



Travel and tourism organisations often employ the services of a specialist interior designer to manage design projects. It is during the design stage of a property that decisions have the most significant impact on the overall carbon footprint and operational performance.

Front loading the design and fit-out process, and taking the time to select the right construction materials will benefit property owners by delivering a high-quality and environmentally friendly development.

This Factsheet Includes:

- Principles of Sustainable Design
- Lifecycle analysis
- Design to minimise impact

PRINCIPLES OF SUSTAINABLE DESIGN

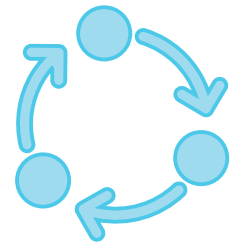
Did you know buildings generate an estimated 40% of global greenhouse gas (GHG) emissions? Implementing and encouraging sustainable design through building, renovating, and furnishing can help minimise the ongoing impact buildings generate through their maintenance and resource usage. The six principles of sustainable design are:

1. Establish a responsible purchasing strategy – develop procurement policies to help staff select the most suitable products available with the least environmental and social impacts.
2. Buy and source locally – sourcing locally supports the community and reduces emissions caused by long-distance transportation.
3. Consider the true cost of a product – a lifecycle analysis assesses the environmental impacts associated with all stages of a product's life from sourcing the product materials to disposal.
4. Reclaim, reuse and recycle – choose materials and products that have been salvaged, reclaimed or made from recycled sources.
5. Include energy efficiency in design – install high-efficiency equipment, products and materials to reduce power and incorporate these aspects into design.
6. Design sustainably without compromising the aesthetic – guest experiences are enhanced by design aesthetics.



LIFECYCLE ANALYSIS

It is essential that organisations carry out a full lifecycle analysis when furnishing a property. It means establishing the cradle-to-grave impact of purchasing and installing fixtures, fittings and equipment (FF&E), from sourcing the raw materials (cradle) to their disposal (grave), whether it is new curtains or carpets, mirrors or vases, tables or chairs. In addition, consider any relevant socio-economic factors in the manufacture of the products, such as the use of child labour or poor working conditions.



DESIGN TO MINIMISE IMPACT

When choosing a designer or supplier, ensure they have the expertise and proven track record in sourcing sustainable materials and products and that they are committed to minimising their environmental impact.

FURNITURE AND FITTINGS

Whether purchasing tables and chairs, sofas or desks, headboards or wardrobes, source suppliers who use renewable, recycled or reclaimed materials and practice responsible policies in their manufacture and delivery.

BATHROOMS

From eco-friendly towels made of organic cotton or bamboo to recycled-plastic shower curtains and shower tiles created from 100% recycled glass, there are many options to choose from, including towels and bathrobes that are more absorbent and quicker drying, consuming 30% less water and 10-20% less energy in the laundry process.

TABLEWARE

Choose porcelain, cutlery, glassware, tablemats, napkins and other accessories that are good quality and durable. Use tableware made from recycled or reclaimed materials and avoid disposable tableware, such as paper napkins, cups and cutlery.

LIGHTING

A key focus of interior design is lighting, but it is also a major consumer of energy. Traditional light bulbs use four times more energy than low-energy bulbs, which also last 10 times longer. As well as energy-efficient lighting, dimmers and motion detectors in hotel rooms and corridors further reduce energy use. A range of innovative lamps and shades, made from recycled and recyclable materials such as wood and plastic, are available.

CURTAINS, SHUTTERS AND BLINDS

Approximately 18% of a building's heat is lost through the windows. Choosing the right window coverings can provide warmth in winter and keep the heat out in summer, cutting energy costs.

Thermal curtains, interlinings and linings, and heavy, quilted and/or tightly woven curtain fabrics will help to reduce heat loss. Heavy curtains in air-conditioned rooms also keep the sun out. Adjustable shading in the form of shutters and blinds or curtains with a light, reflective backing will reflect the heat and protect against the summer sun, reducing the need for air-conditioning. Choose natural fabrics, such as organic linen, wool or recycled fibres, and ensure that wood for shutters and blinds comes from renewable sources.

FABRICS AND FIBRES

Source pillowcases, sheets, duvet covers, towels, bathmats, tablecloths, napkins, curtains and soft furnishings that are made from fabrics and fibres that have been cultivated and manufactured using processes that have a minimal impact on the environment. Check that it is as efficient as possible in terms of energy, water and materials consumed, that labour has not been exploited and that there is a way to recycle the product at the end of its lifecycle.

Be aware that fire-retardant fabrics may be coated with chemical-based stain treatments or flame retardants. In contrast, some natural fibres, such as silk and wool, are natural fire retardants, difficult to ignite and may self-extinguish.

PAINT

The manufacture of synthetic paint consumes large amounts of energy and creates up to 30 litres of waste, mostly toxic, for every litre of paint. In addition, mining for titanium dioxide, a key ingredient in synthetic paints, is environmentally damaging during the purification process, causing water pollution. Manufacturers of non-toxic paints tend to use ingredients that are harmless to people and the environment.

FLOORING

Generally, materials from sustainable sources such as cork, linoleum and wood, are recyclable and/or biodegradable and harsh chemicals are not used in the production or finishing process. Natural slate and stone are good options as they have built-in durability and cope with high levels of use.

QUALITY OVER QUANTITY

The economic benefits of sustainable interior design encourage operators to seek longevity of design. Traditionally hotels regularly replaced linen in bedrooms and public areas to maintain standards or keep up with design trends. Rather than make a fashionable statement, operators should consider a higher standard of finish, detailing and quality in their interior design—and for it to be functional rather than just look good.

QUESTIONS TO ASK

You may not know where to begin or what to look out for when investigating suppliers or products to assist in implementing sustainable design options. Below are some key questions to ask yourself and the supplier to help assist if the product is a sustainable and beneficial fit for your business.

- Does the supplier have a sustainable supply chain?
- Can the furniture be recycled at the end of its lifecycle?
- Does the supplier operate a scheme that allows you to return the products for reuse or recycling if necessary?
- Do the products contain zero or low volatile organic compounds (VOC)-emitting adhesives, stains, finishes and sealants?
- Are the products made using the cradle-to-grave concept?
- Is the product certified and does it meet international standards?
- Does the leather product contain heavy metals, such as chrome which can pollute and contaminate air and water?



CASE STUDY



EMPORIUM HOTEL SOUTH BANK, BRISBANE

Emporium Hotel South Bank is a 5* boutique luxury hotel with state-of-the-art conference and event spaces, located in a lifestyle and cultural precinct in Brisbane.

In 2017, Emporium Hotel South Bank became the first hotel in Australia to integrate the EarthCheck Building, Planning and Design Standard into its planning and construction phase to ensure that operational efficiencies, leading technologies and systems were implemented.



Biodiversity

Subtropical plantings in raised planters have been designed by the architect for the Ground Floor, Level 6 and Level 21 to achieve a biodiversity gain of 360% compared to the previous site.



Air and Noise

Refrigerants used in air-conditioning units were selected with null ozone depletion potential.



Water Conservation

The hotel's hydraulics systems include water saving equipment such as WELS rated tap ware and showerheads, dual flush WC pans and air-based heat rejection (in lieu of cooling towers), in addition to building management systems.