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Project Bondi Surf Bathers Life Saving Club

Report NCC Assessment Report (DA Stage)

Reference C19506-NCC-r2

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Client Lockhart-Krause Architects

Contact Jesse Lockhart-Krause

jesse@lock hart krause.com. au



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Document Control

Reference/Revision	Date		
		Description	NCC Assessment Report
			Beau Zaia
			Senior Building Surveyor
C19506-NCC-r2	19/04/2021	Prepared by	Jean Jain
			James Deters A1 Accredited Certifier BPB0089
		Reviewed by	



1 Introduction

1.1 Building Location

The existing development, the subject of this report, is the Bondi Surf Bathers Life Saving Club which currently comprises of a two-storey masonry building that is occupied by the following:

1. Ground Floor

 Heritage hall, male and female changerooms, sauna, administration rooms, storage, caretakers' room and external works yard

2. First Floor

Function area

The existing building will be conserved and upgraded, provided the following:

1. Basement

- Storage, Plant equipment, Archives

2. Ground Floor

- Reconfiguration of the existing heritage hall to include information, education and community facility;
- New accessible public courtyard and accessible covered seating; and
- New public kiosk, multipurpose auditorium and training room, accessible board room, administration offices.

3. First Floor

Gymnasium and sanitary facilities.

4. Second Floor

- Existing function room, kitchen, bar and sanitary facilities; and
- Link bridge connecting new and existing building parts, food preparation areas and sanitary facilities
- Outdoor terrace areas





1.2 Objectives

The purpose of this report is to provide an assessment against the National Construction Code 2019 (NCC) addressing all relevant clauses therein to identify where the subject building achieves compliance and non-compliance, as well as provide appropriate Performance Solutions where available, which are required to be prepared under separate cover.

It is presumed the assumptions, content, and limitations of this report are reviewed, noted, and understood by the reader. Credwell Consulting are to be contacted to clarify any queries or assumptions made in relation to the contents of this report and further, Credwell Consulting take no responsibility for misinterpretation of any of the content herein.

1.3 Limitations

This report does not include, nor imply, any audit, assessment, or upgrading of:

- 1. The structural design of the building;
- 2. The capacity or design of any electrical, fire, hydraulic or mechanical services; and
- 3. The Disability (Access to Premises Building) Standards 2010 and the Disability Discrimination Act 1992 (Cth)

This report does not include, nor imply, any assessment of, or compliance with:

- 4. The specific provisions of NCC Part D3 and Clause F2.4'
- 5. Any Development Consent conditions;
- 6. The Liquor Licencing Act 1997;
- 7. The Work Health and Safety Act 2011;
- 8. The Swimming Pools Act 1992; and
- 9. Requirements of Authorities including, but not limited to, WorkCover, RMS, Council, Telecommunications Supply Authority, Electricity Supply Authority, Water Supply Authority, Gas Supply Authority and the like.

Interpretations

A number of matters within the NCC are known to be interpretive. Where these matters are encountered, interpretations have been used that are consistent with Credwell Consulting's understanding of standard industry practice.

Dimensions and Tolerances

In some instances, the NCC specifies minimum dimensions for construction. The assessment of plans and specifications includes a review of such minimum dimensions that are relevant to the project, but Credwell Consulting does not guarantee that all relevant minimum dimensions have been assessed where they are not clearly and explicitly denoted/marked on the architectural drawings.

The relevant designer(s) and builder(s) should confirm that all minimum dimensions are achievable on site prior to works and consideration/attention should be given to construction tolerances impacted by wall set outs, applied finishes, and skirtings to corridors and bathrooms. For example, tiling bed thickness on walls and floors can adversely impact critical minimum dimensions relating to access for people with disabilities, stair and corridor widths, and balustrade heights.



1.4 Reviewed Documentation

This report is based on documentation referenced in Annexure A.



2 Building Description

For the purposes of the NCC, the building is described as follows:

2.1 Classification

Class	Use	Area	
Class 7b	Life Saver and Kiosk Storage	Part Basement	
Class 5 Offices		Part Ground Floor	
Class 6	Kiosk	Part Ground Floor	
	Surf Museum & Hall, Youth Room,	Part Basement Ground, First	
Class 9b	Function Rooms, Gymnasium, Multi-	and Second Floor	
Class 30	purpose training, Meeting Rooms and		
	Publicly Accessible Archives		

Note: As the ground floor kiosk has a floor area that is less than 10% of whole ground floor it can therefore adopt the FRL's required for the Class 5 and 9b.

2.2 Rise in Storeys

The building has a rise in storeys of three (3).

2.3 Type of Construction

Given the classification of the top floor and the rise in storeys the building is to be of Type A Construction.

2.4 Effective height

The effective height has been calculated to be 5.4m, being less than 12m

2.5 Fire Compartments

The following fire compartments have been assumed:

1. The whole building is considered to be a single fire compartment.

2.6 Required Exits

The following have been considered as the exits from the building:

- 1. Basement- 2x doors leading to the fire stairway and the heritage stair.
- 2. Ground Floor (surf museum and hall)- 1x set of double doors that opens to the front of the building
- 3. Ground Floor (surf museum and hall)-1x set of double doors that opens to the new courtyard area
- 4. Ground Floor (surf museum and hall)- 2x doors serving the men's and women's changeroom that open to the building frontage
- 5. Ground Floor (youth room)- 1x set of double doors that opens to the new courtyard
- 6. Ground Floor (youth room)- 2x sets of double doors serving the board room and kiosk that open to the new courtyard
- 7. First Floor (Gym)- the doorway leading to the fire isolated stairway
- 8. Second Floor (function room)- the doorway leading to the heritage stair
- 9. Second Floor (multi-purpose training)- the doorway leading to the fire stair

2.7 Climate Zone

The building is located within Climate Zone 5g, being within the Waverley local government area.



3 Fire Safety Measures

Given the assessment in this report, the following fire safety measures are required to be installed in the building. This list is subject to minor change if Performance Solutions are proposed, or other options are taken during the Construction Certificate (CC) and/or construction stages.

	Fire Safety Measure	Standard of Performance
1.	Access panels, doors and hoppers to fire-	NCC2019 Clause C3.13
1.	resisting shaft	Manufacturer's Specifications
2.	Automatic fail-safe devices (automatic	NCC2019 Clause D2.19
۷.	doors)	Manufacturer's Specifications
3.	Automatic fire detection and alarm	NCC2019 Clause E2.2 and Specification E2.2a
J.	systems	Clauses 4 and 7
4.	Building occupant warning system	NCC2019 Clause E2.2 and Specification E2.2a
	Building occupant warning system	Clause 7
5.	Emergency lighting	NCC2019 Clauses E4.2 and E4.8
J.	Emergency lighting	AS2293.1-2018
6.	Exit signs	NCC2019 Clauses E4.5, E4.6 and E4.8
	Exit 318113	AS2293.1-2018
7.	Fire dampers	NCC2019 Clause C3.15
	The dampers	Manufacturer's Specification
8.	Fire doors	NCC2019 Clauses C3.8
		AS1905.1-2015
9.	Fire hose reel systems	NCC2019 Clause E1.4
		AS2441-2005
10.	Fire hydrant systems	NCC2019 Clause E1.3
	- 7	AS2419.1-2005
	Fire seals protecting openings in fire-	NCC2019 Clause C3.15
11.	resisting components of the building	AS1530.4-2014
		Manufacturer's Specification
4.2	Fire shutters (option for providing	NCC2019 Clauses D1.7, C3.4 and Specification
12.	protection of openings)	C3.4 Clause 4
		Manufacturer's Specification
12	Fire windows (option for providing	NCC2019 Clauses D1.7, C3.4 and Specification C3.4 Clause 5
13.	protection of openings)	
		Manufacturer's Specification NCC2019 Clause C1.8 and Specification C1.8
14.	Lightweight construction (fire rated)	Manufacturer's Specification
	Mechanical air handling systems	NCC2019 Clause E2.2 and Specification E2.2a
15.	(automatic shutdown)	AS1668.1-2015
	,	NCC2019 Clause E1.6
16.	Portable fire extinguishers	AS2444-2001
	Wall-wetting sprinkler and drencher	
4-	systems over permanently closed or self-	NCC2019 Clauses D1.7 C3.4
17.	closing glazed elements (option for	AS2118.1-2017
	providing protection of openings)	
		NCC2019 Clauses D2.23 & E3.3
18.	Warning and operational signs	Environmental Planning and Assessment
		Regulation 2000 (EP&A Reg) Clause 183
19.	Paths of travel	NCC2019 Parts D1 and D2
19.	ratiis Of travel	EP&A Reg Clause 186



4 Fire Resistance Levels

The following fire resistance levels (FRLs) are required for the various elements of the building. Where the table below refers to a fire source feature (FSF), this is as defined in the NCC as the far boundary of a road, river, lake or the like adjoining the allotment, or a side or rear boundary of the allotment, or an external wall of another building on the allotment which is not a Class 10 building.

Building Element – Type A Construction	Class 5 or 9b	Class 6	Class 7b
Loadbearing External Walls			
- Less than 1.5m from a FSF	120/120/120	180/180/180	240/240/240
- 1.5 - 3m from a FSF	120/90/90	180/180/120	240/240/180
- 3m or more from a FSF	120/60/30	180/120/90	240/180/90
Non-Loadbearing External Walls			
- Less than 1.5m from a FSF	-/120/120	-/180/180	-/240/240
- 1.5 - 3m from a FSF	-/90/90	-/180/120	-/240/180
- 3m or more from a FSF	-/-/-	-/-/-	-/-/-
External Columns (not incorporated into an			
external wall)			
- Loadbearing	120/-/-	180/-/-	240/-/-
- Non-loadbearing	-/-/-	-/-/-	-/-/-
Common Walls and Fire Walls	120/120/120	180/180/180	240/240/240
Internal Walls - Fire resisting lift and stair			
shafts –			
- Loadbearing	120/120/120	180/120/120	240/120/120
- Non-loadbearing	-/120/120	-/120/120	-/120/120
Internal Walls – Bounding public corridors,			
public lobbies and the like –			
- Loadbearing	120/-/-	180/-/-	240/-/-
- Non-loadbearing	-/-/-	-/-/-	-/-/-
Internal Walls – Between or bounding sole-			
occupancy units –			
- Loadbearing	120/-/-	180/-/-	240/-/-
- Non-loadbearing	-/-/-	-/-/-	-/-/-
Internal Walls – Ventilating, pipe, garbage			
and the like shafts not used for the discharge			
of hot products of combustion –			
- Loadbearing	120/90/90	180/120/120	240/120/120
- Non-loadbearing	-/90/90	-/120/120	-/120/120
Other loadbearing internal walls, internal	120/-/-	180/-/-	240/-/-
beams, trusses and columns	220/ /		2:0//
Floors	120/120/120	180/180/180	240/240/240
Roofs ¹	120/60/30	180/60/30	240/90/60

¹ Roofs are not required to have an FRL (concession available under BCA Specification C1.1 Clause 3.5 as the building does not have a rise in storeys that exceeds 3 and the roof covering is to be non-combustible.



5 Upgrading Works to the Existing Building Deemed Necessary

There are parts of the existing building which are located outside the main scope of development works (ie existing building elements) which will have an effect to the proposed refurbishment works and will need to be addressed via upgrading parts of the building to provide adequate level of fire and life safety.

No consideration of a full building upgrade has been considered at this stage unless Council determines it necessary in accordance with Clauses 93/94 of the Environmental Planning and Assessment Act, 1979 with the proposed Development Consent. In the absence of a full building upgrade requirement, it is considered that the following minimum upgrade requirements should apply to provide a reasonable level of fire and life safety to that currently:-

- 1. It is to be confirmed that the existing floor that separates the heritage hall from the existing function room can achieve an FRL of no less than 120/120/120 as specified with Table 3 of Specification C1.1.
- 2. Service penetrations through fire rated building elements are to be sealed in accordance with a tested system and manufacturer specifications in accordance with this Clause.

Within the existing parts of the building penetrations through fire rated building elements are to be audited by a suitably qualified contractor against the provisions of NCC Clause C3.15.

A schedule of penetrations (including dampers) is to be prepared as a part of this audit.

Where the penetrations do not comply with NCC Clause C3.15 the penetrations are to be upgraded to maintain the FRL relative to the building element penetrated, with the exception that metal pipe penetrations may achieve an integrity FRL only.

- 3. At the ground floor there is an existing external stair that connects to a ramp leading to the entrance of the surf museum. It was found that the going and risers had minor stairway inconsistences. In mitigating these inconsistences, it is recommended that 50-75mm thick non-slip contrasting strips are installed in accordance with NCC Clause D2.13 and AS1428.1-2009
- 4. As the building has a floor area that exceeds 500m2 it must be served by a fire hydrant system. The building is served by an existing fire hydrant system that comprises of external hydrants valves located within close proximity to the external walls of the existing building. A hydraulic engineer or other suitably qualified contractor be engaged to undertake a compliance audit of the system against its current level of performance. The existing hydrant system is to be upgraded in accordance with the recommendations (if any) noted with the hydraulic engineers or contractors report.

It is assumed that an entirely new fire hydrant system will be required to be provided to the site installed in accordance with AS2419.1-2005. What for fire engineers comments regarding fire compartments.



6 NCC Items Triggered by the New Works

6.1 Assessment

The reviewed documentation referenced in Annexure A of this report has been assessed against the Deemed-to-Satisfy (DtS) provisions of the NCC. This assessment has identified the following areas where compliance with the NCC will require further consideration.

Annexure B of this report provides a detailed assessment of the proposal against each of the relevant DtS provisions of the NCC.

6.2 Performance Solutions that will be prepared by Warrington Fire

Warrington Fire have been engaged to prepare a fire engineering report to justify non-compliances that have been raised in earlier NCC assessments with the preparation of Performance Solutions.

According to the Preliminary fire safety engineering review ref: SY190321 dated 29/07/2020 the following Performance Solutions will be prepared.

Item	Possible Performance Solution	DtS Provision
1.	The level 2 terrace areas include a travel distance of 26m to a point of choice instead of 20m.	D1.4
2.	The northern fire-isolated stair discharges at ground floor within the building.	D1.7
3.	The rising and descending flights within northern fire-isolated are directly connected.	D2.4

6.1 Additional Performance Solutions that are to be included in Fire Engineering Report (FER)

Credwell has undertaken an assessment of the most current DA stage architectural plans and considers that the following additional Performance Solution may be included in the FER.

Item	Possible Performance Solution	DtS Provision
1.	At the ground floor to either reduce or eliminate the protection required to windows and door openings that are within 6m of path of travel to open space from the heritage stair.	D1.7

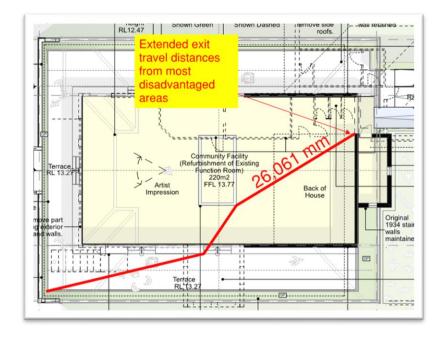
6.1 Exit Travel Distances- Clause D1.4

The following exit travel distance non-compliances have been identified at this stage of the development:

Within the second floor the exit travel distances from the outdoor terraces serving the
existing function room to a point in which travel to two exits becomes available is a
maximum of 26m from the most disadvantaged areas which is non-compliant. This
Clause requires a maximum travel distance of 20m to a point in which two exits
becomes available.

In justifying the above non-compliance Warrington Fire will undertake a Performance Solution at a later stage of the development.





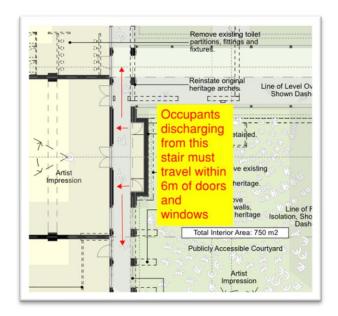
6.2 Travel by Fire Isolated Stairways- Clause D1.7

As noted in Clause D1.3 the 2x stairs that connect all storeys must be considered as fire isolated stairs.

Regarding these stairways the following non-compliances are noted:

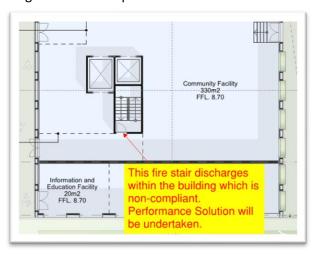
1. The heritage stairway discharges on the ground floor adjacent to the accessible courtyard. At the point of discharge occupants must pass within 6m of the swinging doors and windows serving the heritage hall. Therefore, under the requirements of this Clause the doorways and windows must be protected in accordance with Clause C3.4.

Regarding this item there is a possibility at a later of the development that a Performance Solution be undertaken to either reduce or eliminate the protection required the exposed openings.





On the northern side of the development there is a fire isolated stairway that
discharges within the community facility which is non-compliant.
In justifying the above non-compliance Warrington Fire will undertake a Performance
Solution at a later stage of the development.



Annexure A – Reviewed Documentation

This report has been based on the documentation listed below:

Architectural Details prepared by Lockhart-Krause Architects				
Drawing Number	Revision	Title		
04	Α	Site Plan, Existing		
05	Α	Site Plan, Proposed		
06	Α	Ground Floor, Proposed		
07	Α	First Plan, Proposed		
08	Α	Second Plan, Proposed		
09	Α	Roof and Basement Plan		



Annexure B – Detailed Assessment

Outlined below is a detailed assessment of the proposal against the DtS provisions of the NCC.

All relevant DtS Clauses applicable to the proposal have been reference, Clauses not are not relevant have been deleted.

The following abbreviations have been used in the tables below:

PS - A Performance Solution is proposed to achieve compliance with this Clause.

CRA - "Compliance Readily Achievable" – it is considered that whilst there is insufficient information currently provided to determine strict compliance with the DtS provisions of the NCC the proposed design is capable of comply

subject to noting the requirements of the Clause.

Additional information or documentation is necessary to confirm

compliance. This may be in the form of additional drawing, a specification or

design certification.

Complies - The proposal shows compliance with the DtS Clause.

DNC - The design does not comply with the DtS Clause.

FI - Further information is required for assessment of the proposal relative to

the DtS Clause.

N/A - The DtS Clause is not applicable at this stage to this design.

Noted - The DtS Clause provides information not requiring specific assessment of the

proposed design.



SECTION	N B - STRUCTURE		
Clause		Comments	Assessment
Part B	1 – Structural Provision	S	
B1.0	DtS Provisions	Information only.	Noted
B1.1	Resistance to actions	Resistance to actions must be in accordance with this Clause. Structural Engineer to certify.	CRA
B1.2	Determination of individual actions	The magnitude of individual actions must be determined in accordance with this Clause.	CRA
B1.4	Determination of structural resistance of materials and forms of construction	The structural resistance of materials and forms of construction must be determined in accordance with this Clause. Structural Engineer to certify.	CRA
B1.5	Structural software	Structural software used in computer aided design of a building or structure must comply with the ABCB Protocol for Structural Software in accordance with this Clause. Structural Engineer to certify.	CRA
B1.6	Construction in buildings in flood hazard areas	A Class 2 or 3 building, Class 9a health-care building, Class 9c building or Class 4 part of a building in a flood hazard area must comply with this Clause.	N/A

SECTIO	N C – FIRE RESISTANCE		
Clause	2	Comments	Assessment
Part C1 – Fire Resistance and Stability			
C1.0	DtS Provisions	Information only.	Noted
		Due to the rise in storeys and the top floor being Class 9b.	
C1.1	Type of construction required	The building is required to be of Type A Construction.	Noted
	·	See Clause 3 of Specification C1.1 for discussion regarding existing fire rated building elements.	
		The building has a rise in storeys of three (3)	
C1.2	Calculation of rise in storeys	The rise in storey is the sum of storeys at any part of the external wall of the building and any storey within the roof space.	Noted
		The building is required to be of Type A Construction.	
C1.3	Buildings of multiple classifications	The building contains Class 5,6,9b and 7b parts. As the top floor is Class 9b then the building is required to be of Type A construction. Note: As the ground floor kiosk has a floor area that is less than 10% of whole ground floor it can therefore adopt the FRL's required for the Class 5 and 9b.	Noted
C1.4	Mixed types of construction	The building is a single type of construction. Type A construction is considered	Noted
C1.5	Two storey Class 2, 3 and 9c buildings	-	N/A
C1.6	Class 4 parts of buildings	No Class 4 parts	N/A
C1.7	Open spectator stands and indoor sports stadiums	-	N/A
C1.8	Lightweight construction	Lightweight construction used to achieve an FRL is to comply with this clause and as necessary Specification C1.8.	CRA
C1.9	Non-combustible building elements	Buildings of Type A and B Construction building elements are required to be non-combustible as listed within this Clause.	CRA



Clause Comments Assessment This Clause also provides a list of materials permitted to be used wherever non-combustible materials are required. It is noted that a number of building elements are required to be of non-combustible construction, including the external walls. It should be noted that where a building element is required to be noncombustible all materials forming that element are to be noncombustible. It should be noted that if a permanent polymer/PVC formwork for walls, such as Dincel, Rediwall, etc, is used where the NCC requires such an element to be non-combustible this material will need to be the subject of a Performance Solution at the Construction Certificate Stage of the development. Fire hazard properties of all materials to comply with this Clause and Fire hazard properties C1.10 CRA Specification C1.10. Performance of C1.11 N/A external walls in fire Fire-protected timber: C1.13 N/A Concession Ancillary elements other than those listed in this Clause are not to be C1.14 **Ancillary elements** fixed, installed or attached to internal parts or external face of an CRA external wall that is required to be non-combustible. Part C2 - Compartmentation and Separation C2.0 **DtS Provisions** Information only. Noted Application of Part C2.1 Information only. Noted The building has a floor area and volume that are well within the limitations specified by this Clause. General floor area and Class Maximum Floor Area 8000m2 C2.2 Noted volume limitations Maximum Volume 5,9b,7b 48000m3 Class 6 Maximum Floor Area 5000m2 Maximum Volume 30000m3 C2.3 Large isolated building Not a large isolated building N/A Requirements for C2.4 open spaces and N/A vehicular access Class 9a and 9c C2.5 N/A buildings As the building is of Type A construction and non-sprinkler protected the provisions of this Clause apply. Due to the horizontal projection provided by the second floor terrace Vertical separation of at this stage of the development compliant separation of openings in C2.6 openings in external external walls could be achieved. CRA walls It is to be ensured that the horizontal spandrel projection is of noncombustible construction and achieves an FRL of 60/60/60. This item is to be reassessed at a later stage of development. No firewalls required throughout the building. Separation by fire C2.7 N/A See Clause C2.8 below for separation of classifications in the same walls storey discussion. On the ground floor there is a small kiosk which is a Class 6 part. As Separation of this kiosk is less than 10% of the total floor area of the ground floor it C2.8 classifications in the can therefore be considered as part of the Class 9b part being the CRA same storey offices, museum and hall etc.



Clause Comments Assessment This is beneficial as a single fire rating of 120min can be allocated all loadbearing elements throughout the ground floor with no fire walls being required. As the building is of Type A construction, the floor between the adjoining parts must have an FRL of not less than that prescribed in Separation of Specification C1.1 for the classification of the lower storey. C2.9 classifications in CRA different storeys It is to be confirmed that the existing floor that separates the heritage hall from the existing function room can achieve an FRL of no less than 120/120/120 as specified with Table 3 of Specification C1.1. Separation of lift As the building is of Type A construction the lift shaft is required to C2.10 CRA shafts have an FRL of -/120/120 Stairways and lifts in C2.11 No stairways and lift in the same shaft N/A one shaft Equipment including lift motor rooms, emergency generators sustaining emergency equipment operating in emergency mode, Separation of central smoke control plan, boilers or battery areas with a voltage C2.12 CRA equipment exceeding 24 volts and a capacity exceeding 10 ampere hours are to be fire separated from the remainder of the building in accordance with this Clause. If the main switch room sustains emergency equipment operating in emergency mode, the room is to be separated from the remainder of the building with construction having a FRL of not less than 120/120/120. **Electricity supply** Where emergency equipment is required in a building, all C2.13 CRA system switchboards in the electrical installation, which sustain the electricity supply to the emergency equipment, must be constructed so that emergency equipment switchgear is separated from non-emergency equipment switchgear by metal partitions designed to minimise the spread of a fault from the non-emergency equipment switchgear. Public corridors in a C2.14 No Class 2 or 3 parts N/A Class 2 and 3 buildings Part C3 - Protection of Openings C3.0 **DtS Provisions** Information only. Noted C3.1 **Application of Part** Information only. Noted Protection of No existing or proposed openings in the external walls of the building C3.2 openings in external N/A that require protection under this Clause. walls Separation of external walls and associated As the building is a single fire compartment the provisions of this C3.3 N/A openings in different Clause do not apply fire compartments Acceptable methods C3.4 See Clauses D1.7 and C3.8 Noted of protection C3.5 Doorways in fire walls No firewalls N/A No sliding fire doors specified under this Clause are proposed. See C3.6 Clause D1.7 regarding automatic sliding doors within ground floor Sliding fire doors N/A "Youth Room" Protection of C3.7 No horizontal exits. doorways in N/A horizontal exits Openings in fire-The doorways to the fire-isolated exits are to be self-closing -/60/30 C3.8 CRA isolated exits fire door sets installed in accordance with AS1905.1 Fire-isolated exits may not be penetrated by any service other than Service penetrations C3.9 electrical wiring for lighting and intercom systems, water supply for CRA in fire-isolated exits fire services and other fire related services. Lift doors are to achieve an FRL of not less than -/60/- and be in Openings in fire-C3.10 accordance with this Clause. Lift indicator panes are also to comply CRA isolated lift shafts with this Clause.



Clause		Comments	Assessment
C3.11	Bounding construction: Class 2 and 3 buildings and Class 4 parts	No Class 2,3 or 4 parts	N/A
C3.12	Openings in floors and ceilings for services	All service shafts are to have FRLs as set by Table 3 of NCC Specification C1.1.	CRA
C3.13	Openings in shafts	Access openings in fire rated service shafts are to be through an access panel, or self-closing fire door, having an FRL of not less than - /60/30.	CRA
C3.15	Openings for service installations	Service penetrations through fire rated building elements are to be sealed in accordance with a tested system and manufacturer specifications in accordance with this Clause. Within the existing parts of the building penetrations through fire rated building elements are to be audited by a suitably qualified contractor against the provisions of NCC Clause C3.15. A schedule of penetrations (including dampers) is to be prepared as a part of this audit. Where the penetrations do not comply with NCC Clause C3.15 the penetrations are to be upgraded to maintain the FRL relative to the building element penetrated, with the exception that metal pipe penetrations may achieve an integrity FRL only.	CRA Refer to Part 5 of Report
C3.16	Construction joints	Construction joints in fire rated building elements are to be appropriately treated to maintain the integrity and insulation of the element in which they are located.	CRA
C3.17	Columns protected with lightweight construction to achieve an FRL	Any columns protected with lightweight fire rated materials to achieve a required FRL are to comply with this Clause.	CRA
Specifica	ation C1.1 – Fire Resis	ting Construction	
1	Scope	This Specification contains the requirements for fire resisting construction of building elements.	Noted
2	General Requirements	-	-
2.1	Exposure to FSF	The building is exposed to FSF to the south from a neighbouring property being the Bondi Surf Pavilion	CRA
2.2	Fire protection for support of another part	Where a part of a building required to have a FRL depends on direct vertical or lateral support from another part to maintain its FRL. That supporting part must have a FRL not less than that required by other provisions as set out in this Clause.	CRA
2.3	Lintels	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 it otherwise complies with this Clause.	CRA
2.4	Method of attachment reduce the fire-resistance of building element	The fire-resistance of a building element is not to be impacted by the method of attaching or installing a finish, lining, ancillary element or a service installation in accordance with this Clause	CRA
2.5	General concessions	At this stage no concessions available. To be further assessed at a later stage of development.	CRA
2.6	Mezzanine floors: Concession	No mezzanines within this building. The gymnasium is considered to be a storey, that is counted in the rise in storeys	CRA
2.7	Enclosure of Shafts	Any shafts within the building are required to comply with this specification	CRA
2.8	Carparks in Class 2 and 3 buildings	No carparks as part of the proposal	CRA
2.9	Residential aged care building: Concession	-	N/A
3	Type A Construction	-	-



Clause Comments Assessment The building elements are to have FRLs as determined by this Clause. See Part 4 of the Report. The existing building elements that will remain as part of the development include the following: The ground floor heritage hall; and The second-floor existing function room Fire-resistance of 3.1 CRA The inspection revealed that the existing external walls and building elements loadbearing columns serving these areas were of masonry construction that are considered to achieve the required FRLs as specified in Table 3 of Specification C1.1. As noted in Clause C2.9 It is to be confirmed that the existing floor that separates the heritage hall from the existing function room can achieve an FRL of no less than 120/120/120 as specified with Table 3 of Specification C1.1. Concessions for floors No floor concessions applicable to this building N/A 3.2 Floor loading of Class If a floor of a Class 5 or 9b building is designed for a live load not 3.3 5 and 9b buildings: CRA exceeding 3kPa then reductions in FRLs are available. Concession Roof superimposed on A roof superimposed on a concrete slab need not have an FRL of it 3.4 CRA concrete slab: complies with this Clause. Concession A roof need not have an FRL if its covering is non-combustible and the 3.5 **Roof: Concession** CRA building meets the requirements of this Clause. 3.6 Rooflights At this stage no rooflights proposed. N/A As this building does not have a rise in storeys that exceeds 3 the Internal columns and 3.7 provisions of this concessions may apply. To be assessed at a later CRA walls: Concession stage of development. Open spectator stands 3.8 and indoor sports N/A stadiums: Concession 3.9 No carparks Carparks N/A Class 2 and 3 N/A buildings: Concession Specification C1.8 - Structural Tests for Lightweight Construction This Specification describes test methods to be applied to and criteria 1 Noted Scope to be satisfied by a wall system of light weight construction. 2 Application Information only. Noted Tests to walls and lift shafts to comply with this Clause. 3 **Tests** CRA 4 **Test Specimens** Testing to comply with this Clause. CRA 5 Test methods Tests to be carried out in accordance with this Clause. CRA Criteria for 6 The wall system or the specimen of it must comply with this Clause. CRA compliance **Specification C1.10 – Fire Hazard Properties** This Specification sets out requirements in relation to the fire hazard 1 Scope Noted properties of linings, materials and assemblies in buildings. Linings, materials and assemblies must comply with the appropriate 2 Application Noted provisions described in Table 1 of this Clause. Floor linings and floor Fire hazard properties of the floor linings and floor coverings are to 3 CRA comply with this Clause. coverings Fire hazard properties of the wall and ceiling linings are to comply Wall and ceiling 4 CRA linings with this Clause. Fire hazard properties of the air-handling ductwork are to comply with 5 Air-handling ductwork CRA this Clause. 6 Lift cars Fire hazard properties of the lift cars are to comply with this Clause. CRA Fire hazard properties of other materials not covered in Clauses 3, 4, 5 7 Other materials CRA or 6 above are to comply with this Clause.



Ref: C19506-NCC-r2

Claus	e	Comments	Assessment
Speci	fication C3.4 – Fire Door	s, Smoke Doors, Fire Windows and Shutters	
1	Scope	This Specification sets out requirements for the construction of fire doors, smoke doors, fire windows and fire shutters.	Noted
2	Fire doors	Fire doors are to comply with AS1905.1-2005 and this Clause.	CRA
3	Smoke doors	-	N/A
4	Fire shutters	Fire shutters are to comply with this Clause and the manufacturer's specifications.	CRA
5	Fire windows	Fire windows are to comply with this Clause and the manufacturer's specifications.	CRA

SECTIO	SECTION D – ACCESS AND EGRESS			
Clause		Comments	Assessment	
Part D	1 – Provisions for Escap	oe		
D1.0	DtS Provisions	Information only.	Noted	
D1.1	Application of Part	Information only.	Noted	
D1.2	Number of exits required	Under the requirements of this Clause the building has been provided with a sufficient amount of exits. See Clause D1.4 for exit travel distance discussion.	Complies	
D1.3	When fire-isolated stairways and ramps are required	Within the building there are two internal stairways which are as follows: 1. Heritage stair- that connects the basement, ground floor hall/museum and the second-floor existing function room. 2. Fire Stair- Connects the basement, ground floor youth room, first floor gym and second floor meeting rooms Due to the amount storeys that both these stairs connect these stairs must be considered as fire-isolated stairways.	Noted	
D1.4	Exit travel distances	The following exit travel distance non-compliances have been identified: 1. Within the second floor the exit travel distances from the outdoor terraces serving the existing function room to a point in which travel to two exits becomes available is a maximum of 26m from the most disadvantaged areas which is non-compliant. This Clause requires a maximum travel distance of 20m to a point in which two exits becomes available. In justifying the above non-compliance Warrington Fire will undertake a Performance Solution at a later stage of the development.	PS/DNC Refer to Part 6	
D1.5	Distance between alternative exits	There are alternative required exits on the ground and second floors. These exits are in locations that meet the requirements of this Clause.	CRA	
D1.6	Dimensions of exits and paths of travel to exits	 the unobstructed height throughout exits and paths of travel to exits must not be less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm; the unobstructed width of each exit or path of travel to an exit, except for doorways must be not less than 1m clear of all obstructions such as PFE; the unobstructed width of doorways must be not less than 750 mm, unless providing access for people with disabilities in which case the unobstructed width must be not less than 850 mm; and 	CRA	



Clause Comments Assessment the required width of a stairway or ramp must be measured clear of all obstructions such as handrails and Hydrants. the unobstructed width of a required exit must not diminish in the direction of travel to a road or open space. As noted in Clause D1.3 the 2x stairs that connect all storeys must be considered as fire isolated stairs. Regarding these stairways the following non-compliances are noted: 1. The heritage stairway discharges on the ground floor adjacent to the accessible courtyard. At the point of discharge occupants must pass within 6m of the swinging doors and windows serving the heritage hall. Therefore, under the requirements of this Clause the doorways and windows must be protected in accordance with Clause C3.4. Travel via fire-isolated **PS/DNC** Refer D1.7 Regarding this item there is a possibility at a later of the to Part 6 exits development that a Performance Solution be undertaken to either reduce or eliminate the protection required the exposed openings. 2. On the northern side of the development there is a fire isolated stairway that discharges within the community facility which is non-compliant. In justifying the above non-compliance Warrington Fire will undertake a Performance Solution at a later stage of the development. External stairways or D1.8 ramps in lieu of fire-No external ramps of stairways in lieu of fire isolated exits N/A isolated exits Travel by non-fire-D1.9 isolated stairways or No non-fire isolated stairs throughout the building. ramps D1.10 Discharge from exits Required exits are in locations that will not be blocked by vehicles Complies Horizontal exits D1.11 No horizontal exits N/A Non-required D1.12 stairways, ramps or No non-required stairways etc. N/A escalators Based off floors areas the building will accommodate the following populations: Note: the below populations are subject to change by the egress provisions of Clause D1.6 and sanitary facility counts of Clause F2.3 **Ground Floor** Surf Museum and Heritage Hall (200m2)= 200 persons Men/Womens Changerooms (120m2)= 50 persons each Number of persons D1.13 Youth Room (200m2)= 200 persons Noted accommodated Kiosk, Caretaker, Operations (70m2)= 20 persons Boardroom, Office (70m2)= 10 persons First Floor Gymnasium (100m2)= 34 Second Floor Existing function Room, New multi purpose room and terraces (400m2)= 400 persons



Clause Comments Assessment Measurement of D1.14 Information only. Noted distances Method of D1.15 Information only. Noted measurement Plant rooms, lift machine rooms. D1.16 electricity network Information only. Noted substations: Concession D1.17 Access to lift pits The single passenger lift is required to comply with this Clause CRA Part D2 - Construction of Exits D2.0 **DtS Provisions** Information only. Noted D2.1 **Application of Part** Information only. Noted Fire-isolated stairways The fire-isolated stairways are to be constructed in accordance with D2.2 CRA this Clause. and ramps Non-fire-isolated D2.3 No non-fire isolated stairways N/A stairways and ramps Separation of rising The two fire isolated stairs have rising flights from the basement level. D2.4 and descending stair Therefore, it is to be ensured that the rising and descending flights are CRA flights separated in accordance with this Clause. Open access ramps D2.5 N/A and balconies D2.6 Smoke lobbies N/A Installations in exits and paths of travel are to be in accordance with this Clause. Installations in exits D2.7 CRA and paths of travel The electrical meter cupboards are to be enclosed by non-combustible construction or a fire-protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure. Enclosure of space At this stage there are no enclosures under stairs. This is to be D2.8 under stairs and CRA reassessed at a later stage of development. ramps Width of required D2.9 No stairways greater than 2m in width N/A stairways and ramps Pedestrian ramps are located on the ground floor and second floor. D2.10 Pedestrian ramps These ramps have been addressed in Credwells separate Access report Noted C19506-Access-r1 Fire-isolated D2.11 N/A No fire isolated passageways passageways D2.12 Roof as open space No roof as open space N/A Existing At the ground floor of the there is an existing external stair that connects to a ramp leading to the entrance of the surf museum. It was found that the going and risers had minor stairway inconsistences. In mitigating theses inconsistences it is recommended that 50-75mm thick non-slip contrasting strips are installed. **Proposed Refer to Part** D2.13 Goings and risers Stairways must comply with the following: 5 of Report stairways must have not more than 18 and not less than 2 risers in each flight; goings must be between 250 mm and 355 mm; goings must be between 250 mm and 355 mm in other areas; risers must be between 115 mm high and 190 mm high;



Clause		Comments	Assessment
		• the slope relationship (2 x riser dimension + going dimension)	
		must be within the range of 550-700;	
		 the goings and risers must be constant (uniform) throughout each flight and the dimensions of goings (G) and risers (R) are considered constant if the variation between— 	
		(A) adjacent risers, or between adjacent goings, is no greater than 5 mm; and	
		(B) the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm.	
		Risers must not contain any openings that would permit a 125 mm sphere to pass through.	
		 each tread must have a non-slip finish or an adequate non-skid strip near the edge of the nosings; 	
		 treads must be of solid construction (not mesh or perforated) if the stairway is more than 10 m high or connects more than 3 storeys. 	
		Treads must have a surface or nosing strip with a slip-resistant classification not less than that listed in Table D2.14 when tested in accordance with AS 4586-2013 Slip resistance classification of new nadactrian surface materials	
D2.14	Landings	pedestrian surface materials. Landings must be not less than 750 mm long and have either a surface with a slip-resistance classification complying with Table D2.14 or a strip at the edge of the landing with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586	CRA
		The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless—	
		a) in a building required to be accessible, the doorway–	
		(i) opens to a road or open space; and	
D2.15	Thresholds	(ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or	CRA
		b) in other cases—	
		(i) the doorway opens to a road or open space, external stair landing or external balcony; and	
		the door sill is not more than 190 mm above the finished surface of	
		the ground, balcony, or the like, to which the doorway opens. Barriers (balustrades) are to comply with this Clause.	
D2.16	Barriers to prevent falls	Please ensure the gap on the top barrier and the handrail is minimized	CRA
- c :		or removed in future drawing	
D2.17	Handrails	Handrails are to comply with this Clause.	CRA
D2.18	Fixed platforms, walkways, stairways and ladders	Where used must comply with AS1657, not proposed at this time.	Noted
D2.19	Doorways and doors	As required all required exit doorways are swinging doors	Complies
D2.20	Swinging doors	All required exit doors swing in the direction of travel as required by	CRA
52.20	5441161116 GOOL3	this Clause	CILA



Clause		Comments	Assessment
D2.21	Operation of latch	All doors in a required exit or forming part of a required exit AND doors in a path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by— (i) a single hand downward action or pushing action on a single device which is located between 900mm and 1.1 m from the floor and if serving an area required to be accessible by Part D3 — A. be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and B. have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35mm and not more than 45mm; or (ii) a single hand pushing action on a single device which is located between 900mm and 1.2m from the floor. The above requirements do not apply to a door that — (i) serves only or is within a sole-occupancy unit in a Class 2 building; or (ii) serves a sole-occupancy unit in a Class 5, 6 or 7 building with a floor area not more than 200m²; or are fitted with a fail-safe device which automatically unlocks the door upon the activation of an AS 1670.1 detection system installed throughout the building.	CRA
D2.22	Re-entry from fire- isolated exits	-	N/A
D2.23	Signs on doors	Signage is to be located on all fire and smoke doors in accordance with this Clause. For self-closing doors the sign is to stay "FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN" and for the door discharging from a fire-isolated exit "FIRE SAFETY DOOR – DO NOT OBSTRUCT". The text is to be a minimum of 20mm in height and a colour contrasting to the background of the sign.	CRA
D2.24	Protection of openable windows	Windows to the bedrooms of the Class 2 and 3 parts are to be provided with window locks in accordance with this Clause.	CRA
D2.25	Timber stairway: Concession	-	N/A
Part D3 – Access for People with a Disability			
No access assessment undertaken. See separate Access Report C19506-Access0r1			

SECTION E – SERVICES AND EQUIPMENT			
Clause		Comments	Assessment
Part E1	L – Fire Fighting Equipn	nent	
E1.0	DtS Provisions	Information only.	Noted
E1.3	Fire hydrants	As the building has a floor area that exceeds 500m2 it must be served by a fire hydrant system. The building is served by an existing fire hydrant system that comprises of external hydrants valves located within close proximity to the external walls of the existing building.	DNC Refer to Part 5 of Report
		A hydraulic engineer or other suitably qualified contractor be engaged to undertake a compliance audit of the system against its current level of performance.	



Clause Comments Assessment The existing hydrant system is to be upgraded in accordance with the recommendations (if any) noted with the hydraulic engineers or contractors report. It is assumed that an entirely new fire hydrant system will be required to be provided to the site installed in accordance with AS2419.1-2005 Wait for fire engineers comments regarding fire compartments The building is required to be served by fire hose reels. The hose reels are to be installed in accordance with AS2441. E1.4 CRA Fire hose reels To reassessed at a later stage of development. E1.5 Sprinklers Sprinklers are not required to serve the building. The building is to be provided with portable fire extinguishers. Portable fire E1.6 CRA Within the residential areas a 2.5kg ABE powder extinguisher is to be extinguishers located within 10m of all unit entry doors. E1.8 Fire control centres N/A Fire precautions E1.9 N/A during construction Provisions for special E1.10 N/A hazards Part E2 - Smoke Hazard Management Information only. E2.0 **DtS Provisions** Noted E2.1 **Application of Part** Information only. Noted As the building has a rise in storeys of three and contains Class 5 and 9b parts this Clause requires that the building be provided with an automatic smoke detection and alarm system compliant with Specification E2.2a. Furthermore, as the development contains Class 9b parts then the E2.2 General requirements CRA building must be provided with automatic shutdown of any airhandling system (other than non-ducted individual room units with a capacity not more than 1000 L/s and misc exhaust air systems installed in accordance with Sections 5 and 6 of AS/NZS 1668.1) which does not form part of the smoke hazard management system in the activation of the smoke detection and alarm system. Provision for special E2.3 N/A hazards Specification E2.2a – Smoke Detection and Alarm Systems This Specification describes the installation and operation of 1 Scope Noted automatic smoke detection and alarm systems. Smoke detection system compliant with Clause 4 2 Type of System CRA 3 Smoke alarm system N/A Smoke detection Clause 4 smoke detection system compliant with AS1670.1 to activate 4 CRA system a Clause 7 BOWS. Combined smoke 5 alarm and smoke N/A detection system Smoke detection for 6 N/A smoke control system **Building occupant** 7 A Clause 7 BOWS is required as part of this system. CRA warning system System monitoring Not required. N/A Part E3 - Lift Installations E3.0 **DtS Provisions** Information only. Noted An electric passenger lift installation and an electrohydraulic E3.1 Lift installations CRA passenger lift installation must comply with Specification E3.1.



Clause Comments Assessment Stretcher facility in E3.2 Stretcher facilities are not required N/A lifts Warning against use Warning signage stating DO NOT USE LIFTS IF THERE IS A FIRE is to be E3.3 CRA of lifts in fire provided in accordance with this Clause. E3.4 **Emergency lifts** N/A Access and egress to and from a liftwell landing must comply with E3.5 Landings CRA Section D. E3.6 Passenger lifts To comply with this Clause CRA Fire service controls E3.7 N/A Residential care E3.8 N/A buildings Fire service recall E3.9 N/A control switch Lift car fire service E3.10 N/A drive control switch Specification E3.1 - Lift Installations This Specification contains requirements for electric passenger lift Scope Noted 1 installations and electrohydraulic passenger lift installations Lift cars exposed to A lift car exposed to solar radiation directly, or indirectly through re-2 CRA solar radiation radiation must comply with this Clause. Lift car emergency 3 CRA A lift car must have emergency lighting complying with this Clause. lighting While in service a lift shaft must have cooling in accordance with this 4 Cooling of lift shaft CRA Where there is a security foyer in a building access may be via locked 5 Lift fover access CRA security doors provided measures as set out in this Clause are in place. **Emergency access** Emergency access doors in a single enclosed lift shaft are to be in 6 doors in a single CRA accordance with this Clause. enclosed lift shaft Part E4 - Emergency Lighting, Exit Signs and Warning Systems E4.0 **DtS Provisions** Information only. Noted An emergency lighting system must be installed throughout the **Emergency lighting** E4.2 building in accordance with Clause E4.2 of the BCA and AS 2293.1-CRA requirements 2018. Measurement of E4.3 Information only. Noted distance Design and operation E4.4 CRA The emergency lighting system is to comply with AS2293.1-2018. of emergency lighting Exits signs are to be provided above or adjacent to a door providing E4.5 Exit signs egress as well as directional signage throughout the entire CRA development where necessary in accordance with AS2293.1-2018 E4.6 Direction signs CRA See Clause above Class 2 and 3 buildings E4.7 and Class 4 parts: N/A Exemptions Design and operation E4.8 The exit lighting system is to comply with AS2293.1-2018 CRA of exit signs **Emergency warning** E4.9 N/A and intercom systems Specification E4.8 - Photoluminescent Exit Signs This Specification contains the requirements for photoluminescent 1 Scope Noted exit signs A photoluminescent exit sign must comply with Section 6 and 2 **Application** Noted Appendix D of AS2293.1-2018, except as varied by this Specification. 3 Illumination If photoluminescent is proposed it is to comply with this Clause. CRA Pictorial elements If photoluminescent is proposed it is to comply with this Clause. 4 CRA 5 Viewing distance If photoluminescent is proposed it is to comply with this Clause. CRA Smoke control 6 If photoluminescent is proposed it is to comply with this Clause. CRA systems



SECTION	F – HEALTH AND AME	NITY	
Clause		Comments	Assessment
Part F1	– Damp and Weather	proofing	
F1.0	DtS Provisions	Information only.	Noted
F1.1	Stormwater drainage	Stormwater drainage is to comply with AS/NZS3500.3-2015.	CRA
F1.4	External above ground membranes	Waterproofing membranes for external above ground use, such as balconies and roofs, must comply with AS4654.1-2012 and AS4654.2-2012.	CRA
F1.5	Roof coverings	A roof must be covered with materials set out in this Clause in accordance with the relevant standard also set out in this Clause.	CRA
F1.6	Sarking	Sarking type materials used for weatherproofing of roofs and walls must comply with AS4200.1-1994 and AS4200.2-1994.	CRA
F1.7	Waterproofing of wet areas in buildings	Waterproofing of wet areas in buildings must comply with this Clause, and AS3740-2010.	CRA
F1.9	Damp-proofing	Damp-proofing is to be provided in accordance with this Clause. Where a damp-proof course is provided the material must comply with AS/NZS2904-1995 or impervious termite shields in accordance with AS3660.1-2014.	CRA
F1.10	Damp-proofing of floors on the ground	Damp-proofing of floors on the ground is to be in accordance with this Clause. Where required the vapour barrier is to comply with AS2870-2011.	CRA
F1.11	Provision of floor wastes	-	N/A
F1.12	Sub-floor ventilation	Where provided sub-floor ventilation is to be in accordance with this Clause.	CRA
F1.13	Glazed assemblies	Glazed assemblies in external walls or roofs are to comply with AS2047-2014 or AS1288-2006 as required by this Clause and NCC Clause B1.4.	CRA
Part F2	- Sanitary and Other I	Facilities Facilities	
F2.0	DtS Provisions	Information only.	Noted
F2.1	Facilities in residential buildings	-	N/A
F2.2	Calculation of number of occupants and facilities	Informational – a) The number of persons accommodated must be calculated according to D1.13 if it cannot be more accurately determined by other means b) Unless the premises are used predominantly by one sex, sanitary facilities must be provided on the basis of equal numbers of males and females c) In calculating the number of sanitary facilities to be provided under F2.1 and F2.3, a unisex facility required for people with a disability may be counted once for each sex For the purpose of this Part, a unisex facility comprises one closet pan,	CRA
F2.3	Facilities in Class 3 to 9 buildings	one washbasin and means for the disposal of sanitary towels The proposed sanitary facilities will accommodate the following populations. At this stage sanitary facilities have not been confirmed within the building. Once sanitary facilities have been provided on updated plans a specific sanitary facility assessment count will be undertaken.	Noted
F2.4	Accessible sanitary facilities	See separate Credwell report C19506-Access-r1	Noted
F2.5	Construction of sanitary compartments	Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend—	CRA



Clause		Comments	Assessment
		(i) from floor level to the ceiling in the case of a unisex	
		facility; or	
		(ii) to a height of not less than 1.5 m above the floor if primary school children are the principal users; or	
		(iii) 1.8 m above the floor in all other cases.	
		b) The door to a fully enclosed sanitary compartment must—	
		(i) open outwards; or	
		(ii) slide; or	
		be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F2.5, between the closet pan within the sanitary compartment and the doorway	
		Informational–	
		(a) A urinal may be—	
		(i) an individual stall or wall-hung urinal; or	
F2.6	Interpretation: Urinals and washbasins	(ii) each 600 mm length of a continuous urinal trough; or (iii) a closet pan used in place of a urinal.	CRA
		(b) A washbasin may be—	
		(i) an individual basin; or	
		(ii) a part of a hand washing trough served by a single water tap.	
F2.7	Microbial (legionella) control	This Clause is deleted from the NCC in NSW, as the installation of hot water, warm water and cooling water systems is regulated in the Public Health Regulation 2012.	Noted
F2.8	Waste management	In a Class 9a health care building a slop hopper or other like device is to be provided in accordance with this Clause.	CRA
F2.9	Accessible adult	_	N/A
	change facilities		,
	B – Room Heights	Information and	Nistad
F3.0	DtS Provisions	Information only. According the elevations and sections that have been provided the	Noted
F3.1	Height of rooms and other spaces	rooms heights throughout the building can comply with the provisions of this clause.	CRA
Part F4	I – Light and Ventilation	n	
F4.0	DtS Provisions	Information only.	Noted
F4.1	Provisions of natural light	As the building does not contain Class 2,3,4,9a and 9c parts, then natural light is not technically required.	N/A
F4.2	Methods and extent	-	N/A
	of natural light		
F4.3	Natural light borrowed from adjoining room	-	N/A
F4.4	Artificial lighting	Lighting to the all areas is to comply with AS 1680.0.	CRA
F4.5	Ventilation of rooms	All rooms to be provided with Clause F4.6 compliant natural ventilation OR a mechanical ventilation or air-conditioning system complying with AS 1668.2-2012.	CRA
		(a) Natural ventilation provided in accordance with F4.5(a) must consist of permanent openings, windows, doors or other devices which can be opened—	
F4.6	Natural ventilation	(i) with an aggregate opening or openable size not less than 5% of the floor area of the room required to be ventilated; and	CRA
		(ii) open to—	
		(A) a suitably sized court, or space open to the sky; or	
		(B) an open verandah, carport, or the like; or	
		(C) an adjoining room in accordance with F4.7.	
F4.7	Ventilation borrowed	Ventilation may be 'borrowed' from adjoining rooms in some	CRA
	from adjoining room	instances in accordance with this clause.	*****



N/A

Ref: C19506-NCC-r2

F6.0

DtS Provisions

Clause Comments Assessment Restriction on location All sanitary facilities throughout the building open into locations that F4.8 CRA of sanitary meet the requirements of this Clause. compartments No airlocks. All sanitary facilities are assumed to be provided with F4.9 Airlocks CRA mechanical ventilation Every storey of a carpark, except an open-deck carpark, must have a system of mechanical ventilation complying with AS1668.2-2012 or a F4.11 CRA Carparks system of natural ventilation complying with Section 4 of AS1668.4-2012. Where a commercial kitchen has a cooking apparatus that has a total Kitchen local exhaust F4.12 maximum electrical power input exceeding 8kW or a total gas power CRA ventilation input exceeding 29mJ/h Part F5 – Sound Transmission and Insulation This Part does not apply to this building F5.0 **DtS Provisions** N/A Part F6 - Condensation management

SECTION G – ANCILLARY PROVISIONS					
Clause	Clause Comments Assessmen				
Part G1	Part G1 – Minor Structures and Components				
G1.0	DtS Provisions	This Part does not apply to this building	N/A		

This Part does not apply to this building

SECTION H – SPECIAL USE BUILDINGS			
Clause		Comments	Assessment
Part H1 – Class 9b Buildings			
H1.1	Application of Part	This Part does not apply to this building	N/A

SECTION J – ENERGY EFFICIENCY No assessment undertaken. Refer to report prepared Steenson Varming

