims to manage stormwater, and the Centre has adopted a number of features, including grassed swales which reduce the volume and improve the quality of water entering the lake from the car parking hardstand.

The Centre is surrounded by a hectare of landscaped grounds. Almost all of the plants used are native, drought-tolerant species, which do not generally need ongoing irrigation or supplementation.

WASTE MANAGEMENT

All cans, paper, cardboard, glass and plastic are collected and recycled.

KEY FEATURES	BENEFITS
PRE-CONSTRUCTION AND MATERIALS	
Tender selection criteria	Commitment to sustainable design at pre-commissioning stage
Light-weight, renewable and locally available building materials	Reduces loss of natural resources and reduces transportation costs
Adaptive design	Allows the building to be easily adapted to changing needs, ie. expansion
Insulation	Reduces heating and cooling costs, and therefore reduces energy consumption
INTERNAL LAYOUT AND FIT-OUT	
Durable interior coverings and furniture	Reduces replacement of coverings and furniture due to wear and tear
Neutral tone coverings and furniture	Coverings and furniture are less susceptible to changes in fashion and therefore replaced less frequently.
Minimum AAA-rated water fixtures	Reduces water consumption and water-supply costs
SOLAR ACCESS AND NATURAL VENTILATION	
Orientation within 20 degrees of north	Maximises favourable solar access and reduces heating and cooling costs
Eaves, verandas and shading over east and west elevations	Reduces unfavourable morning and afternoon summer sun and therefore reduces heating and cooling costs
Variety of spaces	Allows an individual to access or escape the elements according to their personal preferences
OTHER INITIATIVES AND NATIVE VEGETATION	
WSUD	Reduces the volume and speed at which stormwater enters the system
	Improves water quality
Native landscaping	Reduces ongoing watering and supplementation
Recycling	Reduces the volume of waste

FOR FURTHER INFORMATION:

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