Energy Efficiency Design Card

Modern Coastal Sydney

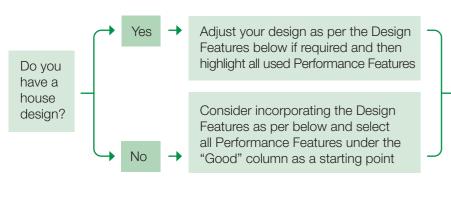
Climate Zone 5 | Warm Temperate

September 2023

The purpose of this Design Card is to aid the creative process of designing a dwelling, ensuring that the chosen direction aligns with both aesthetic and performance goals. Please keep in mind that the listed "Design Features" are key considerations, but they do not include all aspects that can be required to achieve the desired design look.

Additionally, the "Performance Features" provide a summary of features that can be incorporated into the design to achieve the desired thermal performance, such as a 6 or 7-star rating. However, these features are meant to serve as initial guidance in the design process. It is essential to subsequently have an Accredited Energy Efficiency Assessor review the design to determine its suitability.

How to use the Design Card



Send the design to an Accredited Energy Efficiency Assessor for adjustment advice. Consider upgrading the Performance Features to the "Better" or "Best" t columns to improve the performance.

Receive the final set of upgrades & BASIX Certificate

Design Features

The Modern Coastal Look is reflective of Australia's beach shack history. Crisp white weatherboards combine with contemporary clean lines. Indoor and outdoor living areas are carefully styled in a coastal theme with laid-back luxury.



Flexible Roof Styles

The roof style must provide a designer look. This could be a bold gable, a flat roof or a skillion roof with clerestory windows to catch the sun or ocean breeze.

Light Colours

Whites, light grays, beige, and muted pastel tones can evoke a coastal feel and create a fresh and airy appearance. Use contrasting colors for accents such as doors, shutters, or trim.

Indoor Outdoor Connection

Incorporate large windows and sliding glass doors to enhance the connection between the interior and exterior spaces.

Landscaping

Choose landscaping that complements the modern coastal design. Consider using native coastal plants, grasses, and succulents that are well-suited to the local climate.



Performance Features

| | SYDNEY | GOOD | BETTER | BEST |
|--|--|--|--|---|
| | Windows Glass | Clear | Low-e glass | Argon-filled clear glass |
| | Window Frame | Aluminium Standard Single Glazing | Aluminium Standard Double Glazing | Thermally-broken/uPVC Double Glazing |
| | Orientation ¹ | E, SE, S, SW & W | NW & NE | N |
| | Openability ² | None | Include full openability on north/south windows | Include full openability on all windows |
| | Shading | 450mm depth eaves | Deeper eaves over east/west | Deep east/west eaves + minimal north |
| | External Wall R-Value ³⁴ | R2.0 | R2.5 | R2.7 |
| | Suspended Floor Insulation | R3.0 over unconditioned areas | R3.0 throughout | R4.0+ throughout |
| | Slab Insulation | Waffle Pod | Waffle Pod + 25mm width slab-edge insulation | Waffle Pod + min 50mm + slab edge insulation |
| | Ceiling Insulation | R4.0 | R5.0 | R6.0 |
| | Wall Cavities | Reduce wall cavities on all external walls | Include wall cavities on east/west facades | Include wall cavities on all external walls |
| | Ventilation | Include ceiling fans in bedrooms | Include ceiling fans in bedrooms + a living area | Include ceiling fans in bedrooms/studies & living areas |
| | Reflectivity | Include non-reflective wall sarking | Include reflective wall sarking | Include wall and roof reflective sarking |
| | Colour | Dark tones | Medium tones | Medium/Light tones |

- ¹ Orientation refers to the main location of windows in relation to the path of the sun.
- ² On double storey dwelling only, installing fall protection screens on the upper storey windows enables the use of windows with full openability, increasing cross-flow ventilation and potentially reducing the cooling loads and proving a better thermal performance.
- 3 Inclusion of internal walls insulation on the garage area can act as a barrier to the external environment, potentially improving the energy rating.
- ⁴ External Wall Insulation refers to the overall R-Value of the wall as a system
- ⁵ Thermal mass can slow down the rate at which the dwelling warms up and cools down and must be used strategically to moderate internal temperatures. Thermal mass can be found on different elements of the dwelling, such as concrete slabs, tiled finished floors or walls, among others.

External Walls

The following wall systems have been assessed in accordance with AS/NZS 4859:2018 "Thermal Insulation Materials for Buildings. Part 1: General Criteria and Technical Provision, and Part 2: Design" and provide an R-Value as required on the Performance Features Table.









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