# BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

## Single Dwelling

Certificate number: 983406S

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Wednesday, 05 December 2018
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning & Environment

| Project summary | |
|---|---|
| Project name | Lot 9 Karinya Estate, Warriewood |
| Street address | Baz Retreat Warriewood 2102 |
| Local Government Area | Northern Beaches Council |
| Plan type and plan number | deposited 5464 |
| Lot no. | 9 |
| Section no. | - |
| Project type | separate dwelling house |
| No. of bedrooms | 5 |

| Project score | | |
|---|---|---|
| Water | ✔ 45 | Target 40 |
| Thermal Comfort | ✔ Pass | Target Pass |
| Energy | ✔ 50 | Target 50 |

| Certificate Prepared by |
|---|
| Name / Company Name: Abeaut Design Pty Ltd t/a Accurate Design and Draf |
| ABN (if applicable): 66116356551 |

# Description of project

| Project address | |
|---|---|
| Project name | Lot 9 Karinya Estate, Warriewood |
| Street address | n/a Baz Retreat Warriewood 2102 |
| Local Government Area | Northern Beaches Council |
| Plan type and plan number | Deposited Plan 5464 |
| Lot no. | 9 |
| Section no. | - |
| **Project type** | |
| Project type | separate dwelling house |
| No. of bedrooms | 5 |
| **Site details** | |
| Site area (m²) | 353 |
| Roof area (m²) | 185 |
| Conditioned floor area (m2) | 162.24 |
| Unconditioned floor area (m2) | 12.54 |
| Total area of garden and lawn (m2) | 130 |

| Assessor details and thermal loads | | |
|---|---|---|
| Assessor number | n/a | |
| Certificate number | n/a | |
| Climate zone | n/a | |
| Area adjusted cooling load (MJ/m².year) | n/a | |
| Area adjusted heating load (MJ/m².year) | n/a | |
| **Project score** | | |
| Water | ✔ 45 | Target 40 |
| Thermal Comfort | ✔ Pass | Target Pass |
| Energy | ✔ 50 | Target 50 |

## Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

| Water Commitments | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|---|---|---|
| **Fixtures** | | | |
| The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but <= 9 L/min) in all showers in the development. | | ✔ | ✔ |
| The applicant must install a toilet flushing system with a minimum rating of 3 star in each toilet in the development. | | ✔ | ✔ |
| The applicant must install taps with a minimum rating of 3 star in the kitchen in the development. | | ✔ | |
| The applicant must install basin taps with a minimum rating of 3 star in each bathroom in the development. | | ✔ | |
| **Alternative water** | | | |
| Rainwater tank | | | |
| The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities. | ✔ | ✔ | ✔ |
| The applicant must configure the rainwater tank to collect rain runoff from at least 150 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam). | | ✔ | ✔ |
| The applicant must connect the rainwater tank to:<br>• all toilets in the development | | ✔ | ✔ |
| • the cold water tap that supplies each clothes washer in the development | | ✔ | ✔ |
| • at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) | | ✔ | ✔ |

| Thermal Comfort Commitments | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|---|---|---|
| **General features** | | | |
| The dwelling must not have more than 2 storeys. | ✔ | ✔ | ✔ |
| The conditioned floor area of the dwelling must not exceed 300 square metres. | ✔ | ✔ | ✔ |
| The dwelling must not contain open mezzanine area exceeding 25 square metres. | ✔ | ✔ | ✔ |
| The dwelling must not contain third level habitable attic room. | ✔ | ✔ | ✔ |
| **Floor, walls and ceiling/roof** | | | |
| The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below. | ✔ | ✔ | ✔ |

| Construction | Additional insulation required (R-Value) | Other specifications |
|---|---|---|
| floor - concrete slab on ground, 99.66 square metres | nil | |
| floor - above habitable rooms or mezzanine, 75.12 square metres, framed | nil | |
| floor - suspended floor above garage, framed | nil | |
| external wall - brick veneer | 2.86 (or 3.40 including construction) | |
| external wall - framed (weatherboard, fibre cement, metal clad) | 3.00 (or 3.40 including construction) | |
| internal wall shared with garage - plasterboard | nil | |
| ceiling and roof - flat ceiling / pitched roof | ceiling: 4.5 (up), roof: foil/sarking | unventilated; medium (solar absorptance 0.475-0.70) |

| | |
|---|---|
| Note | • Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia. |
| Note | • In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials. |

| Thermal Comfort Commitments | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|---|---|---|
| **Windows, glazed doors and skylights** | | | |
| The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door. | ✔ | ✔ | ✔ |
| The dwelling may have 1 skylight (<0.7 square metres) which is not listed in the table. | ✔ | ✔ | ✔ |
| The following requirements must also be satisfied in relation to each window and glazed door:<br>• For the following glass and frame types, the certifier check can be performed by visual inspection.<br>- Aluminium single clear<br>- Aluminium double (air) clear<br>- Timber/uPVC/fibreglass single clear<br>- Timber/uPVC/fibreglass double (air) clear | ✔ | ✔ | ✔<br>✔ |

| Window/glazed door no. | Maximum height (mm) | Maximum width (mm) | Type | Shading Device (Dimension within 10%) | Overshadowing |
|---|---|---|---|---|---|
| **North-East facing** | | | | | |
| Media | 1800 | 1800 | aluminium, single, clear | none | not overshadowed |
| Guest | 1800 | 900 | aluminium, single, clear | eave 1350 mm, 500 mm above head of window or glazed door | not overshadowed |
| Guest | 1800 | 900 | aluminium, single, clear | none | not overshadowed |
| Bed 2 | 1200 | 1800 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| Bed 3 | 1200 | 1800 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| Bed 4 | 1200 | 1800 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| **South-East facing** | | | | | |
| Garage | 600 | 2400 | aluminium, single, clear | none | not overshadowed |

| Window/glazed door no. | Maximum height (mm) | Maximum width (mm) | Type | Shading Device (Dimension within 10%) | Overshadowing |
|---|---|---|---|---|---|
| Family S/Door | 2100 | 3500 | aluminium, single, clear | eave 4600 mm, 400 mm above head of window or glazed door | not overshadowed |
| **South-West facing** | | | | | |
| Meals | 1800 | 1000 | aluminium, single, clear | eave 600 mm, 370 mm above head of window or glazed door | not overshadowed |
| Meals | 1800 | 1000 | aluminium, single, clear | eave 600 mm, 370 mm above head of window or glazed door | not overshadowed |
| Family | 1800 | 900 | aluminium, single, clear | eave 600 mm, 370 mm above head of window or glazed door | not overshadowed |
| Family | 1800 | 900 | aluminium, single, clear | eave 600 mm, 370 mm above head of window or glazed door | not overshadowed |
| w.i.r. | 900 | 600 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| Bed 1 | 1500 | 700 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| Bed 1 | 1500 | 700 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| Ens | 900 | 700 | aluminium, single, clear | eave 750 mm, 0 mm above head of window or glazed door | not overshadowed |
| **North-West facing** | | | | | |
| Kitchen | 600 | 2600 | aluminium, single, clear | none | not overshadowed |
| Bath | 1200 | 1200 | aluminium, single, clear | eave 600 mm, 0 mm above head of window or glazed door | not overshadowed |

| Energy Commitments | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|---|---|---|
| **Hot water** | | | |
| The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars. | ✔ | ✔ | ✔ |
| **Cooling system** | | | |
| The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0 | | ✔ | ✔ |
| The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0 | | ✔ | ✔ |
| The cooling system must provide for day/night zoning between living areas and bedrooms. | | ✔ | ✔ |
| **Heating system** | | | |
| The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5 | | ✔ | ✔ |
| The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5 | | ✔ | ✔ |
| The heating system must provide for day/night zoning between living areas and bedrooms. | | ✔ | ✔ |
| **Ventilation** | | | |
| The applicant must install the following exhaust systems in the development: | | | |
| At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off | | ✔ | ✔ |
| Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off | | ✔ | ✔ |
| Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off | | ✔ | ✔ |
| **Artificial lighting** | | | |
| The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps: | | | |
| • at least 5 of the bedrooms / study; | | ✔ | ✔ |

| Energy Commitments | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|---|---|---|
| • at least 3 of the living / dining rooms;<br>• all hallways; | | ✔<br>✔ | ✔<br>✔ |
| **Natural lighting** | | | |
| The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting. | ✔ | ✔ | ✔ |
| The applicant must install a window and/or skylight in 2 bathroom(s)/toilet(s) in the development for natural lighting. | ✔ | ✔ | ✔ |
| **Other** | | | |
| The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling. | | ✔ | |
| The applicant must install a fixed outdoor clothes drying line as part of the development. | | ✔ | |

| Legend |
| --- |
| In these commitments, "applicant" means the person carrying out the development. |
| Commitments identified with a ✔ in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development). |
| Commitments identified with a ✔ in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development. |
| Commitments identified with a ✔ in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate(either interim or final) for the development may be issued. |