APPENDIX G: BCA REPORT

CREDWELL

Project	Raymond Terrace Bowling Club Upgrade + Hotel Development 2 Jacaranda Avenue, Raymond Terrace NSW 2300
Report	BCA Assessment Report (BCA 2022) For DA
Reference	230436-BCA-r3
Date	5/12/2023
Client	Raymond Terrace Bowling Club C/- Monteath & Powys | Clint Forrester
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Contents

Document Control

Reference/Revision	Date	BCA Assessment Report
230436-BCA-r1 Draft DA report issued for review	08/08/2023	Prepared by Zoe Brown Building Surveyor – Unrestricted (A1) BDC 3299
230436-BCA-r2 Issued for DA	02/11/2023	Prepared by Zoe Brown Building Surveyor – Unrestricted (A1) BDC 3299 
230436-BCA-r3 Issued for DA Minor updates to address design team comment	05/12/2023	Prepared by Zoe Brown Building Surveyor – Unrestricted (A1) BDC 3299 

1 Introduction

1.1 Objectives

The purpose of this report is to provide an assessment against Volume One of the Building Code of Australia 2022 (BCA) addressing all relevant Deemed-to-Satisfy clauses therein.

The report will identify where the subject building achieves compliance and non-compliance with the BCA, and provide instances where a Performance Solutions may be available. Any recommended Performance Solutions are required to be prepared under separate cover.

Part 3 'Assessment Summary' of this report outlines the identified compliance matters that require further information or consideration and/or assessment as a Performance Solution (to be prepared separately).

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.

1.2 Limitations

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

1. The structural adequacy or design of the building;
2. The capacity or design of any electrical, fire, hydraulic or mechanical services;
3. The inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
4. 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:

1. The National Construction Code – Plumbing Code of Australian Volume 3;
2. The Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to),
3. The provision of disabled access to the subject development, being any assessment of the Deemed-to-Satisfy provisions of Part D3 and Clauses E3.6, F2.4 & F2.9;
4. Any Development Consent conditions;
5. The Liquor Licencing Act 2007;
6. The Work Health and Safety Act 2011;
7. The Swimming Pools Act 1992; and
8. Requirements of Authorities including, but not limited to, Fire and Rescue NSW, WorkCover, RMS, Council, Telecommunications Supply Authority, Electricity Supply Authority, Water Supply Authority, Gas Supply Authority and the like.
9. Requirements of BCA Section J.

Interpretations

A number of matters within the BCA 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 BCA 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.

1.3 Reviewed documentation

This report is based on documentation referenced in Annexure A.

2 Proposed Development

2.1 Building location

The building, the subject of this report, is located at 2 Jacaranda Avenue, and 1 Swan Street, Raymond Terrance NSW 2300, identified as Lot 23 of DP 758871 and Lot 23 of DP 1088281.

It is assumed that the 2 lots will be consolidated as part of the proposed development.

An existing two storey RSL club building with associated carparking and bowling greens are situated on the site. The building contains dining, gaming, function, and administration areas.

Figure | Satellite Image of the Site | source: sixmaps

2.2 Proposal

The proposed development consists of the redevelopment of the 2 storey bowling club and construction of a new 6 storey hotel building on the allotment.

The bowling club upgrades consist of the reconfiguration of the ground floor area, and extension and reconfiguration of the first-floor dining, function, gaming and bar areas and the enclosure of the bowling green.

A hotel building and will consist of hotel suites, rooftop pool and terrace area, function room, restaurant and boardrooms.

A new 2 storey carpark will connect the two buildings such at that are one building, however fire walls are proposed to allow the buildings to be assessed as two separate buildings for the purposes of Parts C, D, and E of the BCA. This allows the bowling club to remain of Type B construction, while the hotel is required to achieve Type A construction.

For the purposes of this report, the buildings will be reference to as:

1. The bowling club: consisting of the bowling club building, enclosed bowling greens, and carpark areas; and
2. The Hotel: consisting of the hotel building only.

A markup of the first-floor plan below shows which areas are proposed as part of each building for the purposes of the BCA assessment.

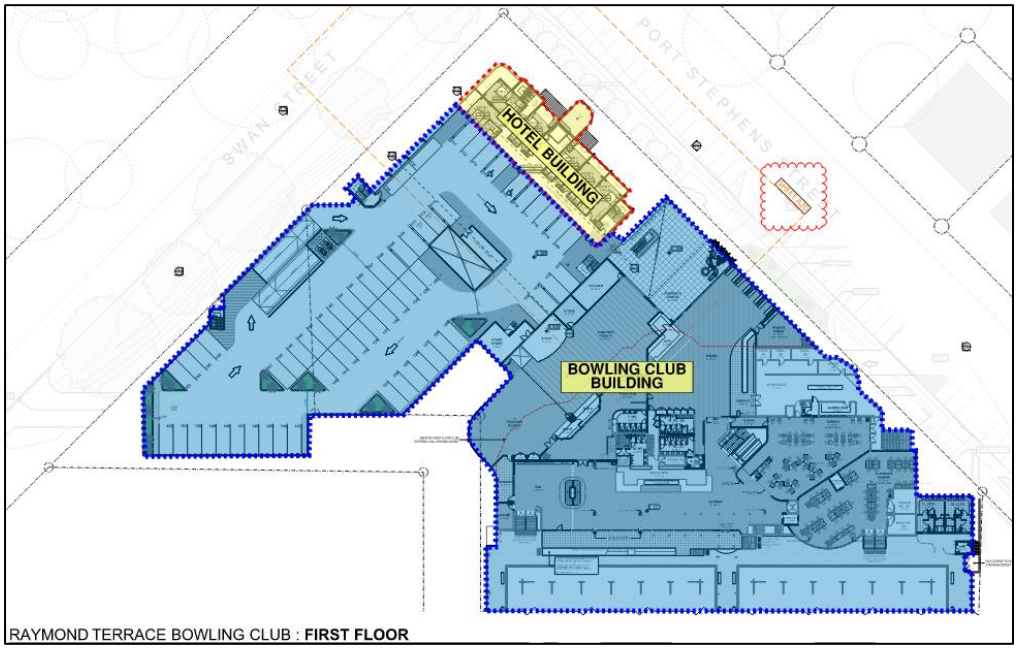


Figure | First Floor Plan Markup of building split | Source: EJE architectural plans

The construction staging strategy will be reviewed in detail as part of the CC phase to ensure suitable measures for evacuation are maintained throughout each stage.
Phase 1: Club, parking and croquet lawn
Phase 2: Enclosure of the bowling greens to the south
Phase 3: Carpark and hotel building.

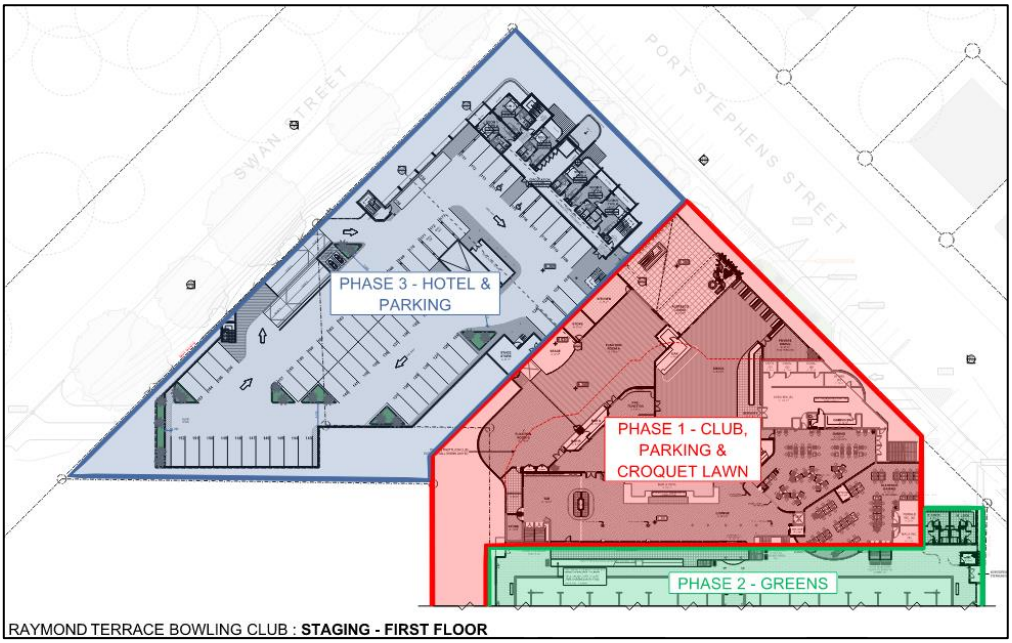


Figure | First Floor Plan Markup of building split | Source: EJE architectural plans

2.3 Building description

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

Building Classification	3 Hotel 7a Carpark 7b Storage 9b Assembly Building (club)	Levels Contained	Hotel: 6 Bowling Club: 2
Rise in Storeys	Hotel: 6 Bowling Club: 2	Effective Building Height (m)	Hotel: 15.5 m (RL 18.78 – RL 3.28) Bowling Club: 3.1 m (RL 6.38 – RL 3.28)
Type of Construction	Mixed: Type A: Hotel Type B: Bowling club and carpark.	Climate Zone	5 Port Stephens Council

2.4 Classification

Bowling club Building				
Location	**Class**	**Use**	**Floor Area**	**Occupants**
Ground Floor	7a, 9b	Carpark & Assembly Building	9,651 m²	12 Staff 758 Patrons
	6	Shop (Bottleshop) (<10% of the storey area)	40	2 staff 12 patrons
	7a	Carpark	4,316 m²	144 (ancillary)
	7b	Storage (<10% of the storey area)	754 m²	26 (ancillary)
	9b	Assembly Building (Bowling Club) Function Room Office	 138 m² 94 m²	 138 patrons 10 (staff)
	9b	Assembly Building (Bowling Green)	3,907 m	*620 patrons
First Floor	7a, 9b	Carpark & Assembly Building	5,498 m²	995 patrons 36 Staff
	7a	Carpark	2,525 m²	85 (ancillary)
	7b	Storage (<10% of the storey area)	120 m²	4 (ancillary)
	9b	Assembly Building (Bowling Club)	2,931 m²	995 patrons 36 Staff 441 food and bev 95 Gaming 459 Function
Total	**7a, 9b**	**Carpark & Assembly Building**	**15,149 m²**	**48 staff** **1,753 patrons**

Hotel Building				
Location	**Class**	**Use**	**Floor Area**	**Occupants**
Ground Floor	3 & 7b	Hotel and Storage	172 m^2	4 Staff
	3	Hotel reception	40 m^2	4
	7b	Bin store (> 10% of the storey area)	36 m^2	*Ancillary*
First Floor	3	Hotel	368 m^2	12
Second Floor	3	Hotel (incl pool and gym)	1,132 m^2	91
Third Floor	3	Hotel	826 m^2	34
Fourth Floor	3	Hotel	826 m^2	34
Fifth Floor	3, 9b	Hotel Assembly Building (Function area and Restaurant)	704 m^2	*180 patrons 10 office 10 staff 10 boardroom/office 180 function +food and bev 10 restaurant staff
Total	**3, 7b, 9b**	**Hotel, Storage & Assembly Building**	**-**	**14 staff 10 boardroom 180 food and bev patrons**

Note:

In accordance with Clause A6G1 [2019:A6.0], Exemption 1 of the BCA, for the purposes of determining a building classification, where a part of a building has been designed, constructed or adapted for a different purpose and is less than 10% of the floor area of the storey it is situated on, the classification of the other part of the storey may apply to the whole storey.

Storage areas (class 7b) includes general storage areas, cleaners' rooms, garbage rooms and the like.

Occupant numbers for the Bowling Club dining and gaming areas have been calculated based on the number of seats shown on the fit-out plans.

Occupant numbers for all other areas have been calculated in accordance with Clause D2D18 [2019:D1.13] of the BCA.

The floor areas identified within the table are in accordance with the BCA definition which may vary from the GFA as determined in accordance with NSW planning legislation.

The NSW Environmental Planning and Assessment Regulation 2021 defines an *Entertainment Venue* as: *a building used as a cinema, theatre or concert hall, or an indoor sports stadium.* The development has not been assessed as an "entertainment venue".

The occupant numbers on the fifth level to the Hotel is restricted to 200 based on the egress width provided.

The occupant numbers to the bowling greens is restricted to 620 maximum based on the egress width provided.

2.5 Fire Compartmentation

Bowling Club Building:

The entire bowling club building, including the bowling greens, has been assessed as one fire compartment as the ground and first floor of the bowling club which are connected via non-fire isolated stairs. Furthermore, the bowling greens are enclosed and directly connected to the bowling club without proposed fire separation.

Fire Compartment Area:
Ground Floor Bowling Club Area: 1,428 m²
Greens floor area: 3,907 m²
First Floor Bowling Club Area: 2,973 m²
Total: 8,308 m²

Volume is to be confirmed by the architect.

Note: The carparking areas are not included in the Fire Compartment area in accordance with BCA Clause C3D2 as the carpark has been considered to be an open-deck carpark.

Clause C3D3 of the BCA restricts the fire compartment for a Class 9b Type B construction to have a maximum floor area of 5,500 m² and maximum volume of 33,000 m³. The floor area of the compartment (8,308 m²) is over the maximum area permitted (5,500 m²).

The fire compartment area is 2,808 m² over the maximum area permitted in accordance with Clause C4D3 and design amendments may be required to divide the bowling club into 2x fire compartments in order to reduce the size. This item is subject to further review and consultation with a suitably qualified fire engineer to determine whether a performance solution can be supported.

Hotel Building:

Each level of the building has been considered as a separate fire compartment.

- Fire Compartment No.1
  Ground Floor of the Hotel
  Area: 54 m²
  Volume: To be confirmed by the architect.

- Fire Compartment No.2:
  First Floor of the Hotel
  Area: 334 m²
  Volume: To be confirmed by the architect.

- Fire Compartment No.3:
  Second Floor of the Hotel
  Area: 1,132 m²
  Volume: To be confirmed by the architect.

- Fire Compartment No.4:
  Third Floor of the Hotel
  Area: 826 m²
  Volume: To be confirmed by the architect.

- Fire Compartment No.5:
  Fourth Floor of the Hotel
  Area: 826 m²
  Volume: To be confirmed by the architect.

- Fire Compartment No.6:
  Fifth Floor of the Hotel / Function area
  Area: 704 m²
  Volume: To be confirmed by the architect.

Details of the proposed fire wall separating the two buildings must be reviewed in consultation with a suitably qualified fire engineer at the CC phase of the development.

3 Assessment Summary

3.1 Assessment

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

3.2 Possible Performance Solutions (Fire Safety)

The following items relate to areas where a Performance Solution may be available to justify a deviation from the DtS requirements of the BCA. This report does not form a Performance Solution.

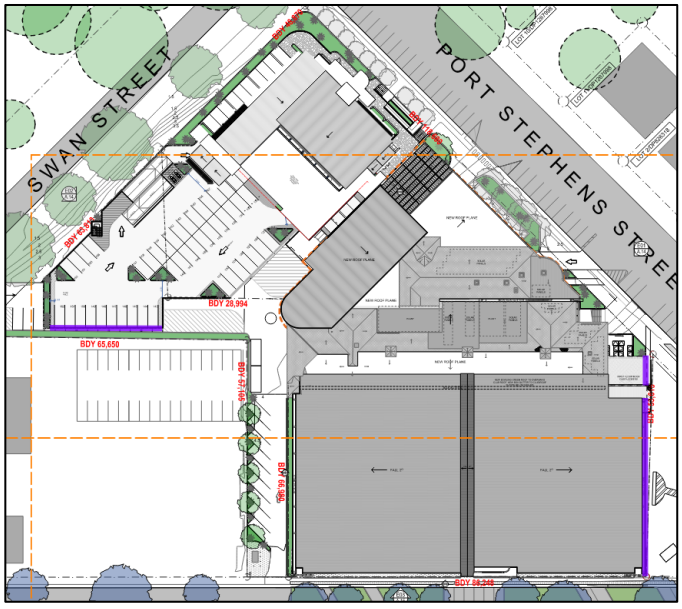
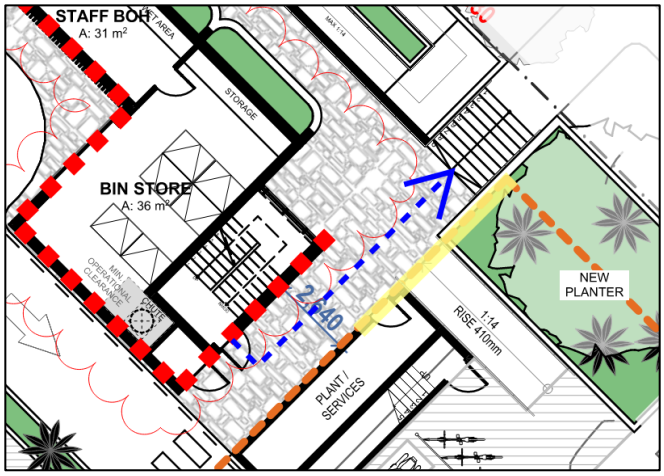
Where a Fire Engineered Performance Solution is proposed, the solution is to be prepared by a *Certifier – Fire Safety (C10)* in consultation with all stakeholders.

Referral to Fire Rescue NSW under Clause 21 of the Environmental planning and Assessment (Development Certification and Fire Safety) Regulation 2021 is required where the Fire Engineering Report contains any performance solution to address Performance Requirement C1P2 *(CP2)*, C1P9 *(CP9)*, E1P3 *(EP1.3)*, E1P4 *(EP1.4)*, E1P6 *(EP1.6)*, E2P2 *(EP2.2)* or E3P2 *(EP3.2)*. This process is to be coordinated by the certifier as part of the Construction Certificate assessment process.

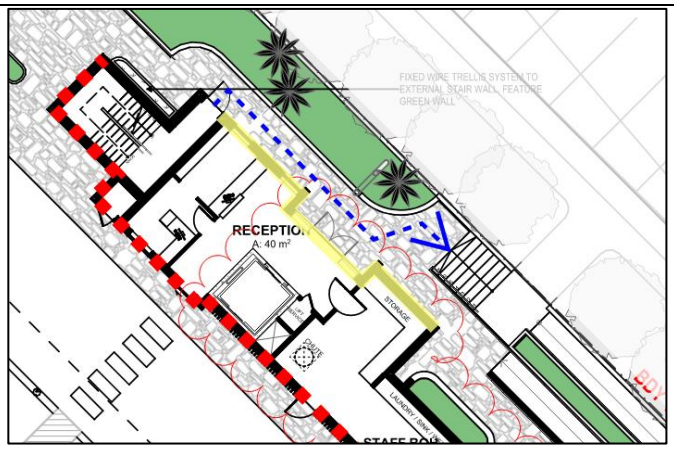
Please note that the below does not indicate the final list of performance solutions. Input from services consultants and further review of construction documentation is required to finalise this list as part of the CC stage.

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	**Garbage and Laundry Chutes | Hotel** Clause S5C8 of Spec 5 specifies that shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL as applicable to non-loadbearing shaft walls. The FRL required for this construction is --/120/120. The building contains garbage and laundry chutes which run vertically through the building and discharge into the waste room and back of house area on ground level. The bottom of the garbage and laundry chutes discharges at the ceiling level of the waste room and back of house area, and due to this arrangement, the shaft is not enclosed at the bottom with an FRL of --/120/120.	Spec 5 S5C8 [2019: C1.1 Spec C1.1]	C1P2 [2019: CP2]
2.	**Ancillary Elements – Planter Boxes** Clause C2D14 of the BCA specifies that an ancillary element that is fixed, installed or attached to an external wall must be non-combustible, except where permitted by the clause. The terms *fixed, installed and attached* are not defined within the BCA, however the intent of the clause is to prevent fire spread to the external façade of a building. These terms are broad and follow the intent of the clause, which is to capture any element that is within close proximity to the external	C2D14 [2019: C1.14]	C1P1 C1P2 [2019: CP1 CP2]

	wall. The clause is open for interpretation, and such a conservative approach is taken by Credwell. Balconies/terraces on this project are proposed to be concrete slabs which extend from the inside of the building, through the external walls to form the balconies/terraces. Due to the direct physical connection and close proximity to the external walls, the balconies/terraces are deemed to be ancillary elements, attached to the external wall and therefore are subject to the provisions of C2D14of the BCA. The Deemed-to-satisfy provisions are not met as the following combustible elements have been identified to be installed to the balconies/terraces and therefore subject to compliance with C2D14. • Planter boxes Plants themselves cannot be tested to determine their fire hazard properties, however irrigation systems and the construction of the planter boxes themselves also need to be review as part of the Construction Documentation review.		
3.	**Oversized Fire Compartment | Bowling Club** Clause C4D3 of the BCA limits the area and volume of fire compartments based on the Type of Construction and building Classification. As a Type B building the maximum floor area of a fire compartment in the bowling club permitted is 5,500 m² and maximum volume of 33,000 m³. The Deemed-to-satisfy provisions are not met as the proposed fire compartment of the bowling club is over the limitations of this clause: Area: 8,308 m² in lieu of 5,500 m² maximum. Volume: *To be confirmed* The fire compartment area is 2,808 m² over the maximum area permitted in accordance with Clause C4D3 and design amendments may be required to divide the bowling club into 2x fire compartments in order to reduce the size. This item is subject to further review and consultation with a suitably qualified fire engineer to determine whether a performance solution can be supported.	C3D3 [2019: C2.2]	C1P1 C1P2 [2019: CP1, CP2]
4.	**Protection of openings in external walls** Clause C4D3 of the BCA specifies that openings within an external wall that is required to have an FRL, be protected in accordance with BCA Clause C4D5 if the external wall located within 3m of a side or rear boundary, or within 6.0m of another building on the allotment. The building is within 3.0m of the side boundary (fire source	C4D3 C4D5 [2019: C3.2 & C3.4]	C1P2 [2019: CP2]

	feature) in the following locations and considered to be exposed: ▪ Northern boundary (façade of the bowling green enclosure and change rooms) ▪ North-Eastern Boundary (Open carpark adjacent to neighbouring carpark) These areas are highlighted in purple on the below diagram.  The Deemed-to-satisfy provisions are not met as due to the open nature of these structures, protection is not proposed in accordance with C4D5. Further information on the projection of openings on external walls where the bowling club and hotel buildings are within 6.0m of each other are to be provided and reviewed as part of the CC stage. An example of an area in question is highlighted below 		
5.	**Exit Travel Distances**	D2D5 [2019: D1.4]	D1P4 E2P2 [2019: DP4, EP2.2]

	Clause D2D5 of the BCA specifies that no point on a floor from the class 7 and 9 areas of the building must be more than: • 20m to a single exit; • 20m to a point of choice (where travel to 2 different required exits is available); • 40m to an exit (where 2 exits are available) The Deemed-to-Satisfy provisions are not met as the following distances are achieved as a worst case: <u>Bowling Club Ground Floor:</u> ▪ 48 m to an exit from the under croft area in lieu of 40 m max. <u>Bowling Club Bowling Greens:</u> ▪ 51 m to an exit in lieu of 40 m max. <u>Bowling Club First Floor:</u> ▪ 49 m to an exit in lieu of 40 m max.		
6.	**Distance Between Alternative Exits** Clause D2D6 of the BCA specifies that alternative exits must not be greater than 60m apart, and not closer than 9m. The Deemed-to-Satisfy provisions are not met as the following distances are achieved: <u>Ground Floor Bowling Club:</u> ▪ The alternative exits are 65 m apart in lieu of 60 m maximum. <u>First floor Bowling Club:</u> ▪ The alternative exits are 72 m apart in lieu of 60 m maximum.	D2D6 [2019: D1.5]	D1P4 E2P2 [2019: DP4, EP2.2]
7.	**Travel via Fire Isolated exits – Discharge within 6.0m of unprotected openings** Clause D2D12(3) of the BCA specifies that from the point of discharge from a fire-isolated exit, the path of travel must not pass within 6 m of the external wall of the subject building unless it achieves an FRL of not less than 60/60/60 and all openings are protected internally in accordance with Clause C4D5 The Deemed-to-Satisfy provisions are not met as the 2x fire isolated stairs that discharge from the hotel towards Port Street travel within 6.0m of the external façade that incorporates openings to the carpark as highlighted in yellow on the below diagram.	D2D12(3) C4D5 [2019: D1.7, C3.4]	D1P5 E2P2 [2019: DP4, EP2.2]

			
8.	**Provision for Special Hazards – Electric Vehicle Charging Stations** EV charging stations are proposed within the ground floor carpark and are deemed a special hazard to be assessed on performance basis. Discussion is to be had with the Fire Engineer and Certifier at the CC stage to confirm whether this is captured a performance solution, or assessed under the DtS provisions with a performance based assessed which is to be included in the FER.	E1D17 [2019: E1.10] E2D21 [2019: E2.3]	-

3.3 Possible Performance Solutions (Other)

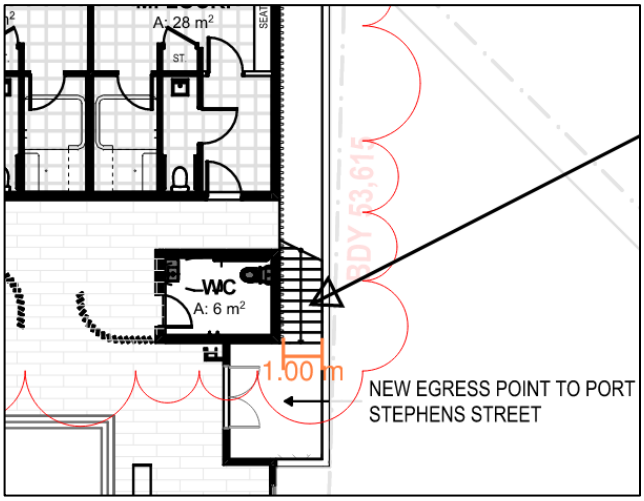
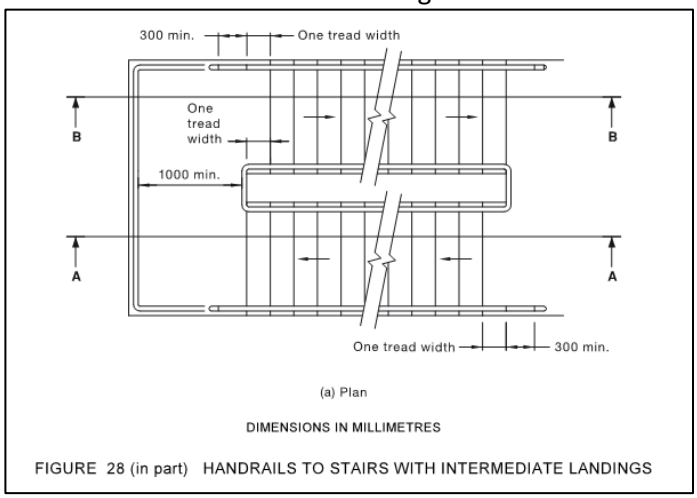
The following items relate to areas where a non-fire engineered Performance Solution may be available to justify a deviation from the DtS requirements of the BCA. This report does not form a Performance Solution.

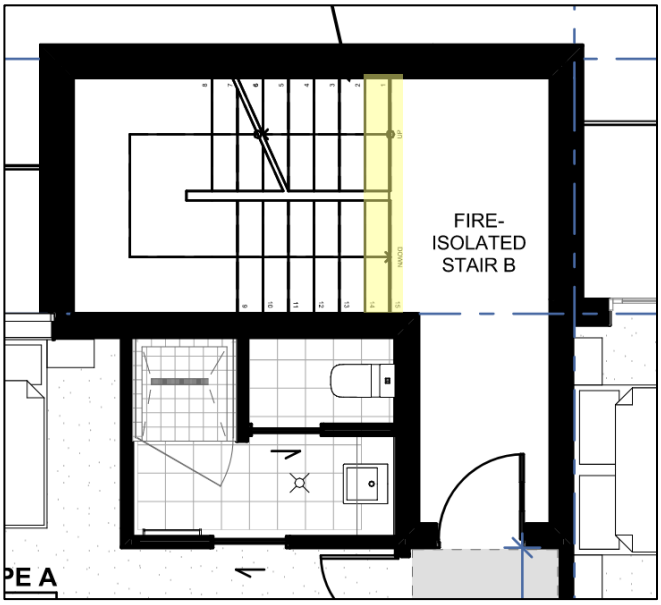
Where a Performance Solution is proposed, the solution is to be prepared by a suitably qualified person in consultation with all stakeholders.

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	**Weather Proofing** The external wall cladding must be: ▪ Masonry to AS 3700; or ▪ Autoclaved aerated concrete to AS 5146.3; or ▪ Metal wall cladding to AS 1562.1. Where the cladding does not meet this provision, it must be assessed on a performance basis.	F3D5	F3P1

3.4 Design amendments required

The following items have been identified as departures from the BCA deemed-to-satisfy provisions, and Credwell recommend these items to be resolved with minor design amendments prior to the application for construction certificate:

Item	Amendments required	DtS Provision
1.	**Fire Control Centre** Fire Control Centre required in accordance with Spec 19. The location is to be shown on the plans to enable further assessment as part of the CC phase	E1D15
2.	**Egress width | External Stair to the Bowling Club** 1.0 m clear egress width must be achieved for all paths of travel. The external stair to the north west of the bowling club is currently 1.0m wide without handrails documented. These stairs must be widened to allow for handrails to be installed to each side. 	D2D8
3.	**Fire Isolated Stairs | Hotel – Offset treads** Ensure that the fire-isolated stairways has setbacks at the bottom of a stair flight as per Figure 26 of AS1428.1-2009 to ensure that the handrails maintain a consistent height.  FIGURE 28 (in part) HANDRAILS TO STAIRS WITH INTERMEDIATE LANDINGS The stair as documented currently does not provide offset treads to meet the above requirement and design amendments are required.	D4D4

	Note this comment is to be applied to all stairs within the development. 	

3.5 Further information required

For the purposes of this report, general arrangement floor plans, elevations and sections have been reviewed to determine whether the building is capable of complying with the BCA.

Construction Documentation is to be provided and reviewed by Credwell prior to the issuance of the BCA Report for the purposes of the Construction Certificate application. A detailed list of information required for review will be provided by Credwell upon engagement for the Construction Certificate stage assessment.

The below information is required for the purposes of finalising this assessment:

1. Staff Numbers are to be provided for the bowling club and hotel to enable us to confirm the assessment of sanitary facilities and provision for egress.

2. Confirmation as to whether the carpark is proposed to be open deck. If so, details of the open area to the carpark walls are to be provided to confirm this meets the DtS provisions of the BCA.

3. Total volume of the bowling club is to be confirmed by the architect. The volume calculation is to include all ground and first floor areas of the club, and the enclosed bowling greens. This calculation is not to include the carpark areas.

4. Confirmation as to what type of Sprinkler System is proposed to the hotel building is required to enable further assessment (AS 2118.1 vs FPAA101D vs FPAA101H).

4 Statement of Compliance

The architectural design documentation prepared for submission for the Development Application (as referred to in Annexure A of this report) have been assessed against the relevant provisions of the BCA. This assessment was limited to an assessment of the BCA in order to identify any items that may necessitate a modified development consent or additional key items that must be included in the design. It is considered that the documentation complies or is capable of complying with the BCA as outlined in Part 6 subject to resolution of items identified in this Report.

As identified in the Clause by Clause assessment, sufficient construction documentation is required in order to undertake a full assessment prior to the application for Construction Certificate.

5 Legislative Requirements

The following legislation outline some of the pertinent requirements which must be reviewed and satisfied prior to the issue of a Development Application.

5.1 Clause 62 of the Environmental Planning & Assessment Regulation 2021

Clause 62 of the Environmental Planning and Assessment Regulations 2021 applies to existing buildings subject to a Development Application for the change of building use, where the proposal does not seek the rebuilding or alteration of the building.

This clause does not apply to the development as the proposal involves building alteration works.

5.2 Clause 64 of the Environmental Planning & Assessment Regulation 2021

Clause 64 of the Environmental Planning and Assessment Regulations 2021 applies to existing buildings subject to a Development Application for the rebuilding or alteration of the building where:

Clause 64 (1)

(a) the proposed building work and previous building work together represent more than half of the total volume of the building, or

(b) the measures contained in the building are inadequate—

(i) to protect persons using the building, if there is a fire, or

(ii) to facilitate the safe egress of persons using the building from the building, if there is a fire, or

(iii) to restrict the spread of fire from the building to other buildings nearby.

Where this clause applies to the development:

(2) The consent authority must consider whether it is appropriate to require the existing building to be brought into total or partial conformity with the Building Code of Australia*.*

This clause applies to the development as the total building work represents more than half of the building volume as per Clause 64(1)(a)

The local Consent Authority (Council) have at the Development Approval stage discretion on the level of fire safety upgrading deemed necessary, being either a total upgrade to satisfy the provisions of the BCA or partial upgrading depending on the design, construction extent of alterations and additions and circumstances of the particular building.

It should be noted that under Clauses 64 above, the primary concern with existing buildings is that of protecting persons using the building and to facilitate their egress from the building in the event of a fire or to restrict the spread of fire from the building to other buildings nearby.

Element	Credwell Assessment

(1)(b)(i) to protect persons using the building, if there is a fire	The fire safety systems are proposed to be upgraded as part of the development.
(1)(b)(ii) to facilitate the safe egress of persons using the building from the building, if there is a fire	An egress assessment has been undertaken for the development. Any shortfalls are proposed to be addressed with performance solutions as part of the Construction Certificate phase.
(1)(b)(iii) to restrict the spread of fire from the building to other buildings nearby	The fire safety systems are proposed to be upgraded as part of the development. Furthermore, any existing unprotected openings are to be addressed such that the BCA performance requirements are met.

As a part of the new works we note that it is expected that the fire services, such as fire hydrant coverage, smoke detection and alarm systems, emergency lighting and exit signage systems will be upgraded to meet current standards.

Note is made that the existing shade structures over the bowling greens to the east of the site do not currently contain any fire safety measures. All fire safety measures as required to the building are to be extended to cover the new enclosed bowling greens area. This includes but is not limited to emergency lighting and exit signs, smoke detection and alarm systems, hydrant coverage, hose reel coverage, and smoke hazard management requirements.

6 Clause by Clause Assessment

An assessment of the proposal has been undertaken against each clause of the BCA and the following abbreviations have been used.

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 BCA 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. See Appendix D for a proposed specification
Complies	The proposal shows compliance with the Deemed-to-Satisfy Clause.
DNC	The design does not comply with the Deemed-to-Satisfy Clause and design amendments are required
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.
To be assessed at CC stage	An assessment against this provision is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.

SECTION B - STRUCTURE				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part B1 – Structural Provisions				
An assessment against Section B has not been undertaken as part of this report and a suitably qualified Structural Engineer is to be engaged to confirm compliance with this part (where applicable).				

SECTION C – FIRE RESISTANCE				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part C1 – Fire resistance				
This part details the objectives, functional statements, performance requirements and verification methods relevant to this Section.				
Part C2 – Fire resistance and stability				
C2D1	C1.0	DtS Provisions	Information only.	Noted
C2D2	C1.1	Type of construction required	Bowling Club: The building is to be of Type B Construction. Hotel: The building is to be of Type A Construction.	Noted
C2D3	C1.2	Calculation of rise in storeys	Bowling Club: The rise in storey of the building is 2. Hotel: The rise in storey of the building is 6. 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
C2D4	C1.3	Buildings of multiple classifications	Information only.	Noted
C2D5	C1.4	Mixed types of construction	The bowling club and hotel buildings are proposed to be separated with a fire wall, subject to performance solutions. Mixed types of construction is proposed in accordance with this provision.	Noted
C2D6	C1.5	Two storey Class 2, 3 and 9c buildings	The development is not a two storey class 2, 3 or 9c building and therefore this clause does not apply.	N/A
C2D7	C1.6	Class 4 parts of buildings	The development does not contain a class 4 part and therefore this clause does not apply.	N/A
C2D8	C1.7	Open spectator stands and indoor sports stadiums	The development does not contain an open spectator stands or indoor sports stadiums and therefore this clause does not apply.	N/A
C2D9	C1.8	Lightweight construction	Lightweight construction must comply with Specification 6.	To be assessed at CC stage
C2D10	C1.9	Non-combustible building elements	Elements of a Building of Type A & B Construction are required to be non-combustible as listed within this Clause. This Clause also provides a list of materials permitted to be used wherever non-combustible materials are required. The materials and finishes indicated on the DA plans are capable of complying with this provision. Details of materials, finishes, linings and wall types are to be provided to enable assessment, including AS 1530 test reports for each product must be provided as part of the CC stage.	CRA
C2D11	C1.10	Fire hazard properties	Fire hazard properties of all materials to comply with this Clause and Specification 7.	To be assessed at CC stage

Clause	[2019]	Description	Comments	Assessment
			Details of proposed floor, wall and ceiling linings, air-handling ductwork, sarking and insulation type materials, including AS 1530.3 test reports are to be provided to enable a full assessment.	
C2D12	C1.11	Performance of external walls in fire	1-2 storey buildings with external walls constructed with tilt-up panels or the like must comply with specification 8	To be assessed at CC stage
C2D13	C1.13	Fire-protected timber: Concession	Fire-protected timber may be used wherever an element is required to be non-combustible if in accordance with this provision.	To be assessed at CC stage
C2D14	C1.14	Ancillary elements	Ancillary elements other than those listed in this Clause are not to be fixed, installed or attached to internal parts or external face of an external wall that is required to be non-combustible. Details of materials are to be provided to enable assessment, including AS 1530 test reports for each product must be provided as part of the CC stage. The planter boxes within the development are subject to a performance solution as outlined in part 3.2 of this report.	To be assessed at CC stage **PS**
C2D15	-	Fixing of bonded laminated cladding panels	Bonded laminated cladding on a Building of Type A Construction must be in accordance with this provision.	To be assessed at CC stage
Part C3 – Compartmentation and separation				
C3D1	C2.0	DtS Provisions	Information only.	Noted
C3D2	C2.1	Application of Part	C3D3, C3D4, C3D5 do not apply to a carpark provided with an AS 2118 sprinkler system complying with Specification 17, an open deck carpark, or an open spectator stand.	Noted
C3D3	C2.2	General floor area and volume limitations	The development is within the area and volume limitations of this clause except where outlined in part 3.2 of this report.	**PS**
C3D4	C2.3	Large isolated building	The development does not exceed the area and volume limitations of clause C3D3 and therefore this clause does not apply.	N/A
C3D5	C2.4	Requirements for open spaces and vehicular access	The development does not exceed the area and volume limitations of clause C3D3 and therefore this clause does not apply.	N/A
C3D6	C2.5	Class 9 buildings	The development does not contain a class 9a or 9c part, or an early childhood centre and therefore this clause does not apply.	N/A
C3D7	C2.6	Vertical separation of openings in external walls	Hotel building: Confirmation on the type of sprinkler system proposed is to be provided. Where the building is proposed to be provided with an AS 2118.1 sprinkler system spandrels or horizontal construction are not required in accordance with this provision. The building is currently not capable of complying the spandrel and horizontal construction requirements in accordance with this clause and design amendments are required where an AS 2118.1 sprinkler system is not proposed. Bowling Club: the bowling club is of Type B Construction and this clause does not apply to that building.	FI
C3D8	C2.7	Separation by fire walls	If fire walls are utilised, they must comply with this Clause.	To be assessed at CC stage

Clause	[2019]	Description	Comments	Assessment
C3D9	C2.8	Separation of classifications in the same storey	Each storey must be constructed to achieve the FRLs applicable to a higher class, or the different classifications must be separated from one another by fire walls. Where separation is required, FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	To be assessed at CC stage
C3D10	C2.9	Separation of classifications in different storeys	Each storey must be separated from the storey below by construction having the FRL applicable to a floor for the classification in the lower storey. FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	To be assessed at CC stage
C3D11	C2.10	Separation of lift shafts	FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	To be assessed at CC stage
C3D12	C2.11	Stairways and lifts in one shaft	The fire-isolated stairway and the lift are in separate shafts.	CRA
C3D13	C2.12	Separation of equipment	Where separation is required, FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	To be assessed at CC stage
C3D14	C2.13	Electricity supply system	Where separation is required, FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	To be assessed at CC stage
C3D15	C2.14	Public corridors in a Class 2 and 3 buildings	The hotel corridors on levels 2, 3 and 4 are greater than 40m in length and are to be divided in half with smoke proof construction complying with S11C2. Details are to be provided as part of the Construction Documentation.	To be assessed at CC stage
Part C4 – Protection of openings				
C4D1	C3.0	DtS Provisions	Information only.	Noted
C4D2	C3.1	Application of Part	Information only.	Noted
C4D3	C3.2	Protection of openings in external walls	Openings within external walls that are required to have an FRL and are within the limitations of this provision must be protected in accordance with C4D5. The building is within 3.0m of the side boundary (fire source feature) in the following locations and considered to be exposed: ▪ Northern boundary (bowling green, openings in the locker rooms) ▪ North-Eastern Boundary (Open carpark adjacent to neighbouring carpark) Due to the open nature of these structures, a performance solution is proposed in lieu of providing protection in accordance with C4D5.	**PS**
C4D4	C3.3	Separation of external walls and associated openings in different fire compartments	The hotel and club have been assessed as separate fire compartments. The separation between them is approximately 3.0 m and requires any openings to be protected in accordance with C4D5. FRL plans and proposed protection of openings are to be provided as part of the Construction Documentation to enable further assessment.	FI

Clause	[2019]	Description	Comments	Assessment
C4D5	C3.4	Acceptable methods of protection	Where protection is required, doorways, windows and other openings must be protected in accordance with provision	To be assessed at CC stage
C4D6	C3.5	Doorways in fire walls	If fire walls are utilised, any doorways through them must be protected in accordance with the requirements of this Clause.	To be assessed at CC stage
C4D7	C3.6	Sliding fire doors	The development does not incorporate any sliding fire doors and therefore this clause does not apply.	N/A
C4D8	C3.7	Protection of doorways in horizontal exits	The development does not incorporate any horizontal exits and therefore this clause does not apply.	N/A
C4D9	C3.8	Openings in fire-isolated exits	The doorways to fire-isolated exits are to be self-closing -/60/30 fire door sets.	To be assessed at CC stage
C4D10	C3.9	Service penetrations in fire-isolated exits	Fire-isolated exits may not be penetrated by any service other than electrical wiring for lighting and intercom systems, water supply for fire services and other fire related services.	To be assessed at CC stage
C4D11	C3.10	Openings in fire-isolated lift shafts	Lift doors are to achieve an FRL of not less than -/60- and be in accordance with this Clause. Lift indicator panes are also to comply with this Clause.	To be assessed at CC stage
C4D12	C3.11	Bounding construction: Class 2 and 3 buildings and Class 4 parts	The doorways to the units, and rooms off the public corridors, are to be self-closing -/60/30 fire door sets.	To be assessed at CC stage
C4D12	C3.12	Openings in floors and ceilings for services	All service shafts are to have FRLs as set by Tables S5C11a-S5C11g of Specification 5	To be assessed at CC stage
C4D14	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.	To be assessed at CC stage
C4D15	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.	To be assessed at CC stage
C4D16	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.	To be assessed at CC stage
C4D17	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.	To be assessed at CC stage
Specification 5 – Fire-resisting construction [2019: Spec C1.1]				
S5C1	1	Scope	This Specification contains the requirements for fire resisting construction of building elements.	Noted
	2	General Requirements	-	-
S5C2	2.1	Exposure to FSF	The building is exposed to FSF to the north and north east from neighbouring properties.	CRA
S5C3	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.	To be assessed at CC stage

Clause	[2019]	Description	Comments	Assessment
S5C4	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.	To be assessed at CC stage
S5C5	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	To be assessed at CC stage
S5C6	2.5	General concessions	Information only	To be assessed at CC stage
S5C7	2.6	Mezzanine floors: Concession	The building does not contain a mezzanine and therefore this clause does not apply.	N/A
S5C8	2.7	Enclosure of Shafts	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.	To be assessed at CC stage
S5C9	2.8	Carparks in Class 2 and 3 buildings	The development does not meet the requirements for this concession and therefore it does not apply.	N/A
S5C10	2.9	Residential aged care building: Concession	The building does not contain a residential aged care building and therefore this clause does not apply.	N/A
	3	Type A Construction		
S5C11	3.1	Fire-resistance of building elements	The building elements are to have FRLs as determined by this Clause. See annexure C of the Report.	To be assessed at CC stage
S5C12	3.2	Concessions for floors	A floor need not have an FRL in accordance with the concessions given in this clause.	To be assessed at CC stage
S5C13	3.3	Floor loading of Class 5 and 9b buildings: Concession	If a floor of a Class 5 or 9b building is designed for a live load not exceeding 3kPa then reductions in FRLs are available.	To be assessed at CC stage
S5C14	3.4	Roof superimposed on concrete slab: Concession	A roof superimposed on a concrete slab need not have an FRL of it complies with this Clause.	To be assessed at CC stage
S5C15	3.5	Roof: Concession	A roof need not have an FRL if its covering is non-combustible, and the building meets the requirements of this Clause.	To be assessed at CC stage
S5C16	3.6	Rooflights	The building does not contain any roof lights and therefore this clause does not apply.	N/A
S5C17	3.7	Internal columns and walls: Concession	This concession may be applied where applicable	To be assessed at CC stage
S5C18	3.8	Open spectator stands and indoor sports stadiums: Concession	This concession may be applied where applicable	To be assessed at CC stage
S5C19	3.9	Carparks	This concession may be applied where applicable	To be assessed at CC stage
S5C20	3.10	Class 2 and 3 buildings: Concession	This concession may be applied where applicable	To be assessed at CC stage
Specification 6 – Structural tests for lightweight construction [2019: Spec C1.8]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 7 – Fire hazard properties [2019: Spec C1.10]				

Clause	[2019]	Description	Comments	Assessment
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.				
Specification 8 – Performance of external walls in fire [2019: Spec C1.11]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 9 – Cavity barriers for fire-protected timber [2019: Spec C1.13]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 10 – Fire-protected timber [2019: Spec C1.13a]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 11 – Smoke-proof walls in health-care and residential care buildings [2019: Spec C2.5]				
N/A This specification does not apply to the development.				
Specification 12 – Fire doors, smoke doors, fire windows and shutters [2019: Spec C3.4]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 13 – Fire doors, smoke doors, fire windows and shutters [2019: Spec C3.15]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				

SECTION D – ACCESS AND EGRESS

Clause	[2019]	Description	Comments	Assessment
Part D1 – Access and egress				
This part details the objectives, functional statements, performance requirements and verification methods relevant to this Section.				
Part D2 – Provision for escape				
D2D1	D1.0	DtS Provisions	Information only.	Noted
D2D2	D1.1	Application of Part	Information only.	Noted
D2D3	D1.2	Number of exits required	The building must be provided with at least 1 exit from all areas. The provision of exits throughout the building complies.	Complies
D2D4	D1.3	When fire-isolated stairways and ramps are required	Hotel: The stairs to the hotel portion must be fire isolated as they connect more than 3 storeys. Bowling Club & Carpark: The stairs to the bowling club connect only two storey and are not required to be fire isolated.	CRA
D2D5	D1.4	Exit travel distances	The distances to an exit are within the limitations of this clause except where subject to a proposed performance solution as outlined in part 3 of this report. Note: The concessions under Spec 18 have been applied to the Hotel portion (sprinklers to Class 3 buildings not more than 25m in effective height)	PS
D2D6	D1.5	Distance between alternative exits	The distances between alternative exits are within the limitations of this clause except where subject to design amendments and a possible performance solution as outlined in part 3.2 of this report.	PS
D2D7	D1.6(a)	Height of exits, paths of travel to exits and doorways	The required exit or path of travel to an exit must be not less than 2m in height. The reduction in height to 1980mm is permitted at any doorway.	CRA
D2D8	D1.6(b), (c), (d) and (e)	Width of exits and paths of travel to exits	A minimum clear width of 1m is required. The 1m is to be clear of all obstructions such as handrails, PFE, hydrants etc.	CRA

Clause	[2019]	Description	Comments	Assessment
			There are pinch points within the design where less than 1.0m is achieved and design amendments are required. Refer to part 3.4 Based on the total number of occupants within the building, the below aggregate egress width is required: <u>Bowling Club: Enclosed Greens:</u> Total width provided: 5.75 m 2.0 m = 200 3.75 m = 420 occupants total = 200 + 420 = 620. The maximum number of occupants to the enclosed greens area is 620. <u>Bowling Club: ground Floor:</u> Total width provided: 4.5m 2.0m + 500mm for every 60 in excess of 200. 200 = 2 m 2.5 m / 0.5m = 5 60 x 5 = 300 200 + 300 = 500 occupants. Complies <u>Bowling Club First Floor:</u> 973 (+ staff) = Estimated 1,000 total 2.0m + 500mm for every 60 in excess of 200. 200 = 2 m 800 / 60 = 14 0.5 m x 14 = 7 m Total aggregate width required = 2 m + 7 m = 9 m Total provided width provided = 14.5 m Complies <u>Hotel And carpark levels:</u> Less than 200 occupants and complies. <u>Level 5 (Function):</u> Egress width provided – 2.2m This allows for up to 200 occupants on this level. The number of patrsons on this level is therefore restricted to 180 (20 staff).	
D2D9	D1.6(f)	Width of doorways in exits or paths of travel to exits	The minimum width of 750mm through a doorway is required unless otherwise specified in this clause. Given that the access requirements in D4 require a minimum 850mm clearance in accessible areas, we recommend providing clear width of 850mm throughout the development.	CRA
D2D10	D1.6(g)	Exit width not to diminish in direction of travel	The unobstructed width of a required exit must not diminish in the direction of travel.	CRA

Clause	[2019]	Description	Comments	Assessment
D2D11	D1.6(h) & (i)	Determination and measurement of exits and paths of travel to exits	The required stairway and/or ramp must have an unobstructed width (measured clear of handrails) of no less than 1,000mm.	CRA
D2D12	D1.7	Travel via fire-isolated exits	The discharge of the fire isolated exits are within the limitations of this clause except where subject to a possible performance solution as outlined in part 3.2 of this report.	**PS**
D2D13	D1.8	External stairways or ramps in lieu of fire-isolated exits	There are no external stairways in lieu of fire-isolated stairways in the development.	N/A
D2D14	D1.9	Travel by non-fire-isolated stairways or ramps	The travel distance via the non-fire-isolated exits are within the limitations of the DtS provisions.	CRA
D2D15	D1.10	Discharge from exits	The discharge from exits must comply with the requirements of this clause.	CRA
D2D16	D1.11	Horizontal exits	There are no horizontal exits in the development.	N/A
D2D17	D1.12	Non-required stairways, ramps or escalators	The escalator within the class 9b bowling club connects 2 floors, once of which is the ground floor and therefore complies with this clause.	Complies
D2D18	D1.13	Number of persons accommodated	Occupant calculations have been provided in part 2.4 of this report.	Noted
D2D19	D1.14	Measurement of distances	Information only.	Noted
D2D20	D1.15	Method of measurement	Information only.	Noted
D2D21	D1.16	Plant rooms, lift machine rooms, electricity network substations: Concession	Access for maintenance must be in accordance with this provision.	To be assessed at CC stage
D2D22	D1.17	Access to lift pits	If the building incorporates a lift pit, access to it must comply with this clause.	To be assessed at CC stage
D2D23	D1.18	Egress from primary schools	The building does not incorporate a Class 9b primary school and therefore this clause does not apply	N/A
Part D3 – Construction of Exits				
D3D1	D2.0	DtS Provisions	Information only.	Noted
D3D2	D2.1	Application of Part	Information only.	Noted
D3D3	D2.2	Fire-isolated stairways and ramps	The stairs within the fire-isolated stairs are to be non-combustible and not cause structural damage to the shaft if there is local failure.	To be assessed at CC stage
D3D4	D2.3	Non-fire-isolated stairways and ramps	The construction of the non-fire-isolated exit stairway(s) must be in accordance with this provision	To be assessed at CC stage
D3D5	D2.4	Separation of rising and descending stair flights	The building does not incorporate rising and descending stair flights and therefore this clause does not apply.	N/A
D3D6	D2.5	Open access ramps and balconies	The building is not proposed to be provided with open access ramp or balconies to meet the smoke hazard	N/A

Clause	[2019]	Description	Comments	Assessment
			management requirements of E2D4-E2D13 and therefore this clause does not apply.	
D3D7	D2.6	Smoke lobbies	The building is not required to be provided with a smoke lobby required by D2D12 and therefore this clause does not apply.	N/A
D3D8	D2.7	Installations in exits and paths of travel	Access to services must be in accordance with this provision.	To be assessed at CC stage
D3D9	D2.8	Enclosure of space under stairs and ramps	The stairways are not shown to be enclosed to for a cupboard or similar enclosed space.	Complies
D3D10	D2.9	Width of required stairways and ramps	The required stairways with a width over 2m are to be divided with a handrail.	CRA
D3D11	D2.10	Pedestrian ramps	There are no ramps within the building serving as a required exit shown on the current plans.	CRA
D3D12	D2.11	Fire-isolated passageways	Where applicable, fire-isolated passageways must be constructed in accordance with this clause.	To be assessed at CC stage
D3D13	D2.12	Roof as open space	There is no roof that has been assessed as open space.	N/A
D3D14	D2.13	Goings and risers	Stair geometry and treads slip resistance must comply with this Clause. Stair construction details must be provided as part of the Construction documentation to enable further review.	To be assessed at CC stage
D3D15	D2.14	Landings	Landings for flights of stairs are to be at least 750mm long, have a maximum gradient of 1:50 and have a slip resistance in accordance with this Clause. Stair construction details must be provided as part of the Construction documentation to enable further review.	To be assessed at CC stage
D3D16	D2.15	Thresholds	The threshold of a door must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf in accordance with this Clause.	To be assessed at CC stage
D3D17	D2.16(a), (b) and (c)	Barriers to prevent falls	Trafficable surfaces above a meter in height are to be provided with a barrier.	To be assessed at CC stage
D3D18	Table D2.16a	Height of barriers	Generally, the minimum barrier height required is 1m in height. However, on stairways and ramps the minimum barrier height required is 865mm.	To be assessed at CC stage
D3D19		Openings in barriers	The openings are to comply with the requirements of this clause.	To be assessed at CC stage
D3D20		Barrier climbability	Barriers required on a floor more than 4m above the surface beneath must not incorporate climbable elements between 150mm to 760mm.	To be assessed at CC stage
D3D21		Wire barriers	Wire barriers must be in accordance with this provision	To be assessed at CC stage
D3D22	D2.17	Handrails	Handrails are to comply with this Clause.	To be assessed at CC stage
D3D23	D2.18	Fixed platforms, walkways, stairways and ladders	Where used must comply with AS1657, not proposed in the development.	To be assessed at CC stage
D3D24	D2.19	Doorways and doors	The doorways and doors throughout the building are capable of complying with this provision.	CRA
D3D25	D2.20	Swinging doors	The swinging exit doors throughout the building are capable of complying with this provision.	CRA

Clause	[2019]	Description	Comments	Assessment
D3D26	D2.21	Operation of latch	All doorways must be provided with latches compliant with the requirements of this clause.	To be assessed at CC stage
D3D27	D2.22	Re-entry from fire-isolated exits	Re-entry is not required from the fire-isolated stairs.	N/A
D3D28	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.	To be assessed at CC stage
D3D29	D2.24	Protection of openable windows	Windows to the bedrooms of the Class 3 parts are to be provided with window locks in accordance with this Clause.	To be assessed at CC stage
D3D30	D2.25	Timber stairway: Concession	The concession is not being sought.	N/A

Part D4 – Access for People with a Disability
Credwell have not been engaged to undertake an assessment against Part D4 of the BCA. Please refer to the third party Access Report for details.

SECTION E – SERVICES AND EQUIPMENT

Clause	[2019]	Description	Comments	Assessment
Part E1 – Fire fighting equipment				
E1D1	E1.0	DtS Provisions	Information only.	Noted
E1D2	E1.3	Fire hydrants	The building is required to be provided with a Hydrant System in accordance with this provision and AS 2419.1-2021. Details of the proposed hydrant system is to be provided by a suitably qualified hydraulic consultant as part of the Construction Documentation. Any proposed deviations from DtS within the hydrant system design are to be raised by the hydraulic consultant for discussion with relevant stakeholders to determine whether a performance solution can be supported.	To be assessed at CC stage
E1D3	E1.4	Fire hose reels	The building is required to be provided with a Fire Hose Reel System in accordance with this provision and AS 2441, except for the class 3 hotel portion. Details of the proposed fire hose reel system is to be provided by a suitably qualified hydraulic consultant as part of the Construction Documentation. Any proposed deviations from DtS within the hose reel system design are to be raised by the hydraulic consultant for discussion with relevant stakeholders to determine whether a performance solution can be supported.	To be assessed at CC stage
NSW E1D4 - E1D13	E1.5	Sprinklers	Hotel Building: The building is required to be provided with a sprinkler system to Spec 17 / 18 and AS 2118.1 / FPAA101H / FPAA101D in accordance with clause E1D6. Details of the proposed sprinkler system are to be provided by a suitably qualified hydraulic consultant as part of the Construction Documentation. Any proposed deviations from	To be assessed at CC stage

Clause	[2019]	Description	Comments	Assessment
			DtS within the sprinkler system design are to be raised by the hydraulic consultant for discussion with relevant stakeholders to determine whether a performance solution can be supported.	
E1D5	Table E1.5	Where sprinklers are required: all classifications	The building does not have an effective height or more than 25m and therefore this clause does not apply.	N/A
E1D6	Table E1.5	Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings	The building contains class 3 parts, has a rise in storeys of 4 or more, but an effective height of not more than 25m and therefore the whole building is required to be provided with a sprinkler system to Spec 18 and AS 2118.1, or FPAA101D; or FPAA101H. The building is more than 4 storeys and therefore an AS 2118.4 system cannot be proposed.	To be assessed at CC stage
E1D7	Table E1.5	Where sprinklers are required: Class 3 building used as a residential care building	The building does not contain any class 3 residential care areas and therefore this clause does not apply.	N/A
E1D8	Table E1.5	Where sprinklers are required: Class 6 building	The building does not contain class 6 areas and therefore this clause does not apply.	N/A
E1D9	Table E1.5	Where sprinklers are required: Class 7a building, other than an open-deck carpark	Sprinklers are required as the building contains a class 7a carpark with a fire compartment that accommodates more than 40 vehicles. Sprinklers to this area must be in accordance with AS 2118 *Note: where the carpark is open deck, this requirement does not apply. Confirmation is to be provided.	FI
E1D10	Table E1.5	Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings	The building does not contain class 9a or 9c use and therefore this clause does not apply.	N/A
E1D11	Table E1.5	Where sprinklers are required: Class 9b buildings	The building does not contain class 9b early childhood centre, or a stage that is greater than 200 m² and therefore this clause does not apply.	N/A
E1D12	Table E1.5	Where sprinklers are required: additional requirements	The building does not contain an atrium and has not been assessed as a large isolated building and therefore this clause does not apply.	N/A
E1D13	Table E1.5 (note 4)	Where sprinklers are required: occupancies of excessive hazard	The building does not contain excessive hazards and therefore this clause does not apply.	N/A
E1D14	E1.6	Portable fire extinguishers	The building is to be provided with portable fire extinguishers in accordance with this provision and AS 2444.	To be assessed at CC stage
E1D15	E1.8	Fire control centres	As the building contains class 6, 7, 8, or 9 uses with a floor area of more than 18,000m^2, a fire control centre is required to comply with spec 19.	FI
E1D16	E1.9	Fire precautions during construction	In a building under construction not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit.	Noted

Clause	[2019]	Description	Comments	Assessment
			After the building has reached an effective height of 12m the fire hydrant and hose reels are to be operational in at least every storey covered by a roof or floor, except the 2 uppermost storeys. The fire hydrant booster connections must also be installed.	
E1D17	E1.10	Provisions for special hazards	Special hazards such as EV charging stations, or battery storage are to be detailed as part of the Construction Documentation.	Performance based
Part E2 – Smoke hazard management				
E2D1	E2.0	DtS Provisions	Information only.	Noted
E2D2	E2.1	Application of Part	Information only.	Noted
E2D3	E2.2	General requirements	An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must comply with the requirements of this clause	To be assessed at CC stage
E2D4	Table E2.2a	Fire-isolated exits	The fire isolated exits are not required to be provided with an automatic air pressurisation system or open access ramps / balconies as the building has an effective height of less than 25 and no basement levels.	N/A
E2D5	Table E2.2a	Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E2D6	Table E2.2a	Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E2D7	Table E2.2a	Buildings more than 25 m in effective height: Class 9a buildings	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E2D8	Table E2.2a	Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	The building must be provided with an automatic Smoke detection and alarm system to spec 20 throughout the building	To be assessed at CC stage
E2D9	Table E2.2a	Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings	The building must be provided with an automatic Smoke detection and alarm system to spec 20 throughout the building.	To be assessed at CC stage
E2D10	Table E2.2a	Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4	This clause does not apply to this development as it is not a large-isolated buildings subject to C3D4	N/A
E2D11	Table E2.2a	Buildings not more than 25 m in effective height: Class 9a and 9c buildings	This clause does not apply to this development as it is not a Class 9a and 9c buildings	N/A

Clause	[2019]	Description	Comments	Assessment
E2D12	Table E2.2a	Class 7a buildings	Where the Class 7a carpark is not Open deck, it must be provided with a mechanical ventilation system in accordance with AS 1668.2, and clause 5.5 of AS 1668.1.	To be assessed at CC stage
E2D13	Table E2.2a	Basements (other than Class 7a buildings)	This clause does not apply to this development as it does not contain a basement.	N/A
E2D14	Table E2.2b	Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	This clause does not apply to this development as it does not contain a Class 6 buildings in fire compartments more than 2000 m2 containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit.	N/A
E2D15	Table E2.2b	Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (containing an enclosed common walkway or mall)	This clause does not apply to this development as it does not contain Class 6 buildings in fire compartments more than 2000 m2 containing an enclosed common walkway or mall.	N/A
NSW E2D16	Table E2.2b	Class 9b – assembly buildings: all	The class 9b assembly building must be provided with and automatic shutdown of any air-handling system upon the activation of smoke detections complying with S20C6. Note: This only applies when an air-conditioning system is installed in the building (excluding non-ducted individual room units with a capacity of not more than 1000L/s). Mechanical consultant to confirm whether any air-conditioning system is proposed subject to this provision as part of the Construction Certificate phase.	To be assessed at CC stage
NSW E2D17	Table E2.2b	Class 9b – assembly buildings: night clubs, discotheques and the like	This clause does not apply to this development as it does not contain a Class 9b night club, discotheque or the like.	N/A
NSW E2D18	Table E2.2b	Class 9b – assembly buildings: exhibition halls, museums and art galleries	This clause does not apply to this development as it does not contain a Class 9b exhibition hall, museum or art gallery.	N/A
NSW E2D19	Table E2.2b	Class 9b – assembly buildings: other assembly buildings (not listed in NSW E2D16-E2D18)	The bowling club and level 5 function areas are assessed as class 9b assembly buildings. The bowling club fire compartment is greater than 5000 m² and the building has a rise in storeys or greater than 2, and therefore the bowling club and level 5 function areas must be provided with either: ▪ An automatic smoke exhaust system comply with spec 21; or ▪ Roof mounted automatic smoke and heat vents complying with spec 22.	To be assessed at CC stage

Clause	[2019]	Description	Comments	Assessment
NSW E2D20	Table E2.2b	Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19)	Clause E2D20 has not been adopted for NSW	N/A
E2D21	E2.3	Provision for special hazards	Special hazards such as EV charging stations, or battery storage are to be assessed as special hazards and included in the fire engineering report.	Performance based
Part E3 – Lift installations				
E3D1	E3.0	DtS Provisions	Information only.	Noted
E3D2	E3.1	Lift installations	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	To be assessed at CC stage
E3D3	E3.2	Stretcher facility in lifts	The lift must accommodate an area not less than 600mm wide x 2000mm long x 1400mm above the floor level for a stretcher. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	To be assessed at CC stage
E3D4	E3.3	Warning against use of lifts in fire	Warning signage stating DO NOT USE LIFTS IF THERE IS A FIRE is to be provided in accordance with this Clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	To be assessed at CC stage
E3D5	E3.4	Emergency lifts	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E3D6	E3.5	Landings	Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Parts D2, D3 and D4	CRA
E3D7	E3.6, table E3.6a, Table E3.6b	Passenger lifts and their limitations	If the lift(s) provided are use of electric passenger lifts, electrohydraulic passenger lifts or inclined lifts they have no limitations. Details are to be provided at CC Stage.	To be assessed at CC stage
E3D8	Table E3.6a, Table E3.6b	Accessible features required for passenger lifts	An accessibility assessment is not included as part of this report.	Noted
E3D9	E3.7	Fire service controls	The lift serves a storey above an effective height of 12m, therefore, must be provided with a fire service recall control switch and a lift car fire service drive control switch in accordance with this clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	To be assessed at CC stage
E3D10	E3.8	Residential care buildings	This clause does not apply to this development as it does not contain residential care as defined by the BCA.	N/A
E3D11	E3.9	Fire service recall control switch	Where required by Clause E3D9 a fire service recall control switch is to be provided in accordance with this Clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	To be assessed at CC stage
E3D12	E3.10	Lift car fire service drive control switch	Where required by Clause E3D9 a lift car fire service drive control switch is to be provided in accordance with this Clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	To be assessed at CC stage
Part E4 – Visibility in an emergency, exit signs and warning systems				
E4D1	E4.0	DtS Provisions	Information only.	Noted
E4D2	E4.2	Emergency lighting requirements	The building is to be provided with emergency lighting in accordance with this Clause.	To be assessed at CC stage
E4D3	E4.3	Measurement of distance	Information only.	Noted

Clause	[2019]	Description	Comments	Assessment
E4D4	E4.4	Design and operation of emergency lighting	Services designer to confirm the emergency lighting complies with the BCA and AS 2293.1-2018 as part of the CC stage.	To be assessed at CC stage
E4D5	E4.5	Exit signs	Services designer to confirm the exit signage complies with the BCA and AS 2293.1-2018 as part of the CC stage.	To be assessed at CC stage
E4D6	E4.6	Direction signs	Services designer to confirm the exit signage complies with the BCA and AS 2293.1-2018 as part of the CC stage.	To be assessed at CC stage
E4D7	E4.7	Class 2 and 3 buildings and Class 4 parts: Exemptions	This clause/exemption does not apply to this development as it does not contain a class 2 and 3 buildings and Class 4 parts	To be assessed at CC stage
E4D8	E4.8	Design and operation of exit signs	Services designer to confirm the exit signage complies with the BCA and AS 2293.1-2018 as part of the CC stage.	To be assessed at CC stage
E4D9	E4.9	Emergency warning and intercom systems	The building has an effective height of less than 25m, does not contain a class 3 or 9 part subject this clause and these for is not required to have an EWIS.	To be assessed at CC stage
Specification 17 – Fire sprinkler systems [2019: Spec E1.5]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 18 – Class 2 and 3 buildings not more than 25 m in effective height [2019: Spec E1.5a]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 19 – Fire control centres [2019: Spec E1.8]				
An assessment against clauses D19C1-S19C3, S19C5 - S19C8, & S19C11-S19C13 has not been included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
S19C4	Spec E1.8 Clause 3	Location of fire control centre	A fire control centre must be located so that egress from any part of its floor to a road or open space does not involve changes in level which in aggregate exceed 300mm.	FI
S19C7	Spec E1.8 Clause 6	Construction of a fire control room	The building contains an effect height of less than 50m and therefore is not required to contain a separate fire control room.	N/A
S19C9	Spec E1.8 Clause 8	Doors to a fire control room	The Fire control room must be accessible via two (2) paths of travel: 1. Front entrance of the building; and 2. Direct from a public place, or a fire isolated passageway which leads to a public place	N/A
S19C10	Spec E1.8 Clause 9	Size and contents of a fire control room	The building contains an effect height of less than 50m and therefore is not required to contain a separate fire control room.	N/A
Specification 20 – Smoke detection and alarm systems [2019: Spec E2.2a]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 21 – Smoke exhaust systems [2019: Spec E2.2b]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 22 – Smoke and heat vents [2019: Spec E2.2c]				

Clause	[2019]	Description	Comments	Assessment
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 23 – Residential fire safety systems [2019: Spec E2.2d]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 24 – Lift installations [2019: Spec E3.1]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 25 – Photoluminescent exit signs [2019: Spec E4.8]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				

SECTION F – HEALTH AND AMENITY

Part F1 – Surface water management, rising damp and external waterproofing				
An assessment against Part F1 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to stormwater drainage, and damp-proofing.				
Part F2 – Wet areas and overflow protection				
An assessment against Part F2 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to waterproofing and provision for floor wastes in wet areas of buildings.				
Part F3 – Roof and wall cladding				
An assessment against Part F3 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to roof coverings and weatherproofing of external walls.				
Part F4 – Sanitary and other facilities				
F4D1	F2.0	DtS Provisions	Information only.	Noted
F4D2	F2.1	Facilities in residential buildings	Facilities to the class 3 hotel area are shown to meet the requirements of this provision. Details of the location of the hotel staff facilities are to be provided to enable further review	Complies FI
F4D3	F2.2	Calculation of number of occupants and facilities	Occupant numbers have been provided under part 2.4 of this report. An equal number of males and females has been assumed.	Noted
F4D4	F2.3	Facilities in Class 3 to 9 buildings	Please refer to annexure D for sanitary facility calculations.	CRA
F4D5	F2.4	Accessible sanitary facilities	An access assessment has not been undertaken as part of this review	Noted
F4D6	Table F2.4a	Accessible unisex sanitary compartments	An access assessment has not been undertaken as part of this review	Noted
F4D7	Table F2.4B	Accessible unisex showers	An access assessment has not been undertaken as part of this review	Noted
F4D8	F2.5	Construction of sanitary compartments	The sanitary compartments are capable of complying with this provision	To be assessed at CC stage
F4D9	F2.6	Interpretation: Urinals and washbasins	Information only.	Noted

F4D10	F2.7	Microbial (legionella) control	This Clause is deleted from the BCA in NSW, as the installation of hot water, warm water and cooling water systems is regulated in the Public Health Regulation 2012.	Noted
F4D11	F2.8	Waste management	The development does not contain any class 9a parts and therefore this clause does not apply.	N/A
F4D12	F2.9	Accessible adult change facilities	An access assessment has not been undertaken as part of this review	Noted
Part F5 – Room heights				
F5D1	F3.0	DtS Provisions	Information only.	Noted
F5D2	F3.1	Height of rooms and other spaces	Room heights are to be in accordance with this provision.	To be assessed at CC stage
Part F6 – Light and ventilation				
F6D1	F4.0	DtS Provisions	Information only.	Noted
F6D2	F4.1	Provisions of natural light	Provision for natural light must be provided to the class 3 bedrooms in accordance with this provision.	CRA
F6D3	F4.2	Methods and extent of natural light	All bedrooms are shown to be provided with sliding doors. Details of the glazed area of each opening is to be confirmed and reviewed as part of the Construction Documentation	CRA
F6D4	F4.3	Natural light borrowed from adjoining room	The Class 3 hotel bedrooms are all shown to have direct access to natural light.	N/A
F6D5	F4.4	Artificial lighting	Artificial lighting to be provided to AS 1680.1. Compliance is to be confirmed by a suitably qualified electrical consultant.	CRA
F6D6	F4.5	Ventilation of rooms	Natural or mechanical ventilation to be provided to all areas of the building.	CRA
F6D7	F4.6	Natural ventilation	Suitable qualified mechanical consultant is to confirm the type of ventilation proposed (natural vs mechanical) and in turn confirm compliance with this part.	CRA
F6D8	F4.7	Ventilation borrowed from adjoining room	Suitable qualified mechanical consultant is to confirm the type of ventilation proposed (natural vs mechanical) and in turn confirm compliance with this part.	CRA
F6D9	F4.8	Restriction on location of sanitary compartments	Sanitary facilities are shown to be capable of complying with this provision.	CRA
F6D10	F4.9	Airlocks	Sanitary facilities are shown to be capable of complying with this provision.	CRA
F6D11	F4.11	Carparks	Every storey of a carpark, except an open-deck carpark, must have a system of mechanical ventilation complying with AS1668.2-2012 or a system of natural ventilation complying with Section 4 of AS1668.4-2012.	To be assessed at CC stage
F6D12	F4.12	Kitchen local exhaust ventilation	Where a commercial kitchen has a cooking apparatus that has a total maximum electrical power input exceeding 8kW or a total gas power input exceeding 29mJ/h	To be assessed at CC stage
Part F7 – Sound transmission and insulation				
An assessment against Part F7 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to measures required to reduce noise transmission between adjoining parts of the building. This part applies to class 2, 3 and 9c buildings only.				
Specification 26 – Waterproofing and water-resistance requirements for building elements in wet area [2019: Table F1.7]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 27 – Accessible adult change facilities [2019: Spec F2.9]				
This report does not include an accessibility assessment.				

Specification 28 – Sound insulation for building elements [2019: Spec F5.2]
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.
Specification 29 – Impact sound – test of equivalence [2019: Spec F5.5]
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.

SECTION G – ANCILLARY PROVISIONS

Clause	[2019]	Description	Comments	Assessment
Part G1 – Minor structures and components				
G1D1	G1.0	DtS Provisions	Information only.	Noted
G1D2	G1.1	Swimming pools	A swimming pool with a depth of water more than 300 mm and which is associated with a Class 3 part of a building, must have suitable barriers to restrict access by young children to the immediate pool surrounds in accordance with AS 1926.1 and AS 1926.2. A water recirculation system in a swimming pool with a depth of water more than 300 mm must comply with AS 1926.3.	To be assessed at CC stage
G1D3	G1.2	Refrigerated chambers, strong-rooms and vaults	Refrigerated chambers, strong-rooms and vaults that are of a sufficient size for a person to enter are to have facilities meeting the requirements of this Clause.	To be assessed at CC stage
G1D4	G1.3	Outdoor play spaces	The building does not contain a Class 9b early childhood centre and therefore this clause does not apply.	N/A
NSW G1D5	NSW G1.101	Provision for cleaning windows	A building must be provided with a safe manner of cleaning any windows located 3 or more storeys above the ground level via either windows that can be cleaned wholly from within the building or provision for the cleaning of the windows by a method complying with the WH&S Act 2001 and regulations made under that Act.	To be assessed at CC stage
Part G2 – Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues				
G2D1	G2.0	DtS Provisions	Information only.	Noted
G2D2	G2.2	Installation of appliances	The installation of a stove, heater or similar appliance in a building must comply with: (a) Domestic solid-fuel burning appliances — installation: AS/NZS 2918. (b) For boilers and pressure vessels: Specification 30.	To be assessed at CC stage
G2D3	G2.3	Open fireplaces	Open fire places are to comply with this Clause.	To be assessed at CC stage
G2D4	G2.4	Incinerator rooms	Incinerator rooms are to comply with this Clause.	N/A
Part G3 – Atrium construction				
The building does not contain an atrium that connects more than 2 storeys, or more than 3 storeys (if each storey is provided with a sprinkler system and one of those storeys is located at a level with direct egress to a road or open space). Therefore, an assessment against this part has not been undertaken and the remaining clauses have been removed from this report.				
Part G4 – Construction in alpine areas				
The building is not within an alpine area and therefore an assessment against this part has not been undertaken.				
Part G5 – Construction in bushfire prone areas				
G5D1	G5.0	DtS Provisions	Information only.	Noted
G5D2	G5.1	Application of Part	This Part applies to any Class 2 or 3 building and any Class 10a building associated with a Class 2 or 3 building constructed in designated bushfire prone area.	To be assessed at CC stage
G5D3	NSW G5.2	Protection – residential buildings	In a designated bushfire prone area the following must comply with AS 3959: (a) A Class 2 or 3 building.	To be assessed at CC stage

Clause	[2019]	Description	Comments	Assessment
			(b) A Class 10a building or deck immediately adjacent or connected to a Class 2 or 3 building.	
G5D4	New	Protection – certain Class 9 buildings	In a designated bushfire prone area the following must comply with Specification 43: (a) A Class 9a health-care building. (b) A Class 9b— (i) early childhood centre; or (ii) primary or secondary school. (c) A Class 9c residential care building. (d) A Class 10a building or deck immediately adjacent or connected to a building of a type listed in (a) to (c).	To be assessed at CC stage
Part G6 – Occupiable outdoor areas				
G6D1	G6.1	Application of Part	This section applies to the Level 2 hotel outdoor area.	Noted
G6D2	G6.2	Fire hazard properties	Linings are to comply with the fire hazard property requirements as per C2D11 of the BCA.	To be assessed at CC stage
G6D3	G6.3	Fire separation	The outdoor occupiable area is not proposed to be fire separated from the remaining parts of the store.	Noted
G6D4	G6.4	Provision of escape	Egress from the outdoor area has been considered in accordance with part D2	Noted
G6D5	G6.5	Construction of exits	Construction of exits has been considered in accordance with part D3	Noted
G6D6	G6.6	Fire fighting equipment	All required fire services are to be extended into the outdoor occupiable area.	To be assessed at CC stage
G6D7	G6.7	Lift installations	A lift is serving the level 2 outdoor occupiable area.	CRA
G6D8	G6.8	Visibility in an emergency, exit signs and warning systems	All required fire services are to be extended into the outdoor occupiable area.	To be assessed at CC stage
G6D9	G6.9	Light and ventilation	The outdoor area is not enclosed of covered and therefore complies	CRA
G6D10	G6.10	Fire orders	Fire orders to be installed in accordance with this provision.	To be assessed at CC stage
Part G7 – Livable housing design				
Part G7 does not apply in NSW and therefore this part has been removed from this report.				
Specification 30 – Installation of boilers and pressure vessels [2019: Spec G2.2]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 31 – Fire and smoke control systems in buildings containing atriums [2019: Spec G3.8]				
The building does not contain an atrium that connects more than 2 storeys, or more than 3 storeys (if each storey is provided with a sprinkler system and one of those storeys is located at a level with direct egress to a road or open space). Therefore, an assessment against this specification has not been undertaken and the remaining clauses have been removed from this report.				

SECTION I– SPECIAL USE BUILDINGS

The proposed development does not incorporate any uses subject to the provisions of Section I and therefore this section has been removed from the report.

SECTION J – ENERGY EFFICIENCY

An assessment against Section J has not been undertaken as part of this report.

Where applicable, a suitably qualified consultant is to be engaged to confirm compliance with this part. Credwell Energy is a specialised team and can offer this service.

If you require assistance, please contact Credwell Energy on 02 9281 8555 or info@credwell.com.au for further information.

Annexure A – Reviewed Documentation

This report has been based on the documentation listed below:

Architectural Details prepared by EJE, Project reference 13954		
Drawing Number	Revision	Title
A00	B	COVER SHEET
A01	C	SITE PLAN
A02	A	SITE ANALYSIS PLAN
A16	C	GROUND FLOOR PLAN
A17	C	GROUND FLOOR PLAN – CLUB
A18	C	FIRST FLOOR PLAN
A19	C	FIRST FLOOR PLAN - GREENS
A20	C	FIRST FLOOR PLAN – HOTEL
A21	C	SECOND FLOOR / ROOF
A222	C	SECOND FLOOR / ROOF – GREENS
A233	C	SECOND FLOOR – HOTEL
A24	C	THIRD FLOOR
A25	C	FOURTH FLOOR
A26	C	FIFTH FLOOR
A27	C	ROOF PLAN (HOTEL)
A28	C	NORTH-WEST ELEVATION
A29	B	SOUTH-WEST ELEVATIONS
A30	C	EAST ELEVATION
A39	A	STAGING – GROUND FLOOR
A40	A	STAGING – GROUND FLOOR
A41	A	STAGING – FIRST FLOOR
A42	A	STAGING – FIRST FLOOR
A43	A	STAGING – SECOND / ROOF
A44	A	STAGING – SECOND / ROOF

Annexure B – 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 change if Performance Solutions are proposed, or other options are taken during the Construction Certificate (CC) and/or construction stages.

Existing Fire Safety Measures – Bowling Club		
	Fire Safety Measure	**Standard of Performance**
1.	Exit signs	Bistro and Dining Area BCA 2010 E4.5, NSW E4.6, E4.8 AS 2293.1-2005 Remaining sections of Club Building BCA 90 (amdt 7) E4.5, NSW E4.6, E4.8 AS 2293.1-1987
2.	Portable fire extinguishers	BCA 90 (amdt 7) E1.6 and AS 2444-1985
3.	Automatic fire detection and alarm systems	BCA 2010 E2.2, Spec E2.2a AS 1670.1-2004
4.	Emergency lighting	Bistro and Dining Area BCA 2010 E4.2, E4.4, AS 2293.1-2005 Remaining sections of Club Building BCA 90 (amdt 7) E4.2, E4.4, AS 2293.1-1987
5.	Fire doors	BCA 90 (amdt 7) Clauses C3.2, C3.4 – C3.8, C3.11, Spec C3.4 and AS 1905.1-1990
6.	Fire hydrant systems	BCA 90 (amdt 7) Clauses E1.3 and AS 2419.1-1994
7.	Emergency Warning and Intercommunication Systems	BCA 2010 E4.9, AS 1670.4-2004, AS 4428.4-2004
8.	Fair Safe Devices	BCA 90 (amdt 7) D2.19, D2.21
9.	Smoke Control System	BCA 90 (amdt 7) Part E2

Proposed Fire Safety Measures		
	Fire Safety Measure	**Standard of Performance**
1.	Access panels, doors and hoppers to fire-resisting shaft	BCA 2022 Clause C4D14 Manufacturer's Specifications
2.	Automatic fail-safe devices (automatic doors)	BCA 2022 Clause D3D24 Manufacturer's Specifications
3.	Automatic fail-safe devices (electronic latching)	BCA 2022 Clause D3D26 Manufacturer's Specifications
4.	Automatic fire detection and alarm systems	BCA 2022 Part E2 Clause E2D8, E2D9 and Specification 20 AS1670.1-2018 (amendment 1)
5.	Building occupant warning system	BCA 2022 Part E2 and Specification 20
6.	Automatic fire suppression systems (sprinklers) – Residential buildings (Class 2 or 3) greater than three storeys *Hotel building only.*	BCA 2022 NSW E1D 4and Specification 17 and Specification 18 AS 2118.1-2017 (amendment 1 & 2) AS 2118.4-2012 FPAA101D FPAA101H
7.	Emergency lighting	BCA 2022 Clauses E4D2 and E4D4 AS/NZS 2293.1-2018 (amendment 1)
8.	Exit signs	BCA 2022 Clauses E4D5, NSW E4D6 and E4D8 AS/NZS 2293.1-2018 (amendment 1)
9.	Fire control centres	BCA 2022 Clause E1D15 and Specification 19
10.	Fire dampers	BCA 2022 Clause C4D15

Proposed Fire Safety Measures		
	Fire Safety Measure	**Standard of Performance**
		Manufacturer's Specification
11.	Fire doors	BCA 2022 Clauses C4D9, C4D12 and Specification 12 AS 1905.1-2015
12.	Fire hose reel systems *Bowling club and carpark*	BCA 2022 Clause E1D3 AS 2441-2005 (amendment 1)
13.	Fire hydrant systems	BCA 2022 Clause E1D2 AS 2419.1-2021
14.	Fire seals protecting openings in fire-resisting components of the building	BCA 2022 Clause C4D15 AS 1530.4-2014 Manufacturer's Specification
15.	Lightweight construction (fire rated)	BCA 2022 Clause C2D9 and Specification 6 Manufacturer's Specification
16.	Mechanical air handling systems (automatic shutdown)	BCA 2022 Clause NSW E216 and Specification 20 AS 1668.1-2015 (amendment 1)
17.	Portable fire extinguishers	BCA 2022 Clause E1D14 AS 2444-2001
18.	Smoke and heat vents *To the Class 9b areas* *Option for complying with NSW E2D19*	BCA 2022 Part E2 and Specification 22 AS 1668.1-2018 (amendment 1)
19.	Smoke exhaust systems *To the Class 9b areas* *Option for complying with NSW E2D19*	BCA 2022 Part E2 and Specification 21 AS 2665-2001
20.	Smoke dampers	BCA 2022 Clause C3D6, Specification 17 and Clause E2D3
21.	Smoke doors *Hotel Building*	BCA 2022 Clause C3D6, Specification 11 and Specification 12
22.	Wall-wetting sprinkler and drencher systems over permanently closed or self-closing glazed elements (option for providing protection of openings)	BCA 2022 Clauses C4D3, C4D4 and C4D5 AS 2118.1-2017
23.	Warning and operational signs	BCA 2022 Clauses D3D28 & E3D4 Environmental Planning and Assessment Regulation 2000 (EP&A Reg) Clause 183
24.	Fire alarm monitoring	BCA 2022 Clause Part E2 and Specification 20 AS 1670.3-2018 (amendment 1)
25.	Performance Solutions	TBA – Performance Solution to be carried out at the CC stage of the development

*Note: existing fire safety systems subject to modification will need to be upgraded to meet current standards, except where exemptions are approved by the certifier.

Annexure C – 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 BCA 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.

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

Bowling Club Building	
Building Element – Type B Construction	**Class 5, 7a or 9**
Loadbearing External Walls - Less than 1.5m from a FSF - 1.5 - 3m from a FSF - 3 - 9m from a FSF - 9 - 18m from a FSF - 18m or more from a FSF	 120/120/120 120/90/60 120/30/30 120/30/- -/-/-
Non-Loadbearing External Walls - Less than 1.5m from a FSF - 1.5 - 3m from a FSF - 3m or more from a FSF	 -/120/120 -/90/60 -/-/-
External Columns (not incorporated into an external wall) - Loadbearing less than 18m from a FSF - Loadbearing more than 18m from a FSF - Non-loadbearing	 120/-/- -/-/- -/-/-
Common Walls and Fire Walls	120/120/120
Internal Walls - Fire resisting lift and stair shafts – - Loadbearing - Non-loadbearing	 120/120/120 -/120/120
Internal Walls – Bounding public corridors, public lobbies and the like – - Loadbearing - Non-loadbearing	 120/-/- -/-/-
Internal Walls – Between or bounding sole-occupancy units – - Loadbearing - Non-loadbearing	 120/-/- -/-/-
Other loadbearing internal walls and columns	120/-/-

Annexure D – Sanitary Facility Calculations

The required number of sanitary facilities within the building has been calculated in accordance with table F4D4 of the BCA.

Required Number of Sanitary Facilities – Bowling Club - Staff					
Use		**Occupant no.**	**Pan**	**Basin**	**Urinal**
Bowling Club staff Total staff: 48 *Class 9b – staff*	Male	24	2 *(up to 40 males)*	1 *(up to 30 males)*	1 *(up to 25 males)*
	Female	24	2 *(up to 30 females)*	1 *(up to 30 females)*	-

The above staff facilities are provided on the ground floor and comply.

Provided Number of Sanitary Facilities – Bowling Club - Patrons					
Use		**Occupant no.**	**Pan**	**Basin**	**Urinal**
Bowling Club staff *class 9b function* *Up to 1,800 occupants total*	Male	Up to 900 males	5 pans *(up to 900 males)*	12 *(up to 2,200 males)*	12 (5 urinals + 7 pans) *(up to 950 males)*
	Female	Up to 1,150 females	15 *(up to 1,150 females)*	13 *(up to 2,350 females)*	-

The number of existing sanitary facilities within the bowling club has not been shown on the architectural plans to enable a full assessment. However based on the occupant calculations, the above sanitary facilities will allow up to 655 occupants to the bowling green area.

Hotel Building Required Number of Sanitary Facilities – Level 5 function area					
Use		**Occupant no.**	**Pan**	**Basin**	**Urinal**
Level 5 Function area Total patrons: 180 *Class 9b – Function rooms or the like*	Male	90 *Allows up to 100 males*	1 *(up to 100 males)*	2 *(up to 200 males)*	2 *(up to 100 males)*
	Female	90 *Allows up to 100 females*	3 *(up to 100 females)*	2 *(up to 150 females)*	-

Hotel Building Required Number of Sanitary Facilities – Staff					
Use		**Occupant no.**	**Pan**	**Basin**	**Urinal**
Class 3 & 9b Staff (total 14)	Male	6	1 *(up to 20 males)*	1 *(up to 30 males)*	0 *(up to 10 males)*
	Female	6	1 *(up to 15 females)*	1 *(up to 30 females)*	

The number of facilities provided on level 5 accommodates for the required number of facilities.