

section A-A

basix commitments:

Certificate number: 1017568S_02

Water Commitments

Fixtures

The applicant must install showerheads with a minimum rating of 3 star (> 4.5 but <= 6 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 50000 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 279.3 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:

- all toilets 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

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	nil	
external wall - brick veneer	1.86 (or 2.40 including construction)	
internal wall shared with garage - single skin masonry	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3.5 (up), roof: foilsarking	unventilated; dark (solar absorptance > 0.70)
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 3.5 (up), roof: foilsarking	framed; dark (solar absorptance > 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 cont.

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:

- For the following glass and frame types, the certifier check can be performed by visual inspection.
 - Aluminium single clear
 - Aluminium double (air) clear
 - Timber/uPVC/fibreglass single clear
 - Timber/uPVC/fibreglass double (air) clear
- For other glass or frame types, each window and glazed door must be accompanied with certification showing a U value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) within the range of those listed. Total system U values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. Frame and glass types shown in the table below are for reference only.

Window/glazed door no.	Maximum Height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 1%)	Overshadowing
North facing					
W07	2400	2710	U-value: 4.0, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	verandah 4450 mm, 4800 mm above base of window or glazed door	not overshadowed
W08	1200	2110	U-value: 5.8, SHGC: 0.324 - 0.396 (aluminium, single, Lo-Tsol Low-e)	verandah 4450 mm, 3500 mm above base of window or glazed door	not overshadowed
W09	2400	2710	U-value: 4.0, SHGC: 0.297 - 0.363 (aluminium, double (air), Lo-Tsol Low-e/clear)	verandah 4450 mm, 4800 mm above base of window or glazed door	not overshadowed
W10	000	2710	U-value: 5.8, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	verandah 4450 mm, 1400 mm above base of window or glazed door	not overshadowed
East facing					
W11	900	2410	U-value: 5.8, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 450 mm, 1430 mm above head of window or glazed door	not overshadowed
W12	900	2410	U-value: 5.8, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	eave 450 mm, 1750 mm above head of window or glazed door	not overshadowed
South facing					
W01	1200	2110	aluminium, single, clear	verandah 1950 mm, 2040 mm above base of window or glazed door	not overshadowed
W02	1200	610	aluminium, single, clear	verandah 1950 mm, 2040 mm above base of window or glazed door	not overshadowed
W03	1200	2110	aluminium, single, clear	verandah 1950 mm, 2040 mm above base of window or glazed door	not overshadowed
West facing					
W04	1200	2110	U-value: 5.8, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	verandah 1950 mm, 2330 mm above base of window or glazed door	not overshadowed
W05	1200	1510	U-value: 5.0, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	verandah 1950 mm, 2020 mm above base of window or glazed door	not overshadowed
W06	1200	2110	U-value: 5.0, SHGC: 0.369 - 0.451 (aluminium, single, Lo-Tsol Low-e)	verandah 1950 mm, 1750 mm above base of window or glazed door	not overshadowed

Energy Commitments

Hot water

The applicant must install the following hot water system in the development, or a system with a higher energy rating: electric heat pump with a performance of 36 to 40 STCs or better.

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 3.0 - 3.5

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 3.0 - 3.5

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, not ducted; Operation control: manual switch on/off

Kitchen: individual fan, not ducted; 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 3 of the bedrooms / study;
- at least 2 of the living / dining rooms;
- the kitchen;
- all bathrooms/toilets;
- the laundry;
- all hallways;

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 fixed outdoor clothes drying line as part of the development.

Note:

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Project:

PROPOSED SECONDARY DWELLING
13 BUNGENDORE STREET, INGLESIDE.
For: MR J HOLMAN

D	22/5/19	DA ISSUE			
C	10/5/19	REVISED SKETCH			
B	9/4/19	REVISED SKETCH			
A	12/3/19	INITIAL SKETCH	E	9/8/19	REVISED DA ISSUE
ISSUE	DATE	COMMENT	ISSUE	DATE	COMMENT

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Date: MAR. 2019	Sheet: 6
Drawn: AJP	Job No.
Scale: 1:100	20412

safety notes:

1. FALLS, SLIPS, TRIPS

a) WORKING AT HEIGHTS

DURING CONSTRUCTION
Wherever possible, components for this building should be prefabricated off-site or at ground level to minimise the risk of workers falling more than two metres. However, construction of this building will require workers to be working at heights where a fall in excess of two metres is possible and injury is likely to result from such a fall. The builder should provide a suitable barrier wherever a person is required to work in a situation where falling more than two metres is a possibility.

DURING OPERATION OR MAINTENANCE
For houses or other low-rise buildings where scaffolding is appropriate:
Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, ladders or trestles should be used in accordance with relevant codes of practice, regulations or legislation.
For buildings where scaffold, ladders, trestles are not appropriate: Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, fall barriers or Personal Protective Equipment (PPE) should be used in accordance with relevant codes of practice, regulations or legislation.

b) SLIPPERY OR UNEVEN SURFACES

FLOOR FINISHES Specified
If finishes have been specified by designer, these have been selected to minimise the risk of floors and paved areas becoming slippery when wet or when walked on with wet shoes/feet. Any changes to the specified finish should be made in consultation with the designer or, if this is not practical, surfaces with an equivalent or better slip resistance should be chosen.
FLOOR FINISHES By Owner
If designer has not not been involved in the selection of surface finishes, the owner is responsible for the selection of surface finishes in the pedestrian trafficable areas of this building. Surfaces should be selected in accordance with AS HB 197:1999 and AS/NZ 4586:2004.

STEPS, LOOSE OBJECTS AND UNEVEN SURFACES
Due to design restrictions for this building, steps and/or ramps are included in the building which may be a hazard to workers carrying objects or otherwise occupied. Steps should be clearly marked with both visual and tactile warning during construction, maintenance, demolition and at all times when the building operates as a workplace.
Building owners and occupiers should monitor the pedestrian access ways and in particular access to areas where maintenance is routinely carried out to ensure that surfaces have not moved or cracked so that they become uneven and present a trip hazard. Spills, loose material, stray objects or any other matter that may cause a slip or trip hazard should be cleaned or removed from access ways.
Contractors should be required to maintain a tidy work site during construction, maintenance or demolition to reduce the risk of trips and falls in the workplace. Materials for construction or maintenance should be stored in designated areas away from access ways and work areas.

2. FALLING OBJECTS

LOOSE MATERIALS OR SMALL OBJECTS
Construction, maintenance or demolition work on or around this building is likely to involve persons working above ground level or above floor levels. Where this occurs one or more of the following measures should be taken to avoid objects falling from the area where the work is being carried out onto persons below.
1. Prevent or restrict access to areas below where the work is being carried out.
2. Provide toeboards to scaffolding or work platforms.
3. Provide protective structure below the work area.
4. Ensure that all persons below the work area have Personal Protective Equipment (PPE).

BUILDING COMPONENTS
During construction, renovation or demolition of this building, parts of the structure including fabricated steelwork, heavy panels and many other components will remain standing prior to or after supporting parts are in place. Contractors should ensure that temporary bracing or other required support is in place at all times when collapse which may injure persons in the area is a possibility.

Mechanical lifting of materials and components during construction, maintenance or demolition presents a risk of falling objects. Contractors should ensure that appropriate lifting devices are used, that loads are properly secured and that access to areas below the load is prevented or restricted.

3. TRAFFIC MANAGEMENT

For building on a major road, narrow road or steeply sloping road: Parking of vehicles or loading/unloading of vehicles on this roadway may cause a traffic hazard. During construction, maintenance or demolition of this building designated parking for workers and loading areas should be provided. Trained traffic management personnel should be responsible for the supervision of these areas.
For building where on-site loading/unloading is restricted: Construction of this building will require loading and unloading of materials on the roadway. Deliveries should be well planned to avoid congestion of loading areas and trained traffic management personnel should be used to supervise loading/unloading areas.
For all buildings: Busy construction and demolition sites present a risk of collision where deliveries and other traffic are moving within the site. A traffic management plan supervised by trained traffic management personnel should be adopted for the work site.

4. SERVICES

GENERAL
Rupture of services during excavation or other activity creates a variety of risks including release of hazardous material. Existing services are located on or around this site. Where known, these are identified on the plans but the exact location and extent of services may vary from that indicated. Services should be located using an appropriate service (such as Dial Before You Dig), appropriate extavation practice should be used and, where necessary, specialist contractors should be used.
Locations with underground power:
Underground power lines MAY be located in or around this site. All underground power lines must be disconnected or carefully located and adequate warning signs used prior to any construction, maintenance or demolition commencing.
Locations with overhead power lines:
Overhead power Lines MAY be near or on this site. These pose a risk of electrocution if struck or approached by lifting devices or other plant and persons working above ground level. Where there is a danger of this occurring, power lines should be, where practical, disconnected or relocated. Where this is not practical adequate warning in the form of bright coloured tape or signage should be used or a protective barrier provided.

5. MANUAL TASKS

Components within this design with a mass in excess of 25kg should be lifted by two or more workers or by mechanical lifting device. Where this is not practical, suppliers or fabricators should be required to limit the component mass.
All material packaging, building and maintenance components should clearly show the total mass of packages and where practical all items should be stored on site in a way which minimises bending before lifting. Advice should be provided on safe lifting methods in all areas where lifting may occur.
Construction, maintenance and demolition of this building will require the use of portable tools and equipment. These should be fully maintained in accordance with manufacturer?s specifications and not used where faulty or (in the case of electrical equipment) not carrying a current electrical safety tag. All safety guards or devices should be regularly checked and Personal Protective Equipment should be used in accordance with manufacturer?s specification.

6. HAZARDOUS SUBSTANCES

ASBESTOS
For alterations to a building constructed prior to 1990: If this existing building was constructed prior to:
1990 - it therefore may contain asbestos
1986 - it therefore is likely to contain asbestos
either in cladding material or in fire retardant insulation material. In either case, the builder should check and, if necessary, take appropriate action before demolishing, cutting, sanding, drilling or otherwise disturbing the existing structure.

POWDERED MATERIALS
Many materials used in the construction of this building can cause harm if inhaled in powdered form. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation while using powdered material or when sanding, drilling, cutting or otherwise disturbing or creating powdered material.

TREATED TIMBER
The design of this building may include provision for the inclusion of treated timber within the structure. Dust or fumes from this material can be harmful. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation of harmful material when sanding, drilling, cutting or using treated timber in any way that may cause harmful material to be released. Do not burn treated timber.

VOLATILE ORGANIC COMPOUNDS
Many types of glue, solvents, spray packs, paints, varnishes and some cleaning materials and disinfectants have dangerous emissions. Areas where these are used should be kept well ventilated while the material is being used and for a period after installation. Personal Protective Equipment may also be required. The manufacturer?s recommendations for use must be carefully considered at all times.

SYNTHETIC MINERAL FIBRE
Fibreglass, rockwool, ceramic and other material used for thermal or sound insulation may contain synthetic mineral fibre which may be harmful if inhaled or if it comes in contact with the skin, eyes or other sensitive parts or the body. Personal Protective Equipment including protection against inhalation of harmful material should be used when installing, removing or working near bulk insulation material.

TIMBER FLOORS
This building may contain timber floors which have an applied finish. Areas where finishes are applied should be kept well ventilated during sanding and application and for a period after installation. Personal Protective Equipment may also be required. The manufacturer?s recommendations for use must be carefully considered at all times.

7. CONFINED SPACES

EXCAVATION
Construction of this building and some maintenance on the building will require excavation and installation of items within excavations. Where practical, installation should be carried out using methods which do not require workers to enter the excavation. Where this is not practical, adequate support for the excavated area should be provided to prevent collapse. Warning signs and barriers to prevent accidental or unauthorised access to all excavations should be provided.

ENCLOSED SPACES
For buildings with enclosed spaces where maintenance or other access may be required: Enclosed spaces within this building may present a risk to persons entering for construction, maintenance or any other purpose. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter enclosed spaces, air testing equipment and Personal Protective Equipment should be provided.

SMALL SPACES
For buildings with small spaces where maintenance or other access may be required: Some small spaces within this building will require access by construction or maintenance workers. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter small spaces they should be scheduled so that access is for short periods. Manual lifting and other manual activity should be restricted in small spaces.

8. PUBLIC ACCESS

Public access to construction and demolition sites and to areas under maintenance causes risk to workers and public. Warning signs and secure barriers to unauthorised access should be provided. Where electrical installations, excavations, plant or loose materials are present they should be secured when not fully supervised.

9. OPERATIONAL USE OF BUILDING RESIDENTIAL BUILDINGS

This building has been designed as a residential building. If it, at a later date, it is used or intended to be used as a workplace, the provisions of the Work Health and Safety Act 2011 or subsequent replacement Act should be applied to the new use.


Code

10.OTHER HIGH RISK ACTIVITY

All electrical work should be carried out in accordance with of Practice: Managing Electrical Risks at the Workplace, AS/NZ 3012 and all licensing requirements.
All work using Plant should be carried out in accordance with Code of Practice: Managing Risks of Plant at the Workplace.
All work should be carried out in accordance with Practice: Managing Noise and Preventing Hearing Loss at Work.
Due to the history of serious incidents it is recommended that particular care be exercised when undertaking work involving steel construction and concrete placement. All the above applies.

THESE NOTES MUST BE READ AND UNDERSTOOD BY ALL INVOLVED IN THE PROJECT.

THIS INCLUDES (but is not excluded to): OWNER, BUILDER, SUB-CONTRACTORS, CONSULTANTS, RENOVATORS, OPERATORS, MAINTENORS, DEMOLISHERS.

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