Sustainable Design

Outcome 2041:

A well-designed built environment that minimises environmental impacts, improves liveability and supports community resilience.

Target:

Increase the number of developments which are verified as achieving a minimum Green Star Rating of 5 and/or NABERS rating of 5, or equivalent nationally recognised sustainability rating, by 2041.

Sustainable design is a holistic approach that takes into consideration climatic, ecological, social and economic needs and is key to supporting healthy, affordable, and functional buildings and neighbourhoods while minimising impacts on the natural environment.

It maximises resource efficiency and increases resilience to a changing climate. In addition, sustainable design creates opportunities to create greater community connections, improve productivity, and health and wellbeing outcomes. Done well, it can also be an effective mechanism to enhance the natural environment by providing biodiversity outcomes and cooling refuges within an urban setting.

At the broader scale, sustainable design supports self-containment and reduced emissions by placing priority on walkability and safe pedestrian access and connecting to public transport options.

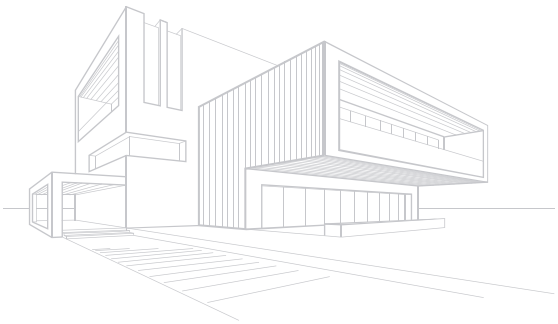
The Sunshine Coast's subtropical climate, characterised by stable year-round temperatures with warm, humid, and often wet summers and mild dry winters, provides an opportunity to achieve simple and cost effective sustainability outcomes. The key features of sustainable design include:

- passive and resilient design in keeping with climate and local character
- sustainable building materials
- renewable energy generation; energy and water efficiency
- indoor environmental quality – airflow, daylight, views
- waste management – avoiding, reusing and recycling during construction, operation and disposal
- designing for need, form, function and adaptive reuse
- multifunctional living infrastructure, eg green walls, that create connections to nature
- integrated and connected infrastructure systems eg transport, streets and spaces.

Sustainable design features are encouraged at all scales and applies to residential, commercial, social infrastructure, sport and recreation facilities, and transport and service infrastructure. Sustainable design applies to new construction and is encouraged in the retrofitting of existing buildings.

As innovation in design, building materials, construction methods and smart technologies improve, it is anticipated that the benefits of sustainable design will increase and the cost of design measures will decrease. Benefits to our environment, economy and community include:

- a new generation of buildings with greater levels of self-sufficiency
- a practical and cost-effective way to reduce energy and resource usage, reduce greenhouse gas emissions and potentially reduce future climate risks
- lower operating costs for homes, commercial buildings and precincts
- opportunity for adapting buildings and infrastructure so they can be reused for other purposes
- improved productivity and wellbeing of occupants
- positive interactions between human activities and the natural environment.



Planning for change

The drivers of change will have varying levels of impacts on sustainable design and will continue to present challenges for the future.

Key impacts may include:

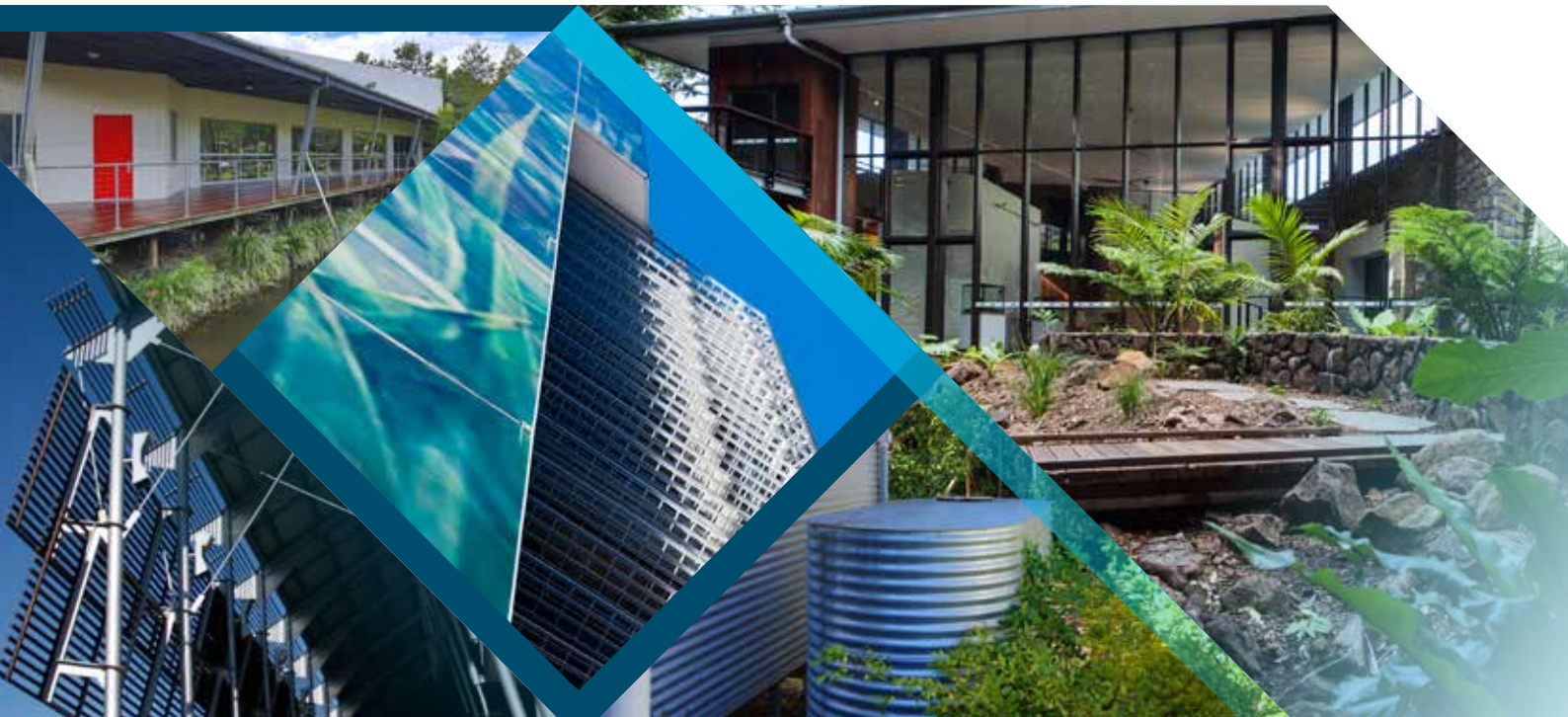
- a rapid increase in demand for residential and commercial buildings could reduce the uptake of sustainable design elements
- potential reduction in building values and an increase in repair and insurance costs for buildings, particularly those in coastal hazard zones and bushfire and flood prone areas
- potential increase in operational and living costs due to buildings that do not have sustainable design features incorporated
- reduced thermal comfort in buildings due to more frequent and prolonged heat waves.

To proactively respond to these likely impacts and seek new opportunities, a strong set of policy positions has been prepared to achieve the desired outcome.

Council's role

Council has a key role through advocacy, planning, collaboration and education with government, industry and community to influence and promote innovation in sustainable design outcomes within the built environment of the region.

As a key provider of civic, administrative, public realm and social infrastructure, council has an opportunity to lead by example in designing a sustainable built form, and demonstrating the benefits and opportunities of designing for a sustainable future.



Sustainable Design policy positions

9.1 The built environment is designed to be low carbon, resilient, well connected, have minimal environmental impact and enhance liveability and local character:

a Buildings, structures and landscapes are responsive to subtropical climate and local character.

b Design, construction and management are resource and cost effective, site responsive and maximise self-sufficiency.

c Carbon emissions are reduced through design, construction and operation.

d Innovative design, technology and alternative materials are incorporated to improve the built environment.

e Designs are adaptive and responsive to changing lifestyles and community needs, natural hazards and climate change.

f Design contributes to the health and wellbeing of individuals, households and communities.

g A sustainable built environment is delivered through partnerships and collaboration with community and industry.

9.2 Living infrastructure is integrated with the built form to create liveable neighbourhoods, support urban biodiversity and create great urban places:

a Connectivity and functionality of the natural and built environments is enhanced through living infrastructure and green corridors.

b Buildings and houses are designed to relate and interact with streets to create attractive places that encourage social interaction and pedestrian use.

c Street corridors are adequate in width and designed to host pathways, infrastructure and shady trees which create safe walkable streets.

d Public and private open space and living infrastructure contributes to the character and amenity of neighbourhoods and community wellbeing.