

National Construction Code Assessment Report

PROJECT: 2 – 6 Cavill Ave. ASHFIELD

LOCATION: 2 – 6 CAVILL AVENUE
ASHFIELD
2131

PREPARED FOR: Shayher Alliance Pty. LTD

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Revision History:

Revision	Date	Comment
1	26/10/2020	Concept design assessment for DA
2	06/11/2020	Concept design Re-assessment
3	13/11/2020	PTW Review and feedback
4	24/11/2020	PTW Review and feedback
5.	30/11/2020	Final and RFI
6.	02/12/2020	Final for Issue

	Name	Date	Signed
Prepared By	Richard Evans	02/12/2020	
Checked By	Peter Hofstetter	02/12/2020	

1.0 Executive Summary

1.1 NCC Year

This report documents the relevant clause by clause review of the proposed works against the deemed to satisfy requirements of the National Construction Code of Australia 2019.

Note: The Building Code of Australia (BCA) is now a part of the National Construction Code Series. Throughout this assessment report, references will be made to the National Construction Code or NCC to refer to what was previously known as Volume One of the Building Code of Australia.

1.2 Performance solutions & Fire Engineering items

The following table is a list of departures, or *feasibly acceptable departures* from the NCC deemed-to-satisfy provisions as required by NCC clause A0.10. Unless stated otherwise, these items may be addressed by a fire engineer with a performance solution. Non-fire engineering performance solutions must be documented by a person with relevant expertise. Note that some items below are suggestions for consideration only and may be subject to discussion with the relevant design consultants:

Clause Name	Description of Performance Solution	Performance clauses	NCC Clause	Addressed in FEB / FER
FRL's	<p>Being a mixed-use development, FRLs will vary depending on the classification. Slabs take their FRL from the classification below. It may be possible for the fire engineer to rationalise the FRLs throughout the building. The following loadbearing FRLs apply.</p> <p>CERTIS require structural engineering design specifications detailing the required FRL's are achieved:</p> <ul style="list-style-type: none"> Basement carpark – 60 min Ground floor retail – 180 min Residential units – 90 min Slab to roof (open space to building C) – 120 min 	CP1	Spec C1.1 Table 3	Tba.
Exit Travel Distances	<p>For FER purposes, only the longest (maximum) travel distances will be listed:</p> <ul style="list-style-type: none"> CP Basement 1: <ul style="list-style-type: none"> 77.9m – from the bicycle storage area behind Garbage Storage (East) to exit, CP Basement 2: <ul style="list-style-type: none"> 75.5m – from the bicycle storage area behind Garbage Storage (East) to exit, CP Level 3 (level ground): <ul style="list-style-type: none"> 49.5m to exits stairs, 52.5m to ramp Unit CG 05 (Ground level): <ul style="list-style-type: none"> 22m to exit (requires 20 m) Level 1 - Units to Building B and Building C units C101/4/6 – Do not comply: <ul style="list-style-type: none"> B105 - 11 m to exit Level 2 – Units to Building B (excl. B201), C (excl. C203/4) and D201/2 and D108: <ul style="list-style-type: none"> D201 – 12m (replicated to Levels above) C206 – 11.4m (replicated to Levels above) B205 – 11m (replicated to Levels above) Level 3 – Units A304/5/6/9 and D310: <ul style="list-style-type: none"> A304 – 9.7m to a point of choice (replicated to levels above) D310 – 12 m (replicated to levels above) 	DP4	D1.4	Tba.

Clause Name	Description of Performance Solution	Performance clauses	NCC Clause	Addressed in FEB / FER
Distance between Alternative Exits	<p>The distribution of exits to the 7a part of the building are not in accordance with the deemed to satisfy (“DtS.”) provisions of the NCC allowing a maximum of 60m between exits. The most compromised distances are:</p> <ul style="list-style-type: none"> Basement CP 1 – 101.4m (approx.) between fire isolated exit stairs, measured through a point of choice, Basement CP 2 - 82.5m between fire isolated exit stairs, measured through a point of choice. 	DP4	D1.5	Tba.
Travel via Fire Isolated Exits	<p>FSD 1 discharges within 6m of openings within the same building. The FRL of the wall is assumed however this lobby window needs to be protected internally in accordance with BCA C3.4. or consider under a Fire Engineered performance-based solution</p>	DP4, DP5	D1.7	Tba.

1.3 Drawing mark-ups

The appended plans represent the original plan set assessed
 Subsequent changes have been captured in Plan set (DA) rev. A dated 13/11/2020 (as amended) and form the basis of the final commentary in this report being Rev.6 (Final) – These plans are tabulated in appendix 6 however the original assessed plans remain in-situ.

Refer to Appendix 6 on page 57.

2.0 Introduction

2.1 General

The subject property is located within the local government area of INNER WETS COUNCIL.

Site location is shown below:



2.2 Purpose of the Report

This report has been prepared for Shayher Alliance Pty. LTD to establish compliance to the National Construction Code (NCC) of Australia 2019 .

2.3 Basis of the assessment

This report is based on:

1. Development Application – in remittance phase. No other statutory documents have been submitted for assessment,
2. Architectural plans prepared by PTW Architecture as detailed in the appendix. Certis Job number (file ref) #6190.

2.4 Statutory Approvals

Other statutory approvals may apply to the building. This may include, but is not limited to the following:

- i. Town Planning Development Approval (DA) / Material Change of use Approval,

- ii. Operational works approval,
- iii. Council Plumbing and drainage approval,
- iv. Services and Infrastructure,
- v. Build over sewer approval.

2.5 Planning conditions relating to building work

The following conditions in the town planning approval (DA) relate to building work and must be fulfilled prior to the building approval or Occupation Certificate as indicated below:

Condition Number	Summary	Status
TBA	<p>DA Approval under remittance.</p> <p>Any design requirements in subsequent approvals will need to be considered in terms of the contents of this NCC Report and changes made accordingly.</p> <p>This report should be provided to the nominated/appointed Certifying Authority</p>	To be provided in a documented DA Matrix

2.6 Design and installation / inspection certificates

Nominated Principal Certifying Authority to provide a separate list of required documentation for the project. This will include items such as design certificates and required clearances. This will usually be provided at the design development stage of a project. Subject to engagement for certification services.

2.7 Exclusions

This report does not consider the following except where specifically mentioned;

- i. Local Authority Trade waste
- ii. Local Authority Health (food premises).
- iii. Aged care compliance (Federal Department of Ageing).
- iv. The Disability Discrimination Act 1992.
- v. Assessment of Section J of the NCC
- vi. Other Statutory Authorities (E.g.: EPA).

3.0 National Construction Code of Australia Description

Note: The Building Code of Australia (BCA) is now a part of the National Construction Code Series. Throughout this assessment report, references will be made to the National Construction Code or NCC to refer to what was previously known as Volume One of the Building Code of Australia

Item / Clause		Description or Requirement	
NCC Version		2019	
A1.1	<p>Effective Height:</p> <p>RL's from floor of lowest storey to the floor of the topmost storey measured vertically.</p> <p>Note: Taken from RL's shown on drawings supplied by PTW Architects</p>	<p>Proposed Building A: 27.9m</p> <p>Proposed Building B: 26.2m</p> <p>Proposed Building C: 18.6m</p> <p>Proposed Building D: 24.8m</p>	
A1.1	Climate Zone	Zone 5	
A3.2	Classifications	<p>Class 2 – Residential (Primary)</p> <p>Class 6 – Retail</p> <p>Class 7a – Carpark</p>	
C1.1	<p>Minimum Type of Construction:</p> <p>Building is considered a UNITED BUILDING in accordance with Part A7 NCC (2019)</p>	Type A construction	
C1.2	Maximum Rise in Storeys (United building)	10	
C2.2	<p>Proposed Building is a United Building – Total building floor area (BFA) is a whole of level measurement and not per individual tower.</p> <p>BFA is represented in (m²) – Subject to finalised plans. Floor areas are approximate and must be verified against final plans for DA submission.</p> <p>Note 1 : Floor areas measure to outside of external walls and includes balcony areas if enclosed by walls greater than 1.4m in height,</p> <p>Note 2: GFA to basement is a gross measurement and not a planning measurement. Bin rooms, stair wells , lift shafts and the like are included.</p> <p>Calculations to other levels are based on planning definitions of <i>gross floor area</i> and exclude stairs and lift shafts and the like.</p> <p>NOTE: Measurement of levels Ground – 9 are on a "Gross Floor Area" basis measured from the internal face of the walls congruent with the architectural measurements and not the NCC definition of <i>gross floor area</i>.</p>	Basements 1 & 2 (combined)	10,857
		Carpark Level 3 and ancillary structures	2,092
		Ground	1,406
		Level 1	2,809
		Level 2	2,888
		Level 3	2,978
		Level 4	2,983
		Level 5	2,982
		Level 6	2,737
		Level 7	2,132
		Level 8	1,888
		Level 9	1,273
		Total Building Area	37,025

4.0 NCC clause-by-clause assessment

4.1 General Provisions (NCC Section A)

Clause	Title & clause summary	Assessment Comments	Status
Part A7	United Buildings	The subject building is deemed a United building and is to comply with all requirements of the NCC as if it were a single building.	Note

4.2 Structure (NCC Section B)

Clause	Title & clause summary	Assessment Comments	Status
B1.0-1.4	Structural Provisions	Structural drawings and a design certificate from a registered engineer will be needed: piling, footings, slab work, frames, etc. Design deemed able to meet compliance.	Note

4.3 Fire Safety (NCC Section C)

4.3.1 Fire Resistance & Stability (Part C1)

Clause	Title & clause summary	Assessment Comments	Status
C1.1	Type of construction required	The type of fire resisting construction applicable is TYPE A Construction	Note
C1.2	Calculation of rise in storeys	The rise in storeys is 9	Note
C1.3	Buildings of multiple classification <i>In a building of multiple classifications, the Type of construction required for the building is the most fire-resisting Type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.</i>	The type of fire resisting construction applicable is TYPE A. Refer Specification C1.1 tbl.3 in appendix and under heading #4.34 in the main body of the report.	Note

Clause	Title & clause summary	Assessment Comments	Status
C1.8	<p>Lightweight construction</p> <p><i>Rules for use of lightweight construction</i></p>	<p>Lightweight construction must comply with Spec. C1.8 if:</p> <ul style="list-style-type: none"> Used in a wall system or shaft required to have an FRL or, Used in any fire resisting covering. <p>Final construction plans and specifications are required to demonstrate compliance.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C1.9	<p>Non-combustible building elements</p> <p><i>The following elements must be non-combustible:</i></p> <ul style="list-style-type: none"> <i>External walls and common walls including all elements within (excluding gaskets, caulking, sealants, termite management systems, glass, thermal breaks associated with glazing systems and damp-proof courses)</i> <i>Flooring and floor framing of lift pits</i> <i>Non-loadbearing internal walls where they are required to be fire resisting</i> <i>Certain shafts</i> <p><i>Note that gaskets and seals etc and certain other elements (such as plasterboard) may be used where non-combustible materials are required.</i></p>	<p>Please provide the following:</p> <ul style="list-style-type: none"> Drawings clearly showing the materials being used for each external building element – including walls, soffits, attachments, awnings etc. Wall sections showing components of the external wall including cladding, insulation and sarking. <p>Note that insulation is required to be non-combustible. Please provide test certificates confirming non-combustibility tested to AS1530.1. Refer separate document to be provided by Certis - “Documentation required for Certification” details of materials for which test certificates will be required.</p> <p>Sarking is not to exceed 1mm thick and have a flammability index of 5 or less when used in an external wall of a Type A or B construction.</p> <p>Detailed construction plans and specifications must be remitted for assessment. No wall schedules have been provided for assessment.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C1.10	<p>Fire hazard properties</p> <p><i>Requirements for flammability ratings of floor, wall & ceiling linings. Not required for plasterboard linings.</i></p> <p><i>Applicable to all Class 2 – 9 buildings</i></p>	<p>Please provide the following:</p> <ul style="list-style-type: none"> Drawings / schedules showing location and type of all internal finishes and materials including ceiling insulation, carpets, wall linings, auditorium seating, lift car linings, air handling ductwork. Test certificates confirming the fire hazard properties for materials. <p>Specifications detailing compliance with group numbers detailed in Specification C1.10 are to be provided prior to the release of the CC.</p> <p><i>Note: Building deemed able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
C1.14	<p>Ancillary Elements</p> <p><i>An ancillary element must not be installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless listed in this clause</i></p>	<p>Plans do not provide sufficient detail. Finalised architectural and construction specifications must show any ancillary elements specifically:</p> <ul style="list-style-type: none"> • Signage, • Awnings and shading structures • Service grates or grilles greater than 2 m² in area. <p><i>Please note – any future signage installed, such as to retail areas (that may be approved under a regime different to the Base Building approval), must be the subject of a separate assessment to establish compliance.</i></p> <p><i>Note: Building deemed able to comply</i></p>	Note

4.3.2 Compartmentation and Separation (Part C2)

Clause	Title & clause summary	Assessment Comments	Status
C2.2	General floor area & volume limitations	<p>The Building consists of classes 2,6, and 7a. Type of Construction - A.</p> <p>Therefore the maximum fire compartment size is 8000 m² and the Maximum volume allowed is 48,000 m³.</p> <p>The different classifications contained within the building are fire separated from each other to the degree that the compartment sizes comply .</p> <ul style="list-style-type: none"> • Class 7a parts – Sprinkler protected, • C2.2 not applicable to Class 2 parts. 	Complies
C2.3	Large isolated buildings	The floor are limitations are not exceeded	Not applicable

Clause	Title & clause summary	Assessment Comments	Status
C2.6	<p>Vertical separation of openings in external walls</p> <p><i>In a Type A building Vertical separation is required between openings in external walls. This may be achieved by having 60-minute fire rated separation using one of the following methods:</i></p> <ul style="list-style-type: none"> 900mm spandrel extending not less than 600mm above the upper surface of the intervening floor; or 1100mm horizontal projection from the wall. Balconies may achieve this in some areas. <p><i>Vertical separation is not required between openings in external walls in a fully sprinklered building.</i></p>	<p>There are no parts of the united building having a rise of storeys less than 4 and therefore all parts are assumed to be fire sprinkler protected in accordance with the requirements of BCA E1.5 and AS2118 . On this basis, vertical separation between storeys is not required.</p>	Complies
C2.7	Separation by firewalls	<p>Please confirm detail of firewalls. E.g. partition plans. Refer specification C1.1 for fire ratings required between fire compartments.</p> <p>Clarification of all internal fire ratings required to meet the requirements of Spec. C1.1 for separation is required by way of detailed wall schedules.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C2.8	<p>Separation of classifications in the same storey</p> <p><i>(a) each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or</i></p> <p><i>(b) the parts must be separated in that storey by a fire wall having-</i></p> <p><i>(i) the higher FRL prescribed in Table 3 or 4; or</i></p> <p><i>(ii) the FRL prescribed in Table 5,</i></p> <p><i>of specification C1.1 as applicable, for that element for the Type of construction and the classifications concerned.</i></p>	<p>Fire separation between classifications is required in the following areas:</p> <ol style="list-style-type: none"> Basement 1 and 2 - car park and storage areas/bin room areas. Load bearing internal walls are required to achieve FRL 60/-/- per table 3.9 Spec. C1.1, Ground level – Retail parts bounding lobby to class 2 parts and separating wall to main switch room, Ground Level – Residential components and car parking 3 (CP3). <p><i>Note: Building deemed able to comply</i></p>	Note
C2.9	<p>Separation of classifications in different storeys</p> <p><i>Slabs separating storeys in Type A construction must have the FRL required for the lower storey</i></p>	Concrete slabs	Complies

Clause	Title & clause summary	Assessment Comments	Status
C2.10	<p>Separation of lift shafts</p> <p><i>A lift shaft is required to be in a fire resisting shaft.</i></p>	<p>Assumed the lift shafts are concrete and able to comply. Emergency lifts are required to have a 2-hour fire rating minimum (FRL 120/120/120).</p> <p>Required Emergency lifts noted on plans.</p> <p>Update construction plans and specifications to demonstrate requirements.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C2.11	<p>Stairways and lifts in one shaft</p> <p><i>A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.</i></p>	<p>The lift and stairs are in separate shafts and therefore comply.</p>	Complies
C2.12	<p>Separation of equipment</p> <p><i>The following equipment must be separated from the rest of the building by 2-hour fire rated construction having doorways protected with -/120/30 fire doors:</i></p> <ul style="list-style-type: none"> • Lift motors / control panels. • Emergency generators used to sustain emergency equipment operating in the emergency mode. • Central smoke control plant. • Boilers. • Battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more. 	<p>Applicable to:</p> <ol style="list-style-type: none"> 1. Hydrant pumps to be updated on final plans, 2. Basement Levels (all) – Plant rooms and substations, 3. Lift overruns to each building, 4. Substation kiosk located on Cavill ave. <p><i>Note: Building deemed able to comply</i></p>	Note
C2.13	<p>Electricity supply system</p> <p><i>The following electricity supply systems must be separated from the rest of the building by 2-hour fire rated construction having doorways protected with -/120/30 fire doors:</i></p> <ul style="list-style-type: none"> • Electricity supply substation. • Main switchboard sustaining emergency equipment. • Electrical conductors supplying the above. <p><i>Additionally, emergency switchgear must be separated from non-emergency switchgear by metal partitions designed to minimise the spread of a fault.</i></p>	<p>Please confirm 2-hour fire rating for walls to main switchboards sustaining emergency equipment and substation rooms and kiosk. Also nominate door FRLs on door schedule.</p> <p>Electricity substation location and size to be nominated on final construction plans.</p> <p><i>Note: Building deemed able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
C2.14	Public corridors in Class 2 & 3 buildings <i>In a Class 2 or 3 building, a public corridor, if more than 40 m in length, must be divided at intervals of not more than 40 m with smoke-proof walls and doors complying with Clause 2 of Specification C2.5.</i>	Compliant smoke doors to be installed to all public corridors greater than 40m in length and noted to plans.	Complies

4.3.3 Protection of openings (Part C3)

Clause	Title & clause summary	Assessment Comments	Status
C3.2	Protection of openings in external walls <i>Exposure to fire source features</i>	Assessed plans do not show any openings that trigger compliance with this clause. (See D1.7 – discharge of FSD 1 within 6m of openings in the same building)	Complies
C3.3	Separation of external walls and associated openings in different fire compartments <i>Distance between openings</i>	Not applicable to openings in a class 2 Sole Occupancy unit.	Not applicable
C3.4	Acceptable Methods of protection <i>Fire doors, wall wetting sprinklers and other forms of protection are required to comply with this clause.</i>	Compliance with this clause will be dependent on outcome of C3.2 above. (See D1.7 – discharge of FSD 1 within 6m of openings in the same building – protection required)	Complies
C3.5	Doorways in fire walls	Please nominate fire doors on door schedule and provide details. Doors to achieve FRL -/60/30 for Type A construction unless other requirements apply as specified Doors are to be self-closing or automatic closing in accordance with C3.5 (C) and (d). <i>Note: Building deemed able to comply</i>	Note
C3.6	Sliding fire doors		Not applicable
C3.7	Protection of doorways in horizontal exits		Not applicable

Clause	Title & clause summary	Assessment Comments	Status
C3.8	<p>Openings in fire isolated exits</p> <p><i>Doors leading into fire isolated exits require -/60/30 self-closing fire doors. Doors discharging to open space will only require a fire rating if exposed to a fire source feature (such as a boundary or external wall of another building).</i></p>	<p>Please nominate fire doors on door schedule.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C3.9	<p>Service penetrations in fire isolated exits</p> <p><i>Services must not penetrate fire isolated exits other than fire services or electrical wiring for lighting within the stair. For example, services ducts should be located outside fire stairs.</i></p>	<p>To be confirmed when services drawings are provided.</p> <p>For purposes of DA lodgement, please update construction plans and specifications.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C3.10	<p>Openings in fire isolated lift shafts</p> <p><i>(a) Doorways in the lift shafts must be protected by -/60/- fire doors that-</i></p> <p><i>(i) comply with AS 1735.11; and</i></p> <p><i>(ii) are set to remain closed except when discharging or receiving passengers.</i></p> <p><i>(b) Lift indicator panels - A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than -/60/60 if it exceeds 35000mm² in area.</i></p>	<p>Please provided lift drawings showing fire doors to lifts</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C3.11	<p>Bounding Construction: Class 2, 3 and 4 buildings</p>	<p>Details of fire and acoustic separation of walls of Sole occupancy walls will be needed.</p> <p>Please nominate doors on door schedule and provide detailed wall schedules.</p> <p><i>Note: Building deemed able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
C3.12	<p>Openings in floors and ceilings for services</p> <p>(a) Where a service passes through-</p> <p>(i) a floor that is required to have an FRL with respect to integrity and insulation; or</p> <p>(ii) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (b).</p> <p>(b) A service must be protected-</p> <p>(i) by a shaft with FRL 120/90/90 (-/90/90 if non-loadbearing); or</p> <p>(ii) in accordance with C3.15</p> <p>(c) Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering.</p>	<p>Please provide details of fire rated shafts – update construction plans and specifications</p> <p><i>Note: Building deemed able to comply</i></p>	Note
C3.13	<p>Openings in shafts</p> <p>In a building of Type, A construction, an opening in a wall providing access to a ventilating, pipe, garbage or other service shaft must be protected by-</p> <p>(a) if it is in a sanitary compartment - a door or panel which, together with its frame, is non-combustible or has an FRL of not less than -/30/30; or</p> <p>(b) a self-closing -/60/30 fire door or hopper; or</p> <p>(c) an access panel having an FRL of not less than -/60/30; or</p> <p>(d) if the shaft is a garbage shaft - a door or hopper of non-combustible construction.</p>	<p>Compliance for the garbage shafts/ bin rooms can be achieved with one of the following options:</p> <ul style="list-style-type: none"> Fire rated riser (90/90/90) with chute discharging to a fire rated room in the basement (90/90/90 FRL). Garbage hoppers into riser only need be non-combustible; or Fire rated riser (90/90/90) with no fire rating to room in basement. Fire separation is provided by having garbage hoppers into a riser with a -/60/30 FRL. <p>Please confirm fire ratings and update construction plans and specifications</p> <p><i>Note: Building deemed able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
C3.15	<p>Openings for service installations</p> <p><i>The service, building element and any protection mentioned at the penetrations is to be identical with a prototype assembly of the service, building element or protection method has been tested in accordance with AS 4072.1 AND as 1530.1 and has achieved the required FRL or differ from a prototype assembly of the service, building element and protection method in accordance with Section 4 of AS 4072.1</i></p> <p><i>Penetrations for electrical, mechanical, plumbing etc should be protected to maintain the fire rating of the element protected. This may be via a tested system such as intumescent mastic or fire collars, or for ventilation – fire dampers.</i></p> <p>a) Where a service passes through:</p> <ol style="list-style-type: none"> A floor that is required to have an FRL with respect to integrity and insulation; or A ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (b). <p>b) A service must be protected:</p> <ol style="list-style-type: none"> By a shaft with FRL 120/90/90(-/90/90 if non-loadbearing); or In accordance with C3.15 <p>c) Where a service passes through a floor which is required to be protected by a fire protective covering, the penetration must not reduce the fire performance of the covering.</p>	<p>To be checked during inspection regime after the start of construction</p> <p>FRL must be confirmed in a report from an Accredited Testing Laboratory.</p> <p>Penetrations of fire rated elements will need to be fire sealed by appropriately licensed contractors using tested systems and products. <i>It is a requirement that all completed penetrations to be labelled in accordance with AS4072.1 and that a register is kept of all fire rated penetrations. Certis recommends that the label follow the format suggested in AS 4072.1 as shown below.</i></p> <div data-bbox="934 561 1868 1077"> <p style="text-align: center;">SERVICE PENETRATION AND CONTROL JOINT SYSTEM (TO AS 4072.1) FRL: -/60/60</p> <p>Installed by: (Company/name) (Phone No.)</p> <p>Installation date:</p> <p>Installation reference:</p> <p>Manufacturer: (Name, Address, Phone No.)</p> <p style="text-align: center;">CONTACT THE ABOVE IN THE EVENT OF DAMAGE OR IF REINSTATEMENT IS REQUIRED</p> </div>	Note
C3.16	<p>Construction Joints</p> <p><i>Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner identical with a prototype tested in accordance with AS 1530.4 to achieve the required FRL.</i></p>		Note
C3.17	<p>Columns protected with lightweight construction to achieve an FRL</p> <p><i>This clause simply provides guidance in the application of the NCC</i></p>	<p>Please provide details of any proposed lightweight construction protecting columns.</p> <p><i>Note: Building deemed able to comply</i></p>	Note

4.3.4 Fire-Resisting Construction (Specification C1.1)

Clause	Title & clause summary	Assessment Comments	Status
2.1	<p>Exposure to fire source features</p> <p><i>Fire source features are boundaries to front, sides and rear of the building or other buildings on the same site that are not classified 1 or 10 structures.</i></p>		Complies
2.2	<p>Fire protection for a support of another part</p> <p><i>This clause contains requirements for fire protection of elements supporting other elements with a fire rating.</i></p>	<p>Required for Type A construction.</p> <p>Please update detail on plans for construction</p> <p><i>Note: Building deemed able to comply</i></p>	Note
2.3	<p>Lintels</p> <p><i>A lintel must have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and other conditions are satisfied</i></p>	<p>Required for Type A construction</p> <p><i>Note: Building deemed able to comply</i></p>	Note
2.4	<p>Method of attachment not to reduce the fire-resistance of building elements</p> <p><i>The method of attaching or installing a finish, lining, ancillary element or service installation to a building element must not reduce the fire-resistance of that element to below that required.</i></p>	<p>Please provide fire hazard properties and combustibility test certificates for attachments. Principal Certifying Authority may require evidence of compliance for Occupation Certificate.</p> <p><i>Note: Building deemed able to comply</i></p>	Note
2.5	<p>General concessions</p> <p><i>Concessions may be applicable as follows:</i></p> <ul style="list-style-type: none"> • Steel columns in selected 1 & 2 storey buildings • Timber columns in selected one storey buildings • Structures on roof containing selected equipment • Curtain and panel walls protected by wall wetting sprinklers • Balconies and verandas in selected two storey buildings 	<p>Provide structural engineering design and specifications</p>	Note

Clause	Title & clause summary	Assessment Comments	Status
2.7	<p>Enclosure of shafts</p> <p><i>Shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that required for the walls of a non-loadbearing shaft in the same building (i.e. generally -/120/120), except that these provisions need not apply to:</i></p> <ul style="list-style-type: none"> <i>the top of a shaft which extends beyond the roof covering, other than one enclosing a fire isolated stairway, or;</i> <i>the bottom of a shaft which is non-combustible and laid on ground</i> 		Complies
3.1	<p>Type A fire resisting construction – Fire resistance of building elements</p> <p><i>External walls, Common Walls & bases of lift pits must be non-combustible.</i></p> <p><i>Internal walls w/ an FRL must extend to either:-</i></p> <ul style="list-style-type: none"> <i>u/s of floor above; or</i> <i>u/s of FRL roof or non-FRL roof sheeting; or</i> <i>ceiling with resistance to the incipient</i> <i>spread of fire of 60 minutes.</i> <p><i>Loadbearing internal walls, fire walls and shafts must be of concrete or masonry</i></p> <p><i>Non-loadbearing internal walls w/ an FRL; and non-loadbearing shafts must be non-combustible.</i></p>	<p>Being a mixed-use development, FRLs will vary depending on the classification. Slabs take their FRL from the classification below. Please see a full list of all required FRLs for the building in the appendix.</p> <p>Note the following clauses have concessions for Type A construction:</p> <ul style="list-style-type: none"> 3.2 – concessions for floors 3.5 – roof 3.7- Internal columns and walls 3.9 – Carparks 3.10 – Class 2 & 3 buildings <p><i>Note: Building deemed able to comply</i></p>	Performance Solution
3.6	Type A - Rooflights	Skylights provided	Complies
4.1(b)	<p>External Walls – combustibility</p> <p><i>Any cladding is required to comply with BCA C1.9 and any ancillary elements in external walls must comply with BCA C1.14</i></p>	<p>Design demonstrates that no combustible materials have been used. For certain materials, such as aluminium composite panels, test certificates will be required demonstrating that the material is tested as non-combustible to AS1530.1.</p> <p>Any signage attached to an external wall is subject to compliance with C1.14</p> <p>Note also that insulation in an external wall is required to be non-combustible.</p> <p>Refer appendix “Fire hazard properties / combustibility of materials” for details of materials for which test certificates will be required.</p>	Complies

4.4 Access & Egress (NCC Section D)

4.4.1 Provision for escape (Part D1)

Clause	Title & clause summary	Assessment Comments	Status
D1.1	Application of part	The provisions of Part D1 do not apply within residential sole-occupancy units.	Note
D1.2	<p>Number of exits required</p> <p><i>More than 1 exit is required from each storey in the following situations:</i></p> <ul style="list-style-type: none"> <i>The building has an effective height of more than 25m</i> <i>basements greater than 50m².</i> <i>Class 9b building used as an early childhood centre</i> <i>certain other class 9 buildings.</i> 		Complies
D1.3	<p>When fire isolated exits are required</p> <p><i>Class 2 buildings: Every stairway must be fire-isolated where it connects more than 3 storeys</i></p> <p><i>Class 5-9: Every stairway must be fire-isolated where it connects more than 2 storeys in a non-sprinkler protected building, or more than 3 storeys in a sprinkler protected building.</i></p>		Complies
D1.4	<p>Exit travel distances</p> <p><i>Class 2:</i></p> <ul style="list-style-type: none"> <i>the entrance of a unit must be no more than 6m to an exit or point of choice to alternative exits, or 20m to an exit at Ground</i> <i>common areas to be no more than 20m from an exit or point of choice to alternative exits</i> <p><i>Class 5-9:</i></p> <ul style="list-style-type: none"> <i>20m to an exit or point of choice to alternative exits with 40m total distance to one of those exits; or</i> <i>30m to a single exit at Ground Level (Class 5 & 6 only)</i> 	Extended exit travel distances have been listed in Section C1.2 (page 5) in consideration of a Performance Based Solution	Performance Solution

Clause	Title & clause summary	Assessment Comments	Status
D1.5	<p>Distance between alternative exits</p> <p><i>Must be not less than 9m apart; and not more than 45m apart for Class 2 and 9a; and not more than 60m apart in all other cases</i></p> <p><i>Note: the path of travel must be measured through the point of choice.</i></p>	<ul style="list-style-type: none"> Basement CP 1 – 124.5m between fire isolated exit stairs, measured through a point of choice, Basement CP 2 - 82.5m between fire isolated exit stairs, measured through a point of choice. 	Performance Solution
D1.6	<p>Dimensions of exits and paths of travel to exits</p> <p><i>Unobstructed width of exit and path of travel to the exit must be not less than that prescribed</i></p>	<p>Clear, unobstructed width of 1m (except for doorways) and unobstructed height throughout of 2m (doorways min. 1980mm) in paths of travel to an exit.</p> <p>Requirements for additional widths are not expected to be triggered under cl. D1.6 (C).</p> <p>D1.13 design occupancy requirements – n/a</p> <p>Exits are not required to be adjusted on the basis of the design occupancy</p>	Complies
D1.7	<p><i>Travel via Fire-isolated exits</i></p> <p><i>Restricts doorways opening directly into a fire-isolated exit</i></p> <p><i>Provides restrictions on the areas in which fire isolated stairs can discharge.</i></p> <p><i>Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, that part of the wall must have—</i></p> <p><i>(i) an FRL of not less than 60/60/60; and</i></p> <p><i>(ii) any openings protected internally in accordance with C3.4,</i></p> <p><i>for a distance of 3 m above or below, as appropriate, the level of the path of travel, or for the height of the wall,</i></p> <p><i>whichever is the lesser.</i></p>	<p>FSD 1 discharges within 6m of openings within the same building. The FRL of the wall is assumed however this lobby window needs to be protected internally in accordance with BCA C3.4. or seek a performance based solution.</p>	Performance Solution
D1.9	<p>Travel via non-fire-isolated stairways or ramps</p> <p><i>Distances permitted for travel via a non-fire-isolated stairway</i></p> <p><i>Class 5-9: distance from the floor via stairway to open space must not exceed 80m</i></p>		Complies

Clause	Title & clause summary	Assessment Comments	Status
D1.10	<p>Discharge from exits</p> <p><i>Bollards/ barriers required if there is a risk of vehicles blocking the exits</i></p> <p><i>Exits discharging to open space that is different level to public road to which it is connected, the path of travel to the road must be by- ramps not steeper than 1:8 or note steeper than 1:14 if required to be DtS under D3 except if 9a a stairway complying with DtS provisions</i></p>		Complies
D1.11	<p>Horizontal exits</p> <p><i>Note that horizontal exits cannot be counted as a required exit in an early childhood centre.</i></p>		Not applicable
D1.13	Number of persons accommodated	<p>The design is to be based on the following maximum permissible population loadings:</p> <ol style="list-style-type: none"> Retail 3 m² / person - GFA 119 m² across 1 tenancies. Not applicable to class 2 parts. <p>Note - this clause provides the maximum occupancy loading permitted by gross floor area. Per D1.13 (c), number of persons accommodated can also <i>be calculated by any other suitable means of assessing its capacity.</i></p>	Complies
D1.16	<p>Plant rooms and lift machine rooms: Concession</p> <p><i>Where the plant room does not exceed 100m² ladder access is permitted</i></p>		Note
D1.17	Access to lift pits	Construction Certificate plans must demonstrate compliance with this clause	Note

4.4.2 Construction of exits (Part D2)

Clause	Title & clause summary	Assessment Comments	Status
D2.1	Application of part	This clause provides guidance on the application of the NCC	Note
D2.2	<p>Fire-isolated stairways and ramps</p> <p><i>A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed—</i></p> <p>(a) <i>of non-combustible materials; and</i></p> <p>(b) <i>so that if there is local failure it will not cause structural damage to, or impair the fire resistance of, the shaft.</i></p> <p><i>Refer D2.25 for stairways in timber framed buildings fire isolated stairs.</i></p>	<p>Provide structural engineering design and specifications</p> <p><i>Note: Building deemed able to comply</i></p>	Complies
D2.3	<p>Non-fire isolated stairs and ramps</p> <p><i>In a building with a rise in storeys more than 2, stairs ramps and landings to be in accordance with one of the following:</i></p> <ul style="list-style-type: none"> <i>Clause D2.2</i> <i>Reinforced or prestressed concrete; or</i> <i>steel in no part less than 6 mm thick; or</i> <i>timber that—</i> <ul style="list-style-type: none"> <i>has a finished thickness of not less than 44 mm; and</i> <i>has an average density of not less than 800 kg/m³ at a moisture content of 12%; and</i> <i>has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue.</i> 	<p>Provide structural engineering design and specifications</p> <p><i>Note: Building deemed able to comply</i></p>	Complies
D2.4	<p>Separation of rising and descending stair flights</p> <p><i>There must be no direct connection between rising and descending flights at the level of egress</i></p>		Note

Clause	Title & clause summary	Assessment Comments	Status
D2.7	<p>Installation in exits and paths of travel</p> <p><i>Services or equipment, access to service shafts and any openings to chutes or ducts located in exits and path of travel are to be enclosed by non-combustible construction and smoke seals to the doors.</i></p>	<p>Services cupboards are located throughout the building in paths of travel to exits.</p> <p>This will be checked during inspections. Note that this also applies to central communications equipment as well as switchboards.</p> <p>Building deemed able to comply</p>	Note
D2.8	<p>Enclosure of space under stairs</p> <p><i>Cupboards under stairs must have an FRL of 60mins with doorways fitted with self-closing fire doors.</i></p> <p><i>No cupboards permitted under fire-isolated stair</i></p>	<p>Not applicable within class 2 SOU's.</p> <p>No other enclosures under stairs, to other parts of the building, are shown on plans.</p>	Complies
D2.9	<p>Width of stairways</p> <p><i>For stairways exceeding 2m in width - intermediate handrails are required for the stair to be counted as having an egress width of more than 2m.</i></p>	<p>Please provide handrail details to all stairways. Fire isolated stairs only require 1 handrail.</p> <p>Update construction plans and specifications</p> <p>Building deemed able to comply</p>	Note
D2.10	<p>Pedestrian ramps</p> <p><i>The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586.</i></p>	<p>Please confirm details of ramp gradients.</p> <p>Slip resistance details to be provided. See Appendix 3 for guidance on slip resistance.</p> <p>Building deemed able to comply</p>	Note
D2.11	<p>Fire-isolated passageways</p> <p><i>Passageway to achieve the FRL required by the stair; or in any other case not less than 60/60/60</i></p>		Complies
D2.12	<p>Roof as open space</p> <p><i>To allow roof to be used as an exit it must have an FRL of 120/120/120</i></p>	<p>Applicable to Building C – exit discharges to roof.</p> <p>Update construction plans and specifications.</p> <p>Building deemed able to comply</p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D2.13	<p>Goings & risers</p> <ul style="list-style-type: none"> Goings and risers must be constant throughout the flight; and Risers must not have any openings greater than 125mm; and Maximum riser is 190mm and minimum going is 250mm. <p>Treads must have—</p> <p>(A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS4586; or</p> <p>(B) a nosing strip with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS4586</p>	<p>Please provide stair details showing the goings and riser dimensions. It is strongly recommended that the stairs are designed to achieve a rise of not more than 185mm and a going of not less than 255mm.</p> <p>This will allow the builder a reasonable chance to achieve compliance with the legislated maximum and minimums. The appointed PCA should check the constructed stairs to ensure that the risers and goings are constant throughout the flight. The following tolerances should be permitted:</p> <ul style="list-style-type: none"> Maximum variation of 10mm between the largest and smallest rises and goings. No greater than 5mm difference between consecutive rises / goings. No tolerance permitted for rises or goings outside the permitted range in the NCC. e.g. rises greater than 190mm or goings shorter than 250mm. <p>Stairs to have maximum 18 risers per flight.</p> <p>Please provide details of slip resistance for nosing's or treads. See Appendix 3 for guidance on slip resistance.</p> <p>Building deemed able to comply</p>	Note
D2.14	<p>Landings</p> <p>Maximum gradient 1:50; and not less than 750mm in length</p> <p>Landings must have—</p> <p>(A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS4586; or</p> <p>(B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below;</p>	<p>Please provide details of slip resistance for landings. See Appendix 3 for guidance on slip resistance.</p> <p>Building deemed able to comply</p>	Note
D2.15	<p>Thresholds</p> <p>Steps at doorways are not permitted where the doorway does not open to road/open space or external landing</p>	<p>Please update construction plans and specifications.</p> <p>Building deemed able to comply</p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D2.16	<p>Balustrades and other barriers</p> <ul style="list-style-type: none"> A balustrade to a height of 1m min. with any openings less than 125mm where the change in level is greater than 1m. Horizontal rails or other similar features are not permitted where the change in level is >4m 	<p>Please provide balustrade details including dimensions. It is recommended that balustrades are specified to be min 1050 mm above FFL to allow for any variations that may occur on site.</p> <p>Where the change in level is greater than 4m, consideration to be given to possible climbing points such as GPOs, gas point, condensing units, shade screens.</p> <p>Barriers to roof top are required to be shown on plans.</p> <p>Building deemed able to comply</p>	Note
D2.17	<p>Handrails</p> <p>All stairs and ramps require at least one handrail.</p> <ol style="list-style-type: none"> Located along at least one side of the ramp or flight of stairs, Located on both sides if the width is >2m, In an accessible stair/ramp, comply with BCA D3.3 and AS1428 	<p>Handrails are to be shown on plans and specifications and included in stair details.</p> <p>Update construction plans and specifications</p>	Note
D2.18	<p>Fixed Platforms and walkways</p> <p>Areas for maintenance or specialist workers only may comply with AS1657</p>	<p>Details of maintenance stairs, walkways and ladders to be provided.</p> <p>Roof top and other service areas require compliance – specifically anchor points and service lines.</p> <p>Update plans and specifications.</p> <p>Note: Building able to comply</p>	Note
D2.19	<p>Doorways and doors</p> <p>Doorways are required to comply with this part, namely automatic doors, sliding doors, etc. – battery backup, capable of being opened with a force of less than 110N, etc.</p>	<p>Please provide door schedule.</p> <p>Note: Building able to comply</p>	Note
D2.20	<p>Swinging doors</p> <p>Where the floor area is >200m² the required exit doors are to swing in the direction of egress.</p> <p>For less than 200m² floor area, doors may swing against the direction of egress if a hold open device is provided.</p>	<p>Update construction plans and specifications</p> <p>Note: Building able to comply</p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D2.21	<p>Operation of latch</p> <p><i>Exit doors and doors in the path of travel to be readily openable without a key by a single hand downward action or pushing action on a single device located between 900mm and 1.1m from the floor; or</i></p> <p><i>Doors to be fitted with a fail-safe device which unlocks on activation of alarm and on power failure.</i></p> <p><i>Where the latch operation device is not located on the door leaf the manual controls to power operated doors must be at least 25mm wide and be proud of the surrounding surface.</i></p> <p><i>Note that there are other options available for early childhood centres.</i></p>	<p>Please provide door schedule. Operation of failsafe on alarm & power failure to be checked on inspection.</p> <p>Please indicate on the electrical drawing's location of the manual control to any power operated doors. This must be located not less than 500mm from an internal corner, and for a hinge door, between 1m and 2m from the door leaf in any position, and for a sliding door, within 2m of the doorway and clear of a surface mounted door in the open position.</p> <p>Note: Braille and tactile signage must also identify the latch operation device.</p> <p>Update construction specifications</p> <p><i>Note: Building able to comply</i></p>	Note
D2.22	<p>Re-entry from fire isolated exits</p> <p><i>Doors of fire-isolated stair cannot be locked from the inside if the building has an effective height of >25m</i></p>	<p>Because the building has fire isolated exits serving storeys above an effective height of 25m, the doors in the fire isolated exits must not be able to be locked from the inside unless the doors failsafe open on alarm and-</p> <ul style="list-style-type: none"> on every fourth storey the doors are not able to be locked and a sign is fixed to each door stating that re-entry is available; or at every level, have an intercommunication system or audible or visual alarm operated from within the enclosure provided near each door with a sign fixed adjacent explaining its purpose and method of operation. You may wish to consider having the intercommunication on only every fourth floor as part of a performance solution. <p><i>Note: Building able to comply – only applicable to Building A</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D2.23	<p>Signs on doors</p> <p><i>Signs must be used to warn persons of the operation of fire and smoke doors, must be in capital letters not less than 20 mm high in a colour contrasting with the background and state-</i></p> <p><i>(i) for an automatic door held open by an automatic hold-open device-</i></p> <p><i>“FIRE SAFETY DOOR-DO NOT OBSTRUCT”;</i> or</p> <p><i>(ii) for a self-closing door-</i></p> <p><i>“FIRE SAFETY DOOR</i></p> <p><i>DO NOT OBSTRUCT</i></p> <p><i>DO NOT KEEP OPEN”;</i> or</p> <p><i>(iii) for a door discharging from a fire-isolated exit-</i></p> <p><i>“FIRE SAFETY DOOR-DO NOT OBSTRUCT”</i></p>	<p>To be checked on inspection and construction plans and specifications are to be updated,</p> <p><i>Note: Building able to comply</i></p>	Note
D2.24	<p>Protection of Openable Windows</p> <p><i>A window opening must be provided with protection if the floor outside the window is 2m or more below the floor inside in:</i></p> <p><i>(i) a bedroom in a Class 2 or 3 building or 4 part of a building; or</i></p> <p><i>(ii) a Class 9b early childhood centre.</i></p> <p><i>This protection may be achieved by either:</i></p> <ul style="list-style-type: none"> <i>having the openable part of the window at 1.7m above the floor, or</i> <i>having a child resistant window restricting device, or</i> <i>installing a balustrade or screen (that can resist force), with no openings permitting a 125mm sphere to pass through.</i> <p><i>The height of a barrier under an openable window that is not in a bedroom in a Class 2, 3 or 4 building or Class 9b early childhood centre must be not less than 865mm above the floor of an openable window 4m or more above the surface beneath. The barrier must not permit a 125mm sphere to pass through it and must not have any horizontal or near horizontal elements between 150mm and 760mm above the floor that facilitate climbing.</i></p>	<p>Window schedule required detailing compliance.</p> <p><i>Note: Building able to comply</i></p>	Note
D2.25	<p>Timber Stairways: Concession</p> <p><i>Applicable to sprinkler protected timber framed buildings</i></p>		Not applicable

4.4.3 Access for people with disabilities (Part D3)

Clause	Title & clause summary	Assessment Comments	Status
D3.1	General Building access requirements	<p><i>Please refer to Certis Access Pty LTD Report DDA 6190 (as revisioned)</i></p> <p>The general access requirements for the various classifications and areas of the building are as follows:</p> <ul style="list-style-type: none"> Class 5 to 9 – to and within all areas normally used by the occupants. Class 2 <ul style="list-style-type: none"> access to the door of each sole occupancy unit and to one of each type of common space for use in common by the residents.; and into the adaptable units. 	Complies
D3.2	<p>General building access requirements</p> <p><i>Access to the building must be provided as follows:</i></p> <ul style="list-style-type: none"> Accessways to be provided: <ul style="list-style-type: none"> from main points of pedestrian entry on the allotment; and from another accessible building connected by a pedestrian link from any required accessible carparking space on the allotment Accessways to be provided through the principal pedestrian entrance and through not less than 50% of all pedestrian entrances. <p><i>For buildings with an area over 500m², a pedestrian entrance cannot be more than 50m from an accessible pedestrian entrance.</i></p>	<p>The site plan indicates that access is likely to be achieved from the allotment boundaries to the pedestrian entries.</p> <p>Lifts provide access through the building.</p> <p>Accessible parking spaces have been provided to the basement levels. BCA compliant however further planning requirements may be required in the Development Consent.</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D3.3	<p>Parts of the buildings to be accessible</p> <p><i>Note the following general requirements:</i></p> <ul style="list-style-type: none"> Doors are to be a minimum of 850mm clear of obstructions. For swing doors, this typically requires a 920mm door to allow for the width of the door and door stop. Lifts to have: Handrails, controls and lighting to AS1735.12; audible information identifying level, emergency hands free communication. The force to open a door with a door closer should not exceed 20 N (to open, swing or hold the door open). New requirements for door control / handles. For example, the end of the handle should be turned 20mm to prevent a hand slipping off. Increased door circulation spaces. Switches and controls (including light switches) to be located at a height between 900mm-1100mm. Restrictions on carpet pile heights and backings – i.e. pile height or thickness not to exceed 11mm and backing thickness not to exceed 4mm. This effectively prevents the use of underlays. Requirements for 30% luminance contrast between door leaves, walls, architraves etc. Area of luminance contrast (for example architraves) should be minimum 50mm. Increases in the circulation spaces for WC pans (300mm each dimension). This increases the minimum size of rooms for PWD facilities. Fire Isolated stairways require luminance contrast nosing in accordance with clause 11.1(f)&(g) AS 1429.1-2009 <p>The above is just a highlight of the requirements under the NCC and AS1428.1. The relevant members of the design team and installers should understand the detailed requirements when specifying door hardware, doors, switches. Specifications and drawings should demonstrate compliance with the relevant access provisions - anything not shown on the plans will need to be checked during inspections.</p>	<p>Please provide the following to enable accessible features to be checked:</p> <ul style="list-style-type: none"> stairs including handrails, nosings and tactile indicators. Ramp details Door schedules Carpet details <p><i>Note: Building able to comply.</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D3.4	<p>Exemptions</p> <p><i>The following areas are not required to be accessible:</i></p> <ul style="list-style-type: none"> • <i>An area where access would be inappropriate because of the particular purpose for which the area is used; and</i> • <i>An area that would pose a health or safety risk for people with a disability; and</i> • <i>Any path of travel providing access to the above areas</i> 	<p>The following spaces may be considered for exemption from requiring disabled access:</p> <ul style="list-style-type: none"> • Storerooms, • Plant rooms, • Enclosures containing essential services 	Complies
D3.5	<p>Car parking</p> <p><i>Accessible car parking spaces to comply with AS2890.6.</i></p>	<p>Disabled car parking facilities noted to basement levels 1 and 2 and Car Parking 3 and the coverage is deemed compliant with the minimums specified in the NCC.</p> <p>(Note – compliance with Council’s LEP’s to be determined by way of DA approval)</p> <p>Accessways from disabled car parking spaces to lifts are to be safe and clearly demarcated.</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
D3.6	<p>Identification of accessible facilities, services and features</p> <p><i>Accessible, clear and legible Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness or other symbol as appropriate, in accordance with AS 1428.2009 must identify sanitary facility and lifts.</i></p> <ul style="list-style-type: none"> • Identify each door required by E4.5 to be provided with an exit sign and state Exit and Level followed by floor level and number <p><i>Note the following requirements for signage:</i></p> <ul style="list-style-type: none"> • It should be on the latch side of the door, or if this is not possible, on the door itself; and • Leading edge of the sign to be 50-300mm from the architrave; and • To be white on blue in colour; and • Signage to indicate left- or right-hand pan transfer (LH or RH). • Signage to be provided at each bank of toilets that doesn't contain an accessible adult changing facility, to direct a person to the location of the nearest accessible adult changing facilities. • Signage to be provided as required under D2.21 for operation of latch <p><i>The path of travel from the principal public entrance to these features and facilities should be where their location is not apparent to the building occupant.</i></p>	<p>Requirements to be detailed to construction plans and specifications as applicable</p> <p><i>Note: Building able to comply</i></p>	Note
D3.7	Hearing augmentation		Not applicable
D3.8	<p>Tactile indicators</p> <p><i>Accessible, tactile ground surface indicators must be provided to warn people with a vision impairment that they are approaching- (i) if used by the public- (A) a stairway; and (B) a ramp other than a step ramp and kerb ramp; and (ii) in the absence of a suitable barrier- (A) an overhead obstruction less than 2 m above floor level, other than a doorway; and tactile ground surface indicators must be Type B indicators in accordance with AS 1428.4.1 2009.</i></p>	<p>Tactile indicator locations to be shown to the affected parts – update construction plans and specifications.</p> <p><i>Note: Building able to comply</i></p>	Note
D3.10	<p>Swimming Pools</p> <p><i>Specification D3.10 provides requirements for the accessible water entry/ exit for swimming pools</i></p>		Not applicable

Clause	Title & clause summary	Assessment Comments	Status
D3.11	Ramps <i>A series of ramps must not exceed a vertical rise of more than 3.6 m</i>		Complies

4.5 Services & Equipment (NCC Section E)

4.5.1 Firefighting equipment (Part E1)

Clause	Title & clause summary	Assessment Comments	Status
E1.3	Fire hydrants	<p>Drawings are required from the fire services consultant (including hydrant plans, H patterns, pump room details, boosters etc).</p> <p>Booster location is shown on plans but within 10m of the building and will require protection in accordance with Section 7 of AS2419. Hydrant points are to be shown in each fire isolated exit - update construction plans and specifications</p> <p>Hydrant installation and coverage to be in accordance with AS2419.1 – 2005</p> <p>Full hydraulic design will be required for certification purposes</p> <p><i>Note: Building able to comply</i></p>	Note
E1.4	<p>Fire hose reels</p> <p><i>E1.4 does not apply to—</i></p> <ul style="list-style-type: none"> (a) a Class 2 or 3, 5 building or Class 4 part of a building; or (b) a Class 8 electricity network substation; or (c) a Class 9c aged care building; or (d) classrooms and associated corridors in a primary or secondary school. 	<p>See comments under E1.6 regarding the requirements for fire extinguishers in class 2, 3 and 5 buildings.</p> <p>Full hydraulic design will be required for certification purposes</p> <p>Hose reel coverage required to 7a parts – update construction plans and specifications</p> <p><i>Note: Building able to comply</i></p>	Note
E1.5	Sprinklers	<p>Required to the whole of the building in accordance with the requirements of AS24441</p> <p>Full hydraulic design will be required for certification purposes</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
E1.6	<p>Portable fire extinguishers</p> <p><i>All Classes of building (See Table E1.6)</i></p> <p><i>Extinguishers are required to cover class AE or E fire risks associated with emergency switchboards. This will be checked during construction.</i></p> <p><i>Class 2 or 3 or 5 or Class 4 part where one or more internal fire hydrants are installed, or where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m².</i></p> <p><i>Portable fire extinguishers must be—</i></p> <ul style="list-style-type: none"> <i>(i) an ABE type fire extinguisher; and</i> <i>(ii) a minimum size of 2.5 kg; and</i> <i>(iii) distributed outside a sole-occupancy unit—</i> <ul style="list-style-type: none"> <i>(A) to serve only the storey at which they are located; and</i> <i>(B) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m.</i> <p><i>The fire risks in a Class 2 or 3 building or Class 4 part of a building must include risks within any sole-occupancy units, however portable fire extinguishers are not required to be located within a sole-occupancy unit unless the sole-occupancy unit has a floor area greater than 500 m². For the purposes of this clause, a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building is considered to be a fire compartment</i></p>	<p>Update construction plans and specifications indicating the location, type and size of fire extinguishers.</p> <p><i>Note: Building able to comply</i></p>	Note
E1.8	<p>Fire control centres</p> <p><i>Required for buildings with an effective height above 25 m and classes 6,7, 8 or 9 with a floor area greater than 18,000m²</i></p> <p><i>Fire Control Rooms are required for buildings with an effective height greater than 50m:</i></p> <ul style="list-style-type: none"> <i>i. Impact resistant fire rated masonry to achieve an FRL 120/120/120,</i> <i>ii. Services not related to the functioning of the room must not pass through it,</i> <i>iii. No openings permitted other than those required for access, ventilation and services,</i> <i>iv. All other requirements per clauses 7 – 12 of Spec. C1.8</i> 	<p>Fire Control Centre is indicated to be located in Tower B entry lobby.</p> <p>Full compliance with Spec. C1.8 will be provided once CC plans are issued for assessment.</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
E1.9	Fire precautions during construction <i>Not less than 1 fire extinguisher to suit class A, B and C and electrical fires must be required, once over 12m fire Hydrants and hose reels are to be operation except for the upper 2 stories, booster is to be installed</i>		Note
E1.10	Provision for special hazards		Not applicable

4.5.2 Fire Sprinkler Systems (Specification E1.5)

Clause	Title & clause summary	Assessment Comments	Status
E1.5	Sprinklers	Specification sets out requirements for the design and installation of fire sprinkler systems.	Note

4.5.3 Class 2 and 3 buildings not more than 25m (Specification E1.5a)

Clause	Title & clause summary	Assessment Comments	Status
E1.5a	Class 2 and 3 buildings not more than 25m in effective height <i>Refer to specification for concessions</i>	The development is a united building and will be sprinkler protected throughout.	Not applicable

4.5.4 Smoke hazard management (Part E2)

Clause	Title & clause summary	Assessment Comments	Status
E2.2	<p>General Requirements</p> <p>Notes:</p> <ul style="list-style-type: none"> Alarms in Class 2 or 3 or Class 4 parts must be interconnected Stair pressurisation system required to stair in a class 3 residential care building. Detectors in Class 2 and 3 are not required in areas where the area is likely to result in smoke detectors causing spurious signals and a sprinkler system is installed to the buildings (other than a FPAA101D or FPAA101H system). 	<p>The following smoke hazard management systems are required:</p> <ul style="list-style-type: none"> Air pressurisation required to fire stairs and associated passageways to comply with AS/NZS 1668.1 AS 1670.1 smoke detection and alarm system to all classes within the building. AS 3786 smoke alarms. To be interconnected within each sole occupancy unit. Automatic shutdown of air handling system on activation of smoke detectors and alarm system (where air is circulated to another fire compartment). Sprinkler system <p><i>Note: Building deemed able to comply</i></p>	Note
E2.3	<p>Provision for special hazards</p> <p><i>This clause asks for consideration of additional smoke hazard management measures if a building has special characteristics</i></p>		Not applicable
Spec E2.2d	Residential fire safety systems	This clause is to be referenced on the Design from the dry fire consultant.	Note

4.5.5 Lift installations (Part E3)

Clause	Title & clause summary	Assessment Comments	Status
E3.2	<p>Stretcher facility in lifts</p> <p><i>Required if an emergency lift is required, or the effective height is 12m or more.</i></p> <p><i>The space required for the stretcher is 600 by 2000mm at a height of 1400mm</i></p>	<p>Required dimensions of the lifts shown on assessed plans demonstrate compliance for L x B dimensions. Lift specifications to be included in construction specifications.</p> <p><i>Note: Building able to comply</i></p>	Note
E3.3	<p>Warning against use of lifts in fire</p> <p><i>A warning sign must be displayed where it can be readily seen near every call button for the lifts and comply with the details and dimensions of Figure E3.3 and consist of-</i></p> <p><i>(i) incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall; or</i></p> <p><i>(ii) letters incised or inlaid directly into the surface of the material forming the wall</i></p>	<p>Update construction plans and specifications</p> <p><i>Note: Building able to comply</i></p>	Note
E3.4	<p>Emergency Lifts</p> <p><i>Require for buildings over 25 m and Class 9a not located at street level</i></p> <p><i>Permitted to be combined with passenger lifts in a class 2 building</i></p>	<p>Required to lifts s L3 and L4</p> <p>Lift specifications to be included in construction specifications.</p> <p><i>Note: Building able to comply</i></p>	Note
E3.5	Landings	<p>Landings at lifts are generally required to comply with the DTS provisions of Section D 2.14</p> <p>Update construction plans and specifications</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
E3.6	<p>Passenger lifts</p> <p><i>The lifts must-</i></p> <ul style="list-style-type: none"> i) <i>be provided with a handrail complying with the provisions for a mandatory handrail in AS 1735.12; and</i> ii) <i>have minimum internal floor dimensions complying with AS 1735.12; and</i> iii) <i>have doors with a minimum clear opening complying with AS 1735.12; and</i> iv) <i>be fitted with a series of door opening sensory devices which will detect a 75 mm diameter rod across the door opening between 50 mm and 1550 mm above floor level; and</i> v) <i>have car control buttons complying with Section 7 of AS 1735.12.</i> <p><i>Please provide a specification to indicate compliance.</i></p>	<p>Lift specifications to be included in construction specifications</p> <p><i>Note: Building able to comply</i></p>	Note
E3.7	Fire service controls	Lift specifications to be included in construction specifications	Condition of Approval
E3.8	Aged care building		Not applicable
E3.9	Fire service recall operation switch	Lift specifications to be included in construction specifications	Condition of Approval
E3.10	Lift car fire service control	Lift specifications to be included in construction specifications	Condition of Approval

4.5.6 Visibility in an Emergency, Exit Signs and Warning Systems (Part E4)

Clause	Title & clause summary	Assessment Comments	Status
E4.1- E4.8	<p>Exit and Emergency lighting</p> <p><i>Location and installation in accordance with AS2293</i></p>	<p>Construction plans and specifications to nominate locations.</p> <p>Electrical specifications to incorporate the requirements</p> <p>Note that in locations where exit signs are required, braille signage may also be required under D3.6.</p> <p><i>Note: Building able to comply</i></p>	Note
E4.9	<p>Emergency warning and intercom systems</p> <p><i>Required to comply with AS1670.4 in a building with:</i></p> <p><i>An effective height of over 25m; or</i></p> <p><i>Class 3 more than 2 storeys and used as residential part of a primary or secondary school or accommodation for the aged, children or people with disability; or</i></p> <p><i>Class 3 residential care building; or</i></p> <p><i>Class 9a with a floor area more than 1000m² or a rise more than 2; or</i></p> <p><i>Class 9b buildings used as a school and have a rise of more than 3 storeys or used as a theatre, public hall or the like, having a floor area more than 1000m² or a rise of more than 2.</i></p>	<p>Construction plans and specifications to nominate locations.</p> <p>Electrical specifications to incorporate the requirements</p> <p>Drawings required for sound system and occupant system for emergency purposes (including speaker location, WIP phones, manual call points). Note that WIP phones are required in emergency lifts.</p> <p>NOTE: Building able to comply – update plans and specifications.</p> <p><i>Note: Building able to comply</i></p>	Note

4.6 Health & Amenity (NCC Section F)

4.6.1 Damp & Weatherproofing (Part F1)

Clause	Title & clause summary	Assessment Comments	Status
F1.1	Stormwater drainage	<p>A full hydraulic design and specification (stormwater) must be provided to the PCA for purposes of certification.</p> <p>The hydraulic designer must design the system in accordance with the Council's stormwater management policies, DCP's and in accordance with AS3500 and general engineering principles and practices.</p> <p><i>Note: Building able to comply</i></p>	Note
F1.4	External above ground membranes	<p>Waterproofing membranes for external above ground use must comply with AS4654 Parts 1 & 2. This will apply to external decks, planter boxes and the like.</p> <p><i>Note: Building able to comply</i></p>	Note
F1.5	Roof coverings	<p>This clause provides guidance on the application of the NCC</p> <p><i>Note: Building able to comply</i></p>	Note
F1.6	Sarking	<p>This clause provides guidance on the application of the NCC</p> <p><i>Note: Building able to comply</i></p>	Note
F1.7	Waterproofing wet areas	<p>Waterproofing to the wet areas are to be in accordance with AS3740</p> <p><i>Note: Building able to comply</i></p>	Note
F1.9	Damp-proofing	<p>The damp proof course is to be provided and comply with AS/NZS 2904 or AS3660.1.</p> <p><i>Note: Building able to comply</i></p>	Note
F1.10	Damp-proofing of floors on ground	<p>Vapour barriers to be in accordance with AS 2870.</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
F1.11	<p>Floor wastes</p> <p><i>Floor wastes are to be installed in bathrooms and laundries in Class 2 and Class 3 buildings and Class 4 parts, where those bathrooms and laundries are above another sole-occupancy unit or public space.</i></p> <p><i>The aim of this requirement is to minimise water overflows from fixtures in the specified rooms.</i></p>	<p>Update hydraulic design and specifications</p> <p><i>Note: Building able to comply</i></p>	Note
F1.12	Sub-floor ventilation		Not applicable
F1.13	<p>Glazed assemblies</p> <p><i>Requires openings to comply with the AS 2047 requirements for resistance to water penetration.</i></p>	<p>Update hydraulic design and specifications</p> <p><i>Note: Building able to comply</i></p>	Note

4.6.2 Sanitary & other facilities (Part F2)

Clause	Title & clause summary	Assessment Comments	Status
F2.1	<p>Facilities in residential buildings</p> <p><i>To specify the minimum acceptable sanitary, bathing, laundry and cooking facilities required in Class 2 buildings, Class 3 buildings (for residents only), Class 9c buildings (for residents only) and Class 4 parts.</i></p>	Design as presented demonstrates compliance with this clause.	Complies
F2.2	<p>Calculation of the number of occupants and facilities</p> <p><i>To provide a method for calculating the number of occupants and facilities for the purposes of this part</i></p>		Complies
F2.3	Facilities in Class 3-9 Buildings		Complies

Clause	Title & clause summary	Assessment Comments	Status
F2.4	<p>Facilities for people with disabilities</p> <p><i>To specify the minimum acceptable sanitary and bathing facilities required for people with a disability in Class 1b, Class 2, Class 3, Class 5-9 and Class 10a buildings</i></p> <p><i>NCC 2011 requires that each bank of toilets where there are one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with a n ambulant disability in accordance with AS 1428.1 must be provided for use by males and females. Please provide documentation showing details, including grab rails, pan heights etc</i></p>		Complies
F2.5	<p>Construction of sanitary compartments</p> <p><i>Where cubicle door frames are within 1.2m of the pan either of the following must be provided;</i></p> <ul style="list-style-type: none"> • <i>Outward opening door; or</i> • <i>Sliding door; or</i> • <i>Have lift-off hinges provided</i> <p><i>In an early childhood centre, facilities for use by children must have each sanitary compartment screened by a partition which, except for the doorway, is opaque at a height of 900mm-1200mm above the finished floor level.</i></p>		Complies
F2.6	Interpretation; Urinals and washbasins		Complies
F2.7	Microbial (legionella) control	Applicable only if water heating is provided or central cooling towers are being used as part of the air-conditioning system.	Further information required
F2.8	<p>Slop hoppers</p> <p><i>Required in class 9a & 9c buildings</i></p>		Not applicable
F2.9	Accessible adult change facilities		Not applicable

4.6.3 Room Sizes (Part F3)

Clause	Title & clause summary	Assessment Comments	Status
F3.1	<p>Height of rooms and other spaces</p> <p><i>Minimum height of ceiling within the buildings must be as follows;</i></p> <ul style="list-style-type: none"> Habitable rooms – 2.4m; and Bathrooms, kitchens and the like – 2.1m; and Accessible adult change facility – 2.4m; and Within stairways and landings – 2m; and 		Complies

4.6.4 Light and Ventilation (Part F4)

Clause	Title & clause summary	Assessment Comments	Status
F4.1	<p>Provision of natural light</p> <ul style="list-style-type: none"> Class 2 - all habitable rooms Class 9b – classrooms and playrooms in early childhood centres 	<p>Natural light appears to have been provided to the habitable rooms of all units.</p> <p>Final plans and specifications are required to demonstrate compliance. Window schedules are to be included.</p> <p><i>Note: Building able to comply</i></p>	Note
F4.2	Methods and extent of natural lighting	This clause provides guidance on the application of the NCC	Note
F4.3	Natural light borrowed from adjoining room	This clause provides guidance on the application of the NCC.	Complies
F4.4	Artificial Lighting	<p>Artificial lighting system to comply with AS1680.0. To be confirmed on electrical consultant's design certificate</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
F4.5	<p>Ventilation of rooms</p> <p><i>Ventilation of habitable rooms must be achieved through either;</i></p> <ul style="list-style-type: none"> • <i>Natural ventilation – 5 % of floor area of room; or</i> • <i>Mechanical ventilation in accordance with AS1668.2 and AS3666.1</i> 	<p>Mechanical plans and specifications are required for mechanical ventilation and HVAC arrangements</p> <p>Note that where a dryer is installed to a laundry cupboard, either mechanical ventilation will be required to that space or grilles provided to the cupboard doors.</p> <p>NOTE: Applicable to all parts of the building. Class 2 parts show a combination of mechanical and natural ventilation arrangements.</p> <p><i>Note: Building able to comply</i></p>	Note
F4.6	<p>Natural Ventilation</p> <p><i>Natural ventilation must consist of permanent openings such as windows, doors or the like with</i></p> <ul style="list-style-type: none"> • <i>aggregate openings of 5% of the floor area; and</i> • <i>Open to suitable sized court or space open to the sky; or</i> • <i>An open veranda or carport; or</i> • <i>An adjoining room;</i> • <i>An adjoining room</i> <p><i>Note; this does not apply to a class 8 electricity sub station</i></p>	<p>The units look capable of complying, but a window schedule is needed to confirm.</p> <p><i>Note: Building able to comply</i></p>	Note
F4.7	Ventilation borrowed from adjoining room	This clause provides guidance on the application of the NCC	Note
F4.8	<p>Restriction on position of water closets and urinals</p> <p><i>A room containing a closet pan or urinal must not open directly into :</i></p> <ul style="list-style-type: none"> • <i>A kitchen</i> • <i>Restaurant</i> • <i>A workplace normally occupied by more than one person</i> 		Note

Clause	Title & clause summary	Assessment Comments	Status
F4.9	Airlocks <i>To specify requirements for airlocks or mechanical ventilation where toilets open directly into other rooms</i>		Not applicable
F4.11	Car parks <i>Every storey of a carpark must be provided with a system of either:</i> i. Mechanical ventilation complying with AS1668.2 or, ii. Natural ventilation complying with Section 4 of AS1668.4	Provide mechanical design specification and design statement for the whole of the building. <i>Note: Building able to comply</i>	Note
F4.12	Kitchen local exhaust ventilation <i>The Deemed-to-Satisfy Provisions require exhaust hoods to comply with both AS/NZS 1668.1 and AS 1668.2.</i>	Ground floor retail is assumed not to be a food premises by definition. Use has not been determined and therefore this clause is deemed not applicable.	Not applicable

4.6.5 Sound Transmission and insulation (Part F5)

Clause	Title & clause summary	Assessment Comments	Status
F5.1- F5.7	Sound transmission and insulation.	Details required of sound insulation systems for the following: <ul style="list-style-type: none"> Walls (including areas of discontinuous construction). Floors Services & pumps. Note that it is recommended that waste pipes be acoustically lagged. Report required from acoustic consultant (recommended). See a detailed list of the requirements for acoustic insulation in the appendix. <i>Note: Building able to comply</i>	Note

4.6.6 Condensation management (Part F6)

Clause	Title & clause summary	Assessment Comments	Status
F6.2	Pliable building membrane	<p>Pliable building membrane to comply with AS 4200.1 and must be located on the exterior side of the primary insulation layer of external wall.</p> <p>Except for single skin masonry and single skin concrete, where pliable building membrane is installed in the external wall, the primary water control layer must be separated from water sensitive materials by a drainage cavity.</p> <p><i>Note: Building able to comply</i></p>	Note
F6.3 and 6.4	Flow rate and discharge of exhaust and ventilation of roof spaces	<p>An exhaust system installed a kitchen, bathroom, sanitary compartment or laundry must have a minimum rate of 25L/s for a bathroom or sanitary compartment and 40L/s for a kitchen or laundry.</p> <p>Exhaust from a kitchen must discharge directly or via a shaft or duct to outdoor air.</p> <p>Exhaust from a bathroom, sanitary compartment, or laundry must discharge directly or via a shaft or duct to outdoor air or to a roof space that is vented to outdoor air through evenly distributed openings.</p> <p>Please indicate the duct work on the mechanical drawings. And provide a mechanical design and specification to the Certifying authority</p> <p><i>Note: Building able to comply</i></p>	Note

4.7 Ancillary Provisions (NCC Section G)

4.7.1 Minor Structures and Components (Part G1)

Clause	Title & clause summary	Assessment Comments	Status
G1.1	Swimming pools		Not applicable
G1.2	<p>Refrigerated Chambers, Strong Rooms and Vaults</p> <p><i>Cold rooms are required to have:</i></p> <ul style="list-style-type: none"> <i>a) a door that is capable of being opened from the inside without the use of a key;</i> <i>b) an internal light controlled only by a switch which is located adjacent the entrance door of the cold room;</i> <i>c) an indicator lamp located outside the cold room which is illuminated when the internal light is switched on; and</i> <i>d) an alarm that is located outside the cold room but controllable only from the inside and capable of achieving a sound pressure level of 90dB(A)</i> <i>e) a door with a clear width of not less than 600mm and a height of not less than 1.5m</i> 	Possibly applicable to some retail tenancies.	Not applicable
G1.3	<p>Outdoor Play spaces</p> <ul style="list-style-type: none"> <i>(a) Any outdoor play space in a Class 9b early childhood centre must be enclosed on all sides with a barrier which complies with AS 1926.1.</i> <i>(b) For the purposes of (a), AS 1926.1 is applied as if there is a swimming pool located outside the outdoor play space, so that the barrier restricts children from exiting the premises without the knowledge of staff in the centre.</i> <i>(c) The requirements of (a) do not apply to a wall, including doors and windows, which form part of the Class 9b early childhood centre</i> 	None shown on plans.	Not applicable
Part G2	Boilers, Pressure Vessels, Heating appliances, fireplaces, chimneys and flues		Not applicable

4.7.2 Atrium Construction (Part G3)

Clause	Title & clause summary	Assessment Comments	Status
G3	Atriums		Not applicable

4.7.3 Occupiable Outdoor areas (Part G6)

Clause	Title & clause summary	Assessment Comments	Status
G6	Occupiable Outdoor areas	<p>Applicable to all buildings as these areas are not for the exclusive use of any designated SOU.</p> <p><i>Note: Building able to comply</i></p>	Note

4.8 Special Use Buildings (NCC Section H) – Not Applicable

4.9 Energy Efficiency (NCC Section J)

Clause	Title & clause summary	Assessment Comments	Status
J1-J3	Energy Efficiency	<p>Required for Construction Certificate Stage</p> <p><i>Note: Building able to comply</i></p>	Note

Clause	Title & clause summary	Assessment Comments	Status
J5	Air conditioning and ventilation systems	Required for Construction Certificate Stage <i>Note: Building able to comply</i>	Note
J6	Artificial lighting and power	Lighting to comply with part J6. Compliance should be specified on the electrical engineer's design certificate. NCC 2019 requires motion sensors to fire stairs Required for Construction Certificate Stage <i>Note: Building able to comply</i>	Note
J7.2	Heated water supply	Hot water supply to comply with Part J7. This should be stated on the Hydraulic designer's certificate. Required for Construction Certificate Stage <i>Note: Building able to comply</i>	Note
J7.3	Swimming pool heating and pumping		Not applicable
J7.4	Spa pool heating and plumbing		Not applicable

Clause	Title & clause summary	Assessment Comments	Status
J8	<p>Access for maintenance and facilities for monitoring:</p> <p><i>A building with a floor area of more than 2 500 m must have energy meters configured to enable individual time-of-use energy consumption data recording, in accordance with (c), of the energy consumption of—</i></p> <p><i>(i) air-conditioning plant including, where appropriate, heating plant, cooling plant and air handling fans; and</i></p> <p><i>(ii) artificial lighting; and</i></p> <p><i>(iii) appliance power; and</i></p> <p><i>(iv) central hot water supply; and</i></p> <p><i>(v) internal transport devices including lifts, escalators and moving walkways where there is more than one serving the building; and</i></p> <p><i>(vi) other ancillary plant.</i></p>	Compliance with J8.3 is required	Note

5.0 Other Comments

Item	Title	Assessment and Comment	Status
5.1	<p>Long Service Levy</p> <p><i>If the cost of works exceeds \$25,000, a levy is payable to the Long Service Corporation.</i></p>	<p>Further compliance will be supplied at time of CC</p> <p>Appointed PCA is to ensure that the liability is discharged before the issue of a Construction Certificate</p>	Note

Item	Title	Assessment and Comment	Status
5.2	<p>FRNSW referral</p> <p><i>Referral to Fire Brigade is required for CC applications as follows:</i></p> <ol style="list-style-type: none"> when the design includes performance solutions for category 2 fire safety provisions: <ol style="list-style-type: none"> Class 9a building greater than 2,000 sqm Class 2-9 with a fire compartment greater than 2,000 sqm Class 2-9 building greater than 6,000 sqm If the Certifying Authority's licence has conditions requiring referral When the design includes a performance solution to use external combustible cladding buildings of type A & B construction that don't apply verification method CV3 in its entirety for classes 2-9. <p><i>Note: The application for Initial fire safety report (IFSR) application must be made on the current version of the form. This can be downloaded from the Fire Brigade website https://www.fire.nsw.gov.au/page.php?id=9149. Note: brigade will reject the application if it is not lodged on the current version of the form.</i></p>	<p>If it is necessary, an application for assessment by Fire Brigade, will require the following:</p> <ul style="list-style-type: none"> Fire engineering report (fire engineering brief and meeting with QFRS required prior). Drawings showing the following: <ul style="list-style-type: none"> Hydrant system (including hydrant locations, booster, pumps, tanks). Smoke detection system. Occupant warning system / EWIS. Sprinklers Mechanical (smoke exhaust, a/c shutdown). <p><i>Note: Refer to Principle Certifying Authority</i></p>	Note
5.3	Certification and other required documentation	<p>Certis will provide a checklist detailing the various other documents required to issue the building approval and final certification. This includes items such as:</p> <ul style="list-style-type: none"> Services design certificates. Town planning approval. Other approvals and clearances. Fire hazard properties of materials. <p><i>Note: Refer to Principle Certifying Authority</i></p>	Note

Item	Title	Assessment and Comment	Status
5.4	<p>Town planning</p> <p><i>A copy of the Council Town Planning Departments Approval and endorsed plans of layout must be provided to Certis. The approvals should include the following as appropriate.</i></p> <ul style="list-style-type: none"> • Subdivision • Rezoning • Material Change of Use • Any Court Order Approvals <p><i>The development Permit (Building) cannot be issued until:</i></p> <ul style="list-style-type: none"> • The requirements of any of the conditions of the previous and current Town Planning approval and addressed. This only applies if any of the conditions of the approvals are linked to the issue of the Development Permit (Building). • The appeal period in relation to the planning approval has lapsed. This applies if there were any submitters to the Development Permit (Planning) application. <p><i>Drawings intended for Development permit (Building) must be generally in accordance with approved plan of layout issued by the Council</i></p>	<p>A copy of the Town Planning approval (DA Consent) with Council's endorsed plans is required for the purposes of Certification. For building related matters, the design will be checked for consistency with the approved DA plans and conditions.</p> <p><i>Note: Refer to Principle Certifying Authority</i></p>	Note
5.5	<p>Competent Persons Details</p> <ul style="list-style-type: none"> • Professional Indemnity Insurance • NER Number • NSW Govt Fair Trading License number • Description of relevant work experience. 	<p>Individuals providing certification for design or construction of building work must, if required by legislation, hold the appropriate licence. Those who are not required be licensed must provide a CV that demonstrates they have the necessary experience to sign a design or installation certificate. Only company directors can sign on behalf of a company.</p> <p><i>Note: Refer to Principle Certifying Authority</i></p>	Note

6.0 Appendix 2 – Required Fire Resistance Levels (FRLs)

Note: If a non-loadbearing element is able to be used for a purpose where the Deemed-to-Satisfy Provisions prescribe an FRL for structural adequacy, integrity and insulation, that nonloadbearing element need not comply with the structural adequacy criteria.

TYPE A CONSTRUCTION:

Building element	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6
EXTERNAL WALL (including any column and other building element incorporated within it) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—			
For <i>loadbearing</i> parts—			
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90
For non-loadbearing parts—			
less than 1.5 m	–/ 90/ 90	–/120/120	–/180/180
1.5 to less than 3 m	–/ 60/ 60	–/ 90/ 90	–/180/120
3 m or more	–/–/–	–/–/–	–/–/–
EXTERNAL COLUMN not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source feature</i> to which it is exposed is—			
For loadbearing columns	90/–/–	120/–/–	180/–/–
For non-loadbearing columns	–/–/–	–/–/–	–/–/–
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	120/120/120	180/180/180
INTERNAL WALLS—			
Fire-resisting lift and stair <i>shafts</i> —			
Loadbearing	90/ 90/ 90	120/120/120	180/120/120
Non-loadbearing	–/ 90/ 90	–/120/120	–/120/120
Bounding <i>public corridors</i> , public lobbies and the like—			
Loadbearing	90/90/90	120/–/–	180/–/–
Non-loadbearing	–/ 60/ 60	–/–/–	–/–/–
Between or bounding <i>sole-occupancy units</i> —			
Loadbearing	90/90/90	120/–/–	180/–/–
Non-loadbearing	–/ 60/ 60	–/–/–	–/–/–
Ventilating, pipe, garbage, and like <i>shafts</i> not used for the discharge of hot products of combustion—			
Loadbearing	90/ 90/ 90	120/ 90/ 90	180/120/120
Non-loadbearing	–/ 90/ 90	–/ 90/ 90	–/120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES and COLUMNS—	90/–/–	120/–/–	180/–/–
FLOORS	90/ 90/ 90	120/120/120	180/180/180
ROOFS	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30

SOLUTION FOCUSED THINKING

7.0 Appendix 3 - Slip Resistance Classification:

Application	Surface conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

8.0 Appendix 4 – Acoustic Requirements:

Area	Comments	Sound rating
Floors separating units from: <ul style="list-style-type: none"> other units plant rooms lift shaft stairway public corridor public lobby or the like. areas of other classifications. 	Airborne and impact rating required	$R_w + C_{tr} \geq 50$; and $L_{n,w} \leq 62$
Walls separating units		$R_w + C_{tr} \geq 50$
Walls separating habitable room from: <ul style="list-style-type: none"> Laundry, kitchen, bathroom in an adjoining unit. 	Discontinuous construction required (20mm air gap). Not to be breached by services.	$R_w + C_{tr} \geq 50$
Walls separating a unit from a plant room or lift shaft.	Discontinuous construction required (20mm air gap). Not to be breached by services.	$R_w \geq 50$
Walls separating a unit from: <ul style="list-style-type: none"> stairway public corridor public lobby or the like. areas of other classifications. 		$R_w \geq 50$
Door separating unit from a public corridor, lobby or the like.		$R_w \geq 30$
Duct, soil, waste or water supply pipe, including pipes that is located in a floor or wall cavity, serves or passes through more than one room	Adjacent to habitable room (except kitchen):	$R_w + C_{tr} \geq 40$
	Adjacent to non-habitable room	$R_w + C_{tr} \geq 25$

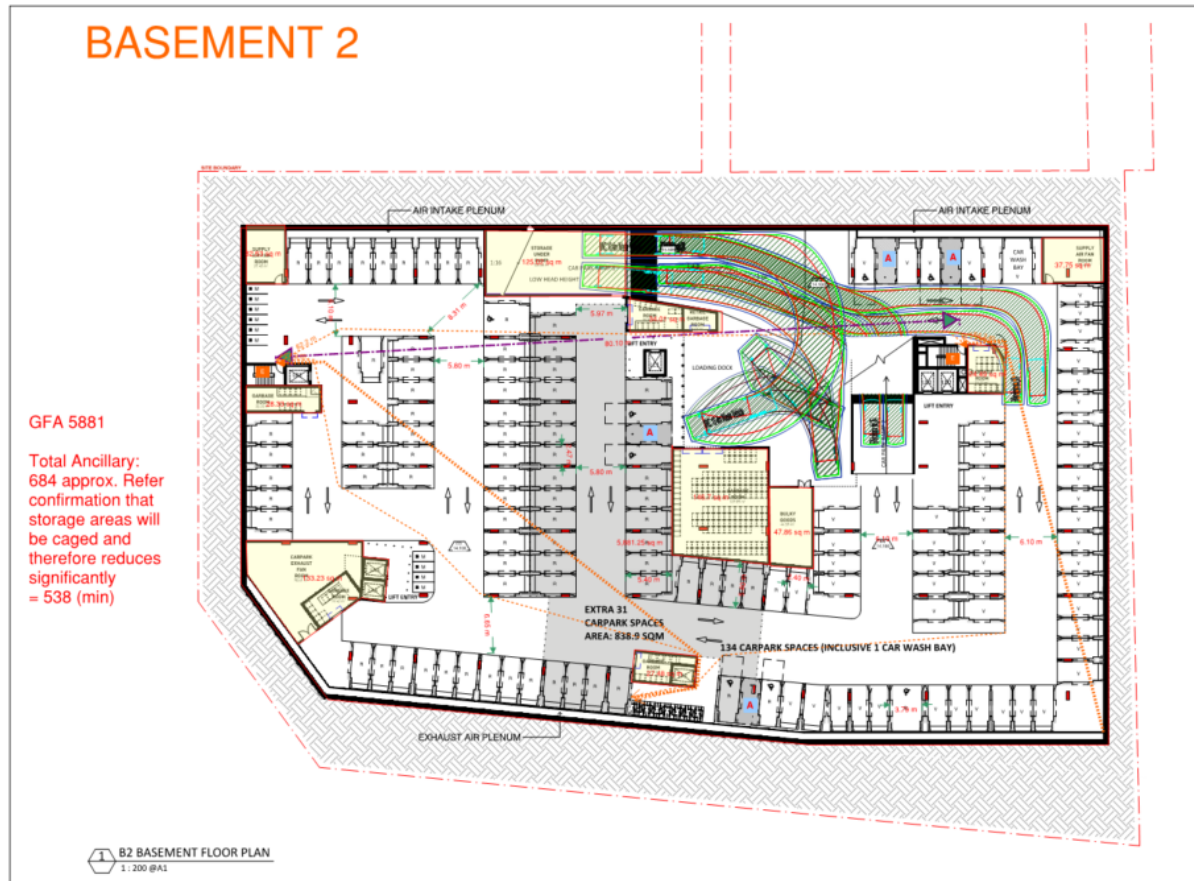
9.0 Appendix 6 – Drawings reviewed for this assessment

Subsequent changes have been captured in Plan set (DA) rev. A dated 13/11/2020 (as amended) and form the basis of the commentary in this report being Rev.6 (Final). Table appended below. The original plans assessed are appended on subsequent pages 58 -67.

Plans as listed and revisioned – PTW Architecture, 88 Phillip Street, SYDNEY:

LIST_Sheets_DA			
Sheet Number	Sheet Name	Current Revision	Sheet Issue Date
DA-000	COVER SHEET & DRAWING LIST	A	11/13/20
DA-001	DEVELOPMENT DATA SHEET	A	11/13/20
DA-002	LOCATION AND SITE PLAN	A	11/13/20
DA-003	SITE ANALYSIS	A	11/13/20
DA-004	DEMOLITION PLAN	A	11/13/20
DA-005	SITE PLAN	A	11/13/20
DA-080	BASEMENT B2 FLOOR PLAN	A	11/13/20
DA-090	BASEMENT B1 FLOOR PLAN	A	11/13/20
DA-100	GROUND FLOOR PLAN	A	11/13/20
DA-101	LEVEL 01 PLAN	A	11/13/20
DA-102	LEVEL 02 PLAN	A	11/13/20
DA-103	LEVEL 03 PLAN	A	11/13/20
DA-104	LEVEL 04 PLAN	A	11/13/20
DA-105	LEVEL 05 PLAN	A	11/13/20
DA-106	LEVEL 06 PLAN	A	11/13/20
DA-107	LEVEL 07 PLAN	A	11/13/20
DA-108	LEVEL 08 PLAN	A	11/13/20
DA-109	LEVEL 09 PLAN	A	11/13/20
DA-110	ROOF PLAN	A	11/13/20
DA-201	EAST ELEVATION	A	11/13/20
DA-202	WEST ELEVATION	A	11/13/20
DA-203	NORTH ELEVATION	A	11/13/20
DA-204	SOUTH ELEVATION (BUILDING A&B)	A	11/13/20
DA-205	SOUTH ELEVATION (BUILDING C&D)	A	11/13/20
DA-300	SECTION 1& 2	A	11/13/20
DA-301	SECTION 3 & 4	A	11/13/20
DA-302	SECTION 5	A	11/13/20
DA-350	DRIVEWAY PROFILE RAMP 1	A	11/13/20
DA-351	DRIVEWAY PROFILE RAMP 2	A	11/13/20
DA-352	DRIVEWAY PROFILE RAMP 3 & 4	A	11/13/20
DA-400	ADAPTABLE APARTMENT TYPE PLAN	A	11/13/20
DA-410	LIVABLE SILVER TYPE PLAN	A	11/13/20
DA-500	PHOTOMONTAGE 01	A	11/13/20
DA-501	PHOTOMONTAGE 02	A	11/13/20
DA-502	PHOTOMONTAGE 03	A	11/13/20
DA-503	PHOTOMONTAGE 04	A	11/13/20
DA-600	GFA DIAGRAMS	A	11/13/20
DA-610	SOLAR ACCESS DIAGRAMS	A	11/13/20
DA-611	CROSS VENTILATION DIAGRAMS	A	11/13/20
DA-612	DEEP SOIL DIAGRAM	A	11/13/20
DA-613	COMMUNAL OPEN SPACE DIAGRAM	A	11/13/20
DA-700	COLOUR MATERIAL SAMPLE BOARD & FACADE ELEVATIONS	A	11/13/20

10.0 Appendix 7 – Marked up plans (Initial assessment)



[illegible]

1 B1 BASEMENT FLOOR PLAN







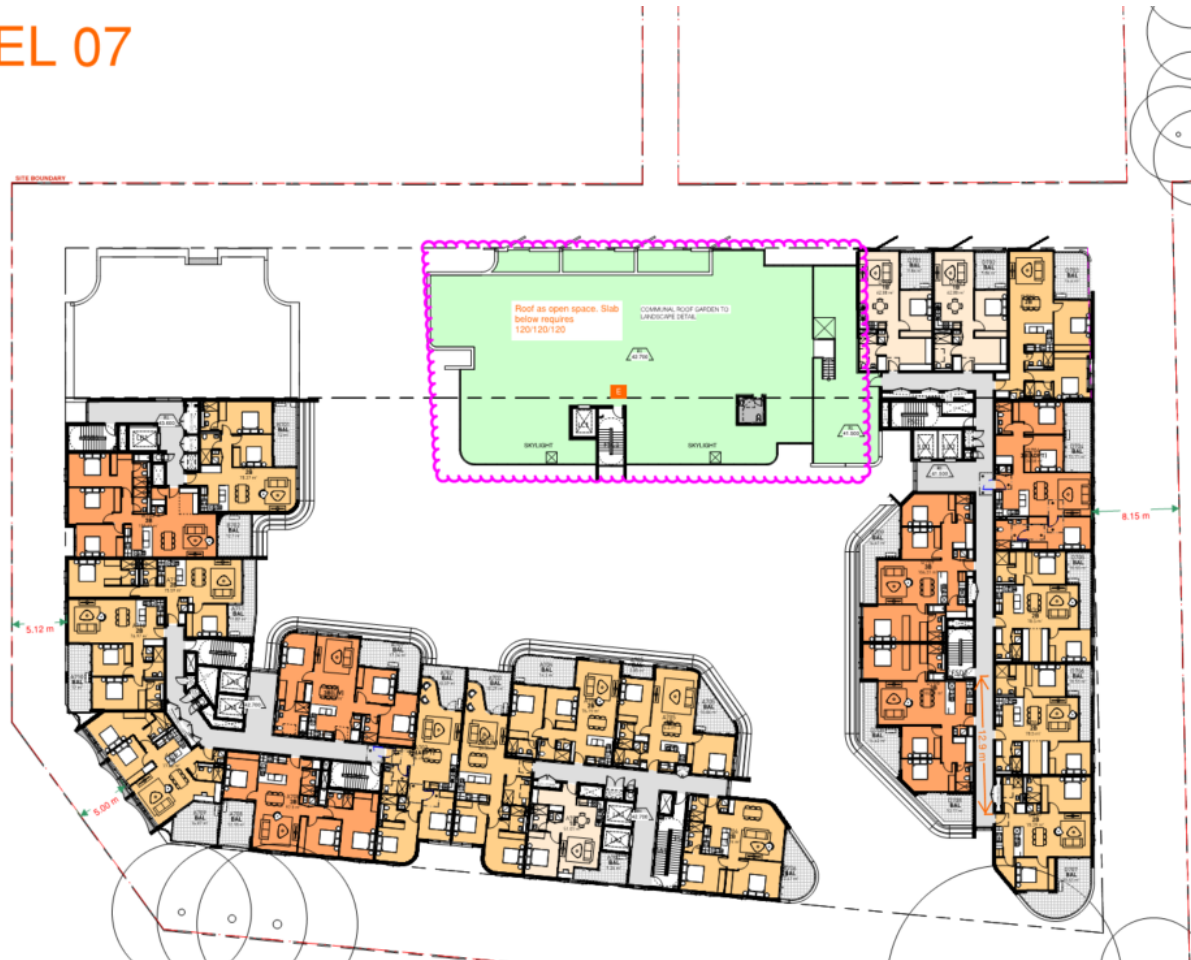
LEVEL 03



LEVEL 06



LEVEL 07



LEVEL 08

