BCA REPORT

Proposed BOARDING HOUSE at
LOT 15 & LOT 16
31-32 PARK AVE, KINGSWOOD
NSW 2747

ARCHIDROME
ARCHITECTURE
INTERIOR DESIGN

REGISTERED ARCHITECT: TARUN CHADHA: 8777 ABN: 39274159604 TARUNCHADHA@ARCHIDROME.NET 0433 901 701

Table of Contents

1. BASIS OF ASSESSMENT

1.1 Location and Description

The building development, the subject of this report, is located at 31-32 Park Ave, Kingswood 2747. The proposed works involve the construction of three boarding house with on-site car parking.

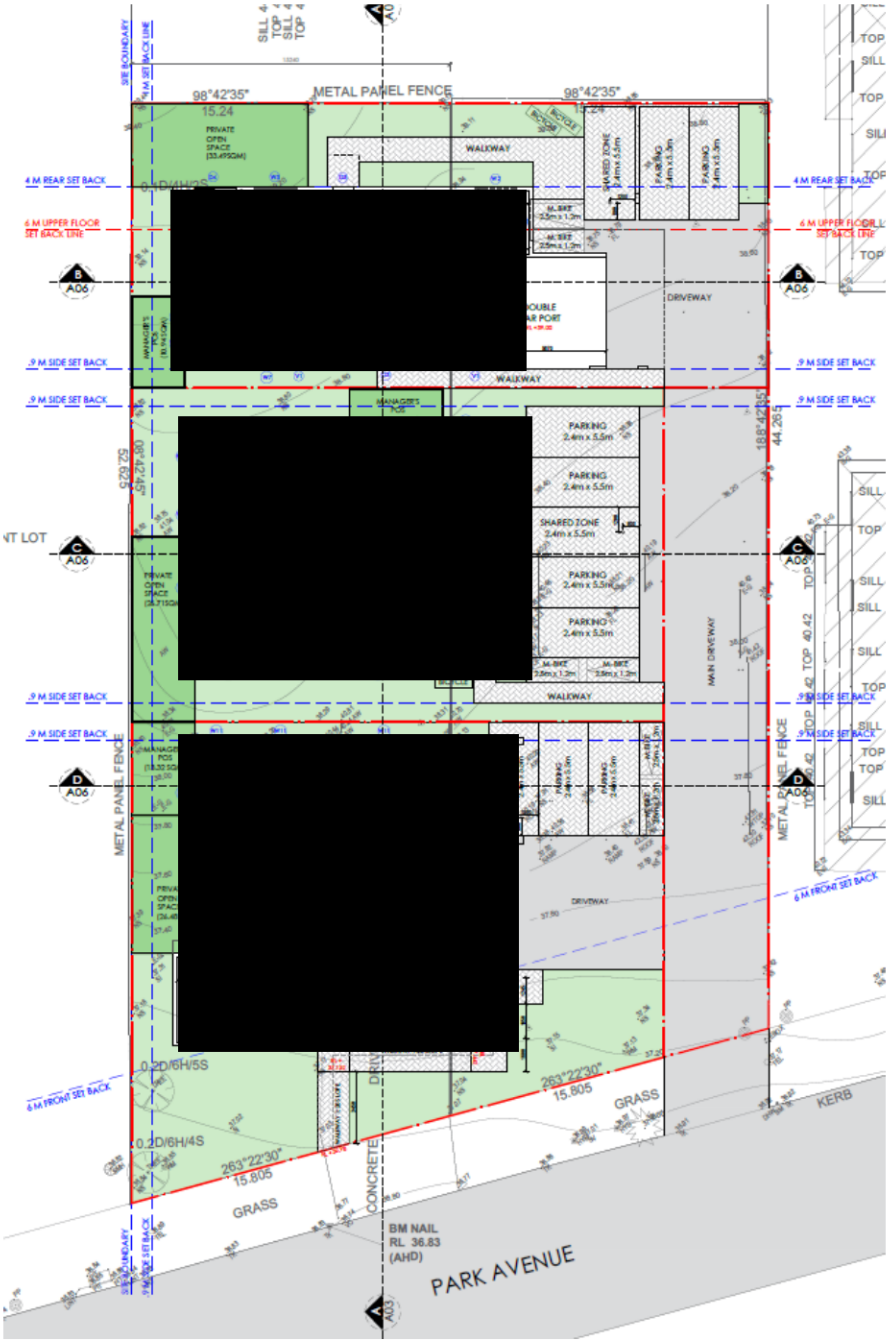

Figure 1: Ground Floor plan

1.2 Purpose

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of BCA 2019. The report will clearly outline those areas (if any) where compliance is not achieved, where areas may warrant redesign to achieve strict BCA compliance or where areas may be able to be assessed against the relevant performance criteria of BCA2019.

1.3 Building Code of Australia

This report is based on the Deemed-to-Satisfy Provisions of the National Construction Code Series Volume 2 - Building Code of Australia, 2019 Edition (BCA) incorporating the State variations where applicable. Please note that the version of the BCA applicable to new building works is the version applicable at the time of the lodgement of the Construction Certificate application to the Accredited Certifying Authority. The BCA is updated generally on a three-yearly cycle, starting from the 1st of May 2016.
For the purposes of the Building Code of Australia (BCA) each building may be classified as follows.

Table 1. Building Classification

Class	Description
1b	Boarding House

1.4 Limitations

This report does not include nor imply any detailed assessment for design, compliance or upgrading for: the structural adequacy or design of the building; the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and the design basis and/or operating capabilities of any proposed electrical, mechanical or hydraulic fire protection services.
This report does not include or imply compliance with : the National Construction Code – Plumbing Code of Australia Volume 3 the BCA provisions relevant to access for people with a disability. Note: Access requirements for people with disabilities in Class 1b buildings are contained in Part D3 of NCC Volume One – Refer to separate Access Report. the requirements for Construction of Buildings in Bushfire Areas as outlined in AS3959. Demolition Standards not referred to by the BCA; Work Health and Safety Act 2011; Requirements of other Regulatory Authorities including, but not limited to, Telstra, Sydney Water, Electricity Supply Authority, WorkCover, Roads and Maritime Services (RMS), Roads and Transport Authority, Local Council, ARTC, Department of planning and the like; and Conditions of Development Consent issued by the Local Consent Authority.

1.5 Design Documentation

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

2 STATEMENT OF COMPLIANCE

The architectural design documentation as referred to in this report has been assessed against the applicable provisions of the Building Code of Australia, (BCA2019) and it is considered that such documentation complies or is capable of complying (as outlined in Annexure B) with that Code.

ANNEXURE A - DESIGN DOCUMENTATION

This report has been based on the following design documentation.

Architectural Plans Prepared by Archidrome Pty Ltd			
Drawing Number	**Revision**	**Date**	**Title**
A00	R-00	03.11.2020	SITE ANALYSIS
A01_1	R-01	23.10.2020	SUB-DIVISION PLAN
A01	R-01	03.11.2020	SITE & GROUND FLOOR PLAN
A02	R-02	23.10.2020	FIRST FLOOR PLAN
A03	R-02	03.11.2020	ROOF PLAN
A04	R-02	03.11.2020	SECTIONS
A05	R-01	03.11.2020	ELEVATIONS_LOT 1
A06	R-00	22.10.2020	ELEVATIONS_LOT 2
A07	R-00	22.10.2020	ELEVATIONS_LOT 3
A08	R-01	23.10.2020	EXTERNAL DOOR & WINDOW SCHEDULE
A09	R-02	03.11.2020	GROUND FLOOR PLAN AREA SCHEDULE
A10	R-01	23.10.2020	FIRST FLOOR PLAN AREA SCHEDULE
A11	R-02	03.11.2020	GROUND FLOOR PLAN GFA CALCULATION
A12	R-01	23.10.2020	FIRST FLOOR PLAN GFA CALCULATION
A13	R-00	27.10.2020	MATERIAL SCHEDULE
A14	R-00	27.10.2020	SHADOW DIAGRAMS
A15	R-00	27.10.2020	STREETSCAPE ELEVATION
A15_1	R-00	28.10.2020	PARKSIDE FRONTAGE (WEST) ELEVATIONS FOR LOT 1, 2 & 3
A16	R-00	27.10.2020	3D VIEWS
A17	R-00	27.10.2020	3D VIEWS

A18	R-00	27.10.2020	3D VIEWS
A19	R-00	27.10.2020	NOTIFICATION PLAN LOT 1
A20	R-00	27.10.2020	NOTIFICATION PLAN LOT 2
A21	R-00	27.10.2020	NOTIFICATION PLAN LOT 3

ANNEXURE B – DETAILED BCA 2019 BUILDING ASSESSMENT

Outlined below is a detailed assessment of the Deemed-to-Satisfy Provisions of the Building Code of Australia (BCA) including the State variations where applicable.

Volume 2 of the BCA2019 specifies the Deemed-to-Satisfy (DtS) provisions as being in the form of either Acceptable construction manuals or Acceptable construction practice.

Where an Acceptable construction manual and an Acceptable construction practice contained in the same Part of Section 3 are deemed to satisfy the same component of a Performance Requirement, in order to comply with the Deemed-to-Satisfy Provisions it is only necessary to satisfy—

1. the appropriate Acceptable construction manual; or
2. the appropriate Acceptable construction practice.

Where an Acceptable construction manual and an Acceptable construction practice are deemed to satisfy different components of a Performance Requirement, compliance with the Deemed-to-Satisfy Provisions may require satisfying both the listed Acceptable construction manual and the Acceptable construction practice for their specific components.

All Deemed-to-Satisfy clauses that are applicable to the subject building have been referred to below, including a comment adjacent to each clause of the proposal's ability to satisfy each respective clause.

The abbreviations outlined below have been used in the following table.

NA	Not Applicable. The Deemed-to-Satisfy clause is not applicable to the proposed design.
Complies	The relevant provisions of the Deemed-to-Satisfy clause have been satisfied by the proposed design.
COMPLIES*	Complies at DA stage BCA review to be done at Construction Certificate stage plans
FI	Further Information is necessary to determine the compliance potential of the building design.
PS	Performance Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
DNC	Does Not Comply.

Noted	BCA Clause simply provides a statement not requiring specific design comment or confirmation

DEEMED TO SATISFY CLAUSE ASSESSMENT

Table 3. Deemed to Satisfy Clause Assessment

Clause	Comment	Status
Part 3.0 Structural provisions	Structural engineer to provide structural drawings/details and accompanying structural design certificate at CC stage to demonstrate that all building elements will comply with Part 3.0 of the BCA.	COMPLIES*
Part 3.1.2 Earth retaining structures	Not applicable	NA
Part 3.1.3 Drainage	Drainage must comply with Part 3.1.2 of the BCA, AS/NZS 3500.3-2018 or AS/NZS 3500.3-2018.	COMPLIES*
Part 3.1.4 Termite risk management	• Termite risk management is required to be provided to any primary building elements that are subject to termite attack. • Where a termite management system is required it must— (a) be selected appropriate to BCA Table 3.1.4.1; and (b) comply with— (i) AS 3660.1-2014; or (ii) have been tested and passed the tests required by Section 5 of AS 3660.3-2014; and (c) have a durable notice installed in accordance with 3.1.4.4; and (d) where a chemical termite management system is used, the chemical must be included on the appropriate authority's pesticides register. • A durable notice must be permanently fixed to the building in a prominent location, such as in a meter box or the like, indicating— (a) the termite management system used; and (b) the date of installation of the system; and (c) where a chemical is used, its life expectancy as listed on the appropriate authority's register label; and (d) the installer's or manufacturer's recommendations for the scope and frequency of future inspections of termite activity.	COMPLIES*
Part 3.2 Footings and slabs	Footings and slabs are to be constructed in accordance with Part 3.2 of the BCA or AS 2870-2011 except that for the purposes of Clause 5.3.3.1 of AS 2870-2011 a damp-proofing membrane is required to be provided. Any proposed piled footings must be designed in accordance with AS 2159-2009.	COMPLIES*
Part 3.3 Masonry	Masonry elements must be designed and constructed in accordance with AS 3700-2018 and AS 4773 Parts 1 & 2-2015.	COMPLIES*

Clause 3.4.0.2 Structural software	Structural software used in the design must be in accordance with Clause 3.4.0.2 of the BCA.	COMPLIES*
Part 3.4.1 Subfloor ventilation	Not applicable	NA
Part 3.4.2 Steel framing	The criteria for steel framing are satisfied if it is designed and constructed in accordance with one of the following: • NASH Standard Residential and Low-Rise Steel Framing Part 1 & 2. • AS 4100-1998 Steel Structures and • AS/NZS 4600-2018 Cold-formed steel structures.	COMPLIES*
Part 3.4.3 Timber framing	Timber framing must be designed and constructed in accordance with AS 1684.2-2010 Residential timber-framed construction Non-cyclonic areas or AS 1684.4-2010.	COMPLIES*
Part 3.4.4 Structural steel members	Structural steel members must be designed and constructed in accordance with AS 4100-1998, AS/NZS 4600-2018 or Part 3.4.4 of the BCA.	COMPLIES*
Part 3.5.1 Sheet roofing	Metal sheet roofing must comply with AS 1562.1-2018.	COMPLIES*
Part 3.5.3 Gutters and downpipes	Gutters and downpipes must be designed and installed in accordance with Part 3.5.3 of the BCA or AS/NZS 3500.3-2018 Stormwater Drainage.	COMPLIES*
Part 3.5.4 Wall cladding	Wall cladding: must be installed in accordance with NCC 3.5.4 and its sub clauses.	COMPLIES*
Part 3.5.5 Metal wall cladding	Metal wall cladding must be designed and constructed in accordance with AS 1562.1.	COMPLIES*
Part 3.6 Glazing	Glazing in the external wall must be designed and constructed in accordance with AS 2047-2014. Glazed assemblies not in an external wall must be designed and constructed in accordance with AS 1288-2006.	COMPLIES*
Clause 3.7.1.1 General concession – non-combustible materials	The following materials, though combustible or containing combustible fibres, may be used wherever a non-combustible material is required in the Housing Provisions: (a) Plasterboard. (b) Perforated gypsum lath with a normal paper finish. (c) Fibrous-plaster sheet. (d) Fibre-reinforced cement sheeting. (e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thick and where the Spreadof-Flame Index of the product is not more than 0. (f) Sarking-type materials that do not exceed 1 mm in thickness and have a flammability index not greater than 5. (g) Bonded laminated materials where— (i) each lamina, including any core, is non-combustible; and (ii) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and	Note

	(iii) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively.	
Clause 3.7.1.2 Fire hazard properties	Sarking-type materials used in the roof must have a flammability index not greater than 5 when tested to AS 1530.2. Flexible ductwork used for the transfer of products initiating from a heat source that contains a flame must comply with the fire hazard properties set out in AS 4254.1.	COMPLIES*
Clause 3.7.2.7 Allowable encroachments	Encroachments allowed within 900 mm of an allotment boundary are— (i) non-combustible fascias, gutters and downpipes; and (ii) light fittings, electricity or gas meters, aerials or antennas; and (iii) pergolas, sun blinds or water tanks (see Figure 3.7.2.9); and (iv) unroofed terraces, landings, steps and ramps, not more than 1 m in height. Encroachments allowed up to but not closer than 450 mm from an allotment boundary are— (i) combustible fascias, gutters and downpipes (see Figure 3.7.2.9); and (ii) eaves with non-combustible roof cladding and non-combustible lining; and (iii) flues, chimneys, pipes, domestic fuel tanks, cooling or heating appliances or other services.	COMPLIES*
Part 3.7.3 Fire protection of separating walls and floors	Not applicable	NA
Part 3.7.4 Fire separation of garage top dwellings	Not applicable	NA
Clause 3.7.5.2 Requirements for smoke alarms	Smoke alarms must— • Comply with AS 3786-2014; and • be connected to the consumer mains power where consumer power is supplied to the building; and • be interconnected where there is more than one alarm.	COMPLIES*
Clause 3.7.5.4 Location – Class 1b buildings	In a Class 1b building, smoke alarms must be located — (a) in every bedroom; and (b) in every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building; and (c) on each other storey.	COMPLIES*

Clause 3.7.5.5 Installation of smoke alarms	Smoke alarms required by 3.7.5.3 and 3.7.5.4 must be installed on or near the ceiling, in accordance with the following: (a) Where a smoke alarm is located on the ceiling it must be— (i) a minimum of 300 mm away from the corner junction of the wall and ceiling; and(ii) between 500 mm and 1500 mm away from the high point and apexes of the ceiling, if the room has a sloping ceiling. (b) Where (a) is not possible, the smoke alarm may be installed on the wall, and located a minimum of 300 mm and a maximum of 500 mm off the ceiling at the junction with the wall	COMPLIES*
Clause 3.7.5.6 Lighting to assist evacuation – Class 1b buildings	In a Class 1b building, a system of lighting must be installed to assist evacuation of occupants in the event of a fire, and— (a) be activated by the smoke alarm required by 3.7.5.4(b); and (b) consist of— (i) a light incorporated within the smoke alarm; or (ii) the lighting located in the corridor, hallway or area served by the smoke alarm.	COMPLIES*
Clause 3.8.1.2 Wet areas	Building elements in wet areas within a building must— (a) be waterproof or water resistant in accordance with Table 3.8.1.1; and (b) comply with AS 3740-2010.	COMPLIES*
Clause 3.8.1.3 External above ground membranes	Waterproofing membranes for external above ground use must comply with AS 4654-2012 Parts 1 and 2.	COMPLIES*
Part 3.8.2 Room heights	Heights of rooms and other spaces (see Figure 3.8.2.1) ust be not less than– (a) in a habitable room excluding a kitchen — 2.4 m; and (b) in a kitchen — 2.1 m; and (c) in a corridor, passageway or the like — 2.1 m; and (d) in a bathroom, shower room, laundry, sanitary compartment, airlock, pantry, storeroom, garage, car parking area or the like — 2.1 m; and (e) in a room or space with a sloping ceiling or projections below the ceiling line within— (i) a habitable room - a height of not less than 2.4 m over two-thirds of the floor area of the room or space; and (ii) a non-habitable room — a height of not less than 2.1 m for at least two-thirds of the floor area of the room or space, and when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included; and (f) in a stairway, ramp, landing, or the like — 2.0 m measured vertically above the nosing line of the stairway treads or the floor surface of a ramp, landing or the like.	Complies
Clause 3.8.3.2 Facilities	A Class 1 building must be provided with a kitchen sink and facility for preparation of cooking food, a bath or shower, a closet pan and washbasin and clothes washing facilities comprising of at least one washtub and space for a washing machine.	Complies
Clause 3.8.3.3 Construction of sanitary compartments	The door to a fully enclosed sanitary compartment must— (a) open outwards; or (b) slide; or (c) be readily removable from the outside of the compartment,	COMPLIES*

	unless there is a clear space of at least 1.2 m between the closet pan within the sanitary compartment and the doorway.	
Clause 3.8.4.2 Natural light	Natural lighting must be provided in a Class 1 building to all habitable rooms, in accordance with the following: a) Natural lighting must be provided by— (i) windows, excluding roof lights that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (ii) roof lights that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and (B) are open to the sky; or (iii) a proportional combination of windows and roof lights required by (i) and (ii). b) A window required to provide natural light that faces a boundary of an adjoining allotment must not be less than a horizontal distance of 900 mm from that boundary. c) Natural lighting to a room in a Class 1 building may come through a glazed panel or opening from an adjoining room (including an enclosed verandah) if— (i) the glazed panel or opening has an area of not less than 10% of the floor area of the room to which it provides light; and (ii) the adjoining room has— (A) windows, excluding roof lights that— (aa) have an aggregate light transmitting area of not less than 10% of the combined floor area of both rooms; and (bb) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (B) roof lights that— (aa) have an aggregate light transmitting area of not less than 3% of the combined floor area of both rooms; and (bb) are open to the sky; or (C) a proportional combination of windows and roof lights required by (A) and (B). (iii) the areas specified in (i) and (ii) may be reduced as appropriate if direct natural light is provided from another source.	COMPLIES
Clause 3.8.4.3 Artificial lighting	Sanitary compartments, bathrooms, shower rooms, airlocks and laundries must be provided with artificial light if natural lighting in accordance with the relevant provisions of 3.8.4.2 is not available— (a) at a rate of not less than one light fitting per 16 m2 of floor area; or (b) in accordance with AS/NZS 1680.0-2009.	COMPLIES*

Clause 3.8.5.2 Ventilation requirements	Ventilation must be provided to a habitable room, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose by any of the following means: (a) Openings, windows, doors or other devices which can be opened— (i) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and (ii) open to— (A) a suitably sized court, or space open to the sky; or (B) an open verandah, carport, or the like; or (C) an adjoining room in accordance with (b) (ii) open to— (A) a suitably sized court, or space open to the sky; or (B) an open verandah, carport, or the like; or (C) an adjoining room in accordance with (b). (b) Natural ventilation to a room may come through a window, opening, door or other device from an adjoining room (including an enclosed verandah) if— (i) the room to be ventilated or the adjoining room is not a sanitary compartment; and (ii) the window, opening, door or other device has a ventilating area of not less than 5% of the floor area of the room to be ventilated; and (iii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 5% of the combined floor areas of both rooms; and (iv) the ventilating areas specified may be reduced as appropriate if direct natural ventilation is provided from another source. (See Figure 3.8.5.1) (c) An exhaust fan or other means of mechanical ventilation may be used to ventilate a sanitary compartment, laundry or bathroom, or where mechanical ventilation is provided in accordance with 3.8.5.3(b), provided contaminated air exhausts— (i) directly to outside the building by way of ducts; or (ii) into a roof space that— (A) is adequately ventilated by open eaves, and/or roof vents; or (B) is covered by roof tiles without sarking or similar materials which would prevent venting through gaps between the tiles.	COMPLIES*
Clause 3.8.5.3 Location of sanitary compartments	Sanitary compartments must not open directly into a kitchen or pantry unless— (a) access is by an airlock, hallway or other room, (see Figure 3.8.5.2); or (b) the sanitary compartment is provided with an exhaust fan or other means of mechanical exhaust ventilation	COMPLIES*
Part 3.8.6 Sound insulation	Not applicable	NA

Clause 3.8.7.2 Pliable building membrane	(a) Where a pliable building membrane is installed in an external wall, it must— (i) comply with AS/NZS 4200.1; and (ii) be installed in accordance with AS 4200.2; and (iii) be a vapour permeable membrane for climate zones 6, 7 and 8; and (iv) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. (b) Except for single skin masonry or single skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity.	COMPLIES*
Clause 3.8.7.3 Flow rate and discharge of exhaust systems	(a) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of— (i) 25 L/s for a bathroom or sanitary compartment; and (ii) 40 L/s for a kitchen or laundry. (b) Exhaust from a bathroom, sanitary compartment, or laundry must be discharged— (i) directly or via a shaft or duct to outdoor air; or (ii) to a roof space that is ventilated in accordance with 3.8.7.4.	COMPLIES*
3.8.7.4 Ventilation of roof spaces	(a) Where an exhaust system covered by 3.8.7.3 discharges into a roof space, the roof space must be ventilated to outdoor air through evenly distributed openings. (b) Openings required by (a) must have a total unobstructed area of 1/300 of the respective ceiling area if the roof pitch is more than 22°, or 1/150 of the respective ceiling area if the roof pitch is not more than 22°. (c) 30% of the total unobstructed area required by (b) must be located not more than 900 mm below the ridge or highest point of the roof space, measured vertically, with the remaining required area provided by eave vents.	COMPLIES*
Clause 3.9.1.2 Stairway construction	(a) The stairways must be designed to take loading forces in accordance with AS/NZS 1170.1 and must have— (ii) goings (G), risers (R) and a slope relationship quantity (2R + G) in accordance with Table 3.9.1.1, except; and (iii) constant goings and risers throughout each flight, and the dimensions of goings (G) and risers (R) are considered constant if the variation between— (A) adjacent risers, or between adjacent goings, is no greater than 5 mm; and (B) the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm; and (iv) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads.	COMPLIES*
Clause 3.9.1.3 Ramps	To comply with AS1428.1	COMPLIES*

Clause 3.9.1.4 Slip-resistance	(a) Treads must have— (i) a surface with a slip-resistance classification not less than that listed in Table 3.9.1.3 when tested in accordance with AS 4586; or (ii) a nosing strip with a slip-resistance classification not less than that listed in Table 3.9.1.3 when tested in accordance with AS 4586. (c) Landings, where the edge leads to the flight below, must have— (i) a surface with a slip-resistance classification not less than that listed in Table 3.9.1.3 when tested in accordance with AS 4586, for not less than 190 mm from the stair nosing; or (ii) a nosing strip with a slip-resistance classification not less than that listed in Table 3.9.1.3 when tested in accordance with AS 4586.	COMPLIES*
Clause 3.9.1.5 Landings	Landings must have a gradient not steeper than 1:50.	Complies
Clause 3.9.1.6 Thresholds	To comply with AS1428.1	COMPLIES*
Clause 3.9.2.3 Construction of barriers to prevent falls	Not applicable	NA
Clause 3.9.2.4 Handrails	Handrails to the stairways must— (i) be located along at least one side of the flight; and (ii) be located along the full length of the flight; and (iii) have the top surface of the handrail not less than 865 mm vertically above the nosings of the stair treads; and (iv) have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions, or the like.	COMPLIES*
Clause 3.9.2.5 Construction of wire barriers	Not applicable	NA
Clause 3.9.2.6 Protection of openable windows - bedrooms	a) Windows must be provided with protection if the floor below the window in a bedroom is 2m or more above the surface beneath. b) Where the lowest level of the window opening is less than 1.7m above the floor, a window opening covered by (a) must comply with the following: (i) The openable portion of the window must be protected with– A. a device to restrict the window opening; or B. a screen with secure fittings. (ii) A device or screen required by (i) must– A. not permit a 125 mm sphere to pass through the window opening or screen; and B. resist an outward horizontal action of 250 N against the– aa. window restrained by a device; or bb. screen protecting the opening; and C. have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden. c) A barrier with a height not less than 865 mm above the floor is required to an openable window– (i) in addition to window protection, when a child resistant screen release mechanism is required by (b)(ii)(C). d) A barrier covered by (c) must not– (i) permit a 125 mm sphere to pass through it; and	COMPLIES*

	(ii) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing.	
Clause 3.9.2.7 Protection of openable windows — rooms other than bedrooms	Not applicable	NA
Part 3.10.1 Swimming pools	Not applicable	NA
Part 3.10.2 Earthquake areas	Not applicable	NA
Part 3.10.3 Flood hazard areas	Not applicable	NA
Part 3.10.4 Construction in alpine areas	Not applicable	NA
Part 3.10.5 Construction in bushfire prone areas	Not applicable	NA
Part 3.10.6.2 Fixing decks and balconies to external walls	Not applicable	NA
Clause 3.10.6.3 Flashings to the junction of the walling plate and the external wall	Not applicable	NA
3.10.6.4 Bracing	Not applicable	NA
Part 3.10.7 Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues	Not applicable	NA
NSW Part 1.1 Garage top dwellings acceptable construction practice	Not applicable	NA
NSW 3.12.1 Application of NSW Part 3.12.1	(b) NSW PART 3.12.1 only applies to thermal insulation in a Class 1 or 10 building where a development consent specifies that the insulation is to be provided as part of the development. (c) In (b), the term development consent has the meaning given by the Environmental Planning and Assessment Act 1979. (d) The Deemed-to-Satisfy Provisions of this Part for thermal breaks apply to all Class 1 buildings with a conditioned space.	Note

NSW 3.12.1.1 (a) Thermal insulation	Thermal insulation in a building must comply with the national BCA provisions of 3.12.1.1, as follows: (a) Where required, insulation must comply with AS/NZS 4859.1 and be installed so that it— (i) abuts or overlaps adjoining insulation other than at supporting members such as columns, studs, noggings, joists, furring channels and the like where the insulation must butt against the member; and (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that inherently contribute to the thermal barrier; and (iii) does not affect the safe or effective operation of a domestic service or fitting. (b) Where required, reflective insulation must be installed with— (i) the necessary airspace, to achieve the required R-Value between a reflective side of the reflective insulation and a building lining or cladding; and (ii) the reflective insulation closely fitted against any penetration, door or window opening; and (iii) the reflective insulation adequately supported by framing members; and (iv) each adjoining sheet of roll membrane being— (A) overlapped greater than or equal to 150 mm; or (B) taped together. (c) Where required, bulk insulation must be installed so that— (i) it maintains its position and thickness, other than where it crosses roof battens, water pipes, electrical cabling or the like; and (ii) in a ceiling, where there is no bulk insulation or reflective insulation in the external wall beneath, it overlaps the external wall by greater than or equal to 50 mm.	COMPLIES*
NSW 3.12.1.1 (b) Thermal breaks	A thermal break must be provided between the external cladding and framing in accordance with the following: Metal framed roof A roof that— (i) is required to achieve a minimum Total R-Value; and (ii) has metal sheet roofing directly fixed to metal purlins, metal rafters or metal battens; and (iii) does not have a ceiling lining or has a ceiling lining fixed directly to those metal purlins, metal rafters or metal battens (see Figure 3.12.1.1(b)), must have a thermal break, consisting of a material with an R-Value of greater than or equal to 0.2, installed between the metal sheet roofing and its supporting metal purlins, metal rafters, or metal battens. Metal framed wall A wall that— (i) has lightweight external cladding such as weatherboards, fibre-cement or metal sheeting fixed to the metal frame; and (ii) does not have a wall lining or has a wall lining that is fixed directly to the metal frame (see Figure 3.12.1.3(a) and (b)), must have a thermal break, consisting of a material with an R-Value greater than or equal to 0.2,	COMPLIES*

	installed between the external cladding and the metal frame	
NSW 3.12.1.1 (c) Compensation for reduction in ceiling insulation	Compensation for reduction in ceiling insulation must comply with the national BCA provisions of 3.12.1.2(e), as follows: (e) Where, for operational or safety reasons associated with exhaust fans, flues or recessed downlights, the area of required ceiling insulation is reduced, the loss of insulation must be compensated for by increasing the R-Value of insulation in the remainder of the ceiling in accordance with Table 3.12.1.1h.	COMPLIES*
NSW 3.12.1.1 (d) Floor heating and cooling systems	A floor with an in-slab or in-screed heating or cooling system must comply with the national BCA provisions of— (i) 3.12.1.5(a)(ii), (iii) and (e) for a suspended floor; or (ii) 3.12.1.5(c), (d) and (e) for a concrete slab-on-ground.	COMPLIES*
NSW Part 3.12.3 Building sealing	• A seal to restrict air infiltration must be fitted to each edge of any external door, openable window or other such opening when serving a conditioned space or habitable room. NB: Windows and doors complying with the maximum air infiltration rates specified in AS 2047 need not comply. • An exhaust fan must be fitted with a sealing device such as a self-closing damper, filter or the like when serving a conditioned space or habitable room. • Roofs, external walls, external floors and any opening such as a window frame, door frame, roof light frame or the like must be constructed to minimise air leakage when forming part of the external fabric of a conditioned space or habitable room. • Any evaporative cooler must be fitted with a self-closing damper or the like when serving a heated space or habitable room.	COMPLIES*
NSW Part 3.12.5 Building services	• A heated water supply system must be designed and installed in accordance with Part B2 of NCC Volume Three – Plumbing Code of Australia. • Thermal insulation for central heating water piping and heating and cooling ductwork must— (a) be protected against the effects of weather and sunlight; and (b) be able to withstand the temperatures within the piping or ductwork; and (c) use thermal insulation material in accordance with AS/NZS 4859.1 • Central heating water piping must comply with the National provisions of BCA Clause 3.12.5.2. • Heating and cooling ductwork must– (i) achieve the material R-Value in 3.12.5.3(d); and (ii) be sealed against air loss— (A) by closing all openings in the surface, joints and seams of ductwork with adhesives, mastics, sealants or gaskets in accordance with AS 4254.1 and AS 4254.2 for a Class C seal; or (B) for flexible ductwork, with a draw band in conjunction with a sealant or adhesive tape.	COMPLIES*

COMPLIES* - Complies at DA stage BCA review to be done at Construction Certificate stage plans

Tarun Chadha

Architects Registration #8777