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BCA ASSESSMENT REPORT

**SCARLETT RESTAURANT
HARBOUR ROCKS HOTEL
34 HARRINGTON ST SYDNEY NSW**

Revision 0
25 September 2017
Project No.: 170343



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REPORT STATUS				
DATE	REVISION	STATUS	AUTHOR	REVIEWED
25.09.2017	0	Concept Design	CK	TH

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A. INTRODUCTION

A.1 BACKGROUND

This report comprises an assessment of the proposed internal alterations to the Harbour Rocks Hotel against the deemed-to-satisfy provisions of the Building Code of Australia 2016 (BCA).

A.2 AIM

The aim of this report is to:

- + Confirm that the referenced documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- + Identify any key BCA compliance matters that require further resolution.
- + Confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to clause 145 of the Environmental Planning & Assessment Regulation 2000.
- + Accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 96 of the Environmental Planning and Assessment Act 1979.

This statement has been prepared pursuant to clause 18 of the Building Professionals Regulation 2007.

A.3 PROJECT TEAM

The following BM+G Team Members have contributed to this Report:

- + Assessment – Tony Heaslip (Director)
- + Report Preparation – Chris Kelson (Building Surveyor)

A.4 DOCUMENTATION

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- + Building Code of Australia 2016 (BCA)
- + Guide to the Building Code of Australia
- + Concept Design Presentation prepared by Welsh + Major dated 27th July 2017
- + Fire Engineering Report prepared by Rawfire, Report No. S110744_ FER_05, Revision 5 dated 1 February 2012

A.5 RELEVANT VERSION OF BCA

Pursuant to clause 145(1)(b) the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time the application for the Construction Certificate was made.

The current version of the BCA is the BCA 2016, the next version of the BCA will come in force in 2019 and as such, this review has been undertaken against BCA 2016.

A.6 LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- + The following assessment is based upon a review of the referenced architectural documentation only. No review of any other consultant's drawings reports has been carried out as part of the preparation of this report.
- + This report relates to the new building works only. While consideration has been given to ensuring that the new works do not reduce the existing level of compliance, no assessment has been undertaken of the existing building.
- + The Report does not address matters in relation to the following:
 - (i) Occupational Health and Safety Act and Regulations.
 - (ii) WorkCover Authority requirements.



- (iii) Water, drainage, gas, telecommunications and electricity supply authority requirements.
 - (iv) Disability Discrimination Act 1992.
 - (v) Disabilities (Access to Premises-Buildings) Standards 2010
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A.7 TERMINOLOGY

Building Code of Australia – Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act & Regulation.

Climatic Zone – Is an area defined in BCA Figure A1.1 and in Table A1.1 for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.

Construction Type – The construction type is a measure of a buildings ability to resist a fire. The minimum type of fire-resisting construction of a building must be that specified in Table C1.1 and Specification C1.1, except as allowed for—

- (i) certain Class 2, 3 or 9c buildings in C1.5; and
- (ii) a Class 4 part of a building located on the top storey in C1.3(b); and
- (iii) open spectator stands and indoor sports stadiums in C1.7.

Note: Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.

Fire Resistance Level (FRL) - means the grading periods in minutes for the following criteria -

- (a) structural adequacy; and
 - (b) integrity; and
 - (c) insulation,
- and expressed in that order.

Performance Requirements of the BCA - A Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must meet.

Compliance with the Performance Requirements can only be achieved by-

- (a) complying with the Deemed-to-Satisfy Provisions; or
- (b) formulating an Performance Solution which-
 - (i) complies with the Performance Requirements; or
 - (ii) is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
- (c) a combination of (a) and (b).

Performance Solution (Alternative Solution) - means a method of complying with the Performance Requirements other than by a Deemed-to-Satisfy Solution.

National Construction Code Series (NCC) – The NCC was introduced 1 May 2011 by the Council of Australian Governments. The BCA Volume One (Class 2 to 9 Buildings) is now referenced as the National Construction Code Series Volume One — BCA.

Sole occupancy unit - means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes a dwelling.



B. BUILDING DESCRIPTION AND BCA CLASSIFICATION

B.1 BUILDING DESCRIPTION

The proposed development comprises alterations to Level 2 (Nurses Walk Level) of the existing Harbour Rocks Hotel building to facilitate an expansion of the existing Scarlett Restaurant.

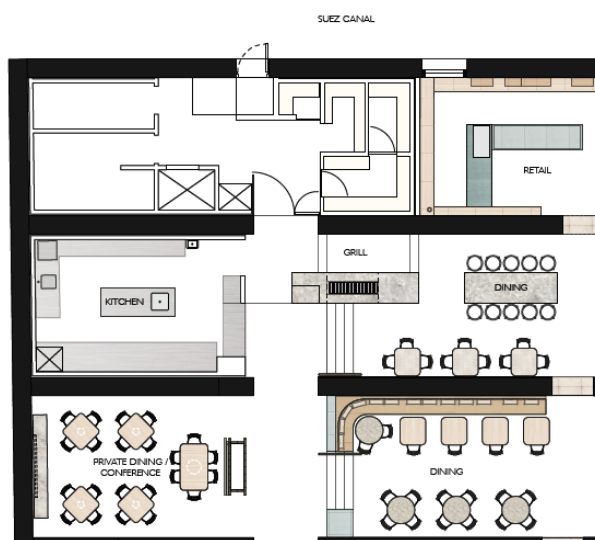


Figure 1: Concept Plan
Source: Welsh + Major

B.2 BUILDING CLASSIFICATION

The building has been classified as follows:

+	BCA CLASSIFICATION:	Class 3 Hotel Class 6 Retail/Café/Restaurant/Bar Class 6 Restaurant
+	STOREYS CONTAINED	6
+	RISE IN STOREYS:	6
+	TYPE OF CONSTRUCTION:	Type A
+	EFFECTIVE HEIGHT:	15.905m
+	CLIMATE ZONE:	5



C. SUMMARY OF COMPLIANCE ISSUES

The following comprises a summary of the key compliance issues identified under Section C of this report. These matters are to be addressed prior to issue of the Construction Certificate.

BCA CLAUSE/S		DESCRIPTION
1.	Section B	Structural engineer to provide a statement confirming that the existing building is capable of withstanding any new loads associated with new works and that the new works will not affect the structural capacity of the building.
2.	C1.1 & Spec. C1.1	It is recommended that any new ceiling proposed over the commercial kitchen part should incorporate an appropriate fire rating to minimise the risk of fire spread to the level above containing hotel suites
3.	C2.2	It is noted that there is currently additional fire separation in the vicinity of the kitchen area. Further review of the fire separation is required to determine purpose of the separation and whether it needs to be maintained or altered as part of the new works.
4.	E1.3 & E1.4	It is noted that the existing fire hydrant and fire hose reel may require re-positioning as a result of the new works. In this instance, the new location for the fire hydrant and fire hose reel is required to comply with the BCA DTS provisions i.e. within 4m of an exit.
5.	Section J	The new building works is subject to compliance with the Energy Efficiency Provisions of BCA Section J. In particular, ABCB glazing calculators will be required for any proposed new glazing to be installed to the external walls.
6.	FER	A statement is required from an accredited Fire Safety Engineer confirming that the proposed works do not affect the existing Fire Engineering Report that applies to the building.



D. BCA ASSESSMENT

The following is a summary of relevant BCA requirements that apply to the development.

BCA SECTION B - STRUCTURE

1. Part B1 – Structural Provisions

Structural engineering details prepared by an appropriately qualified structural engineer to be provided to demonstrate compliance with BCA Section B as applicable to the new works.

Furthermore, the structural engineer should confirm that the existing building is capable of withstanding any new loads associated with new works.

BCA SECTION C – FIRE RESISTANCE

2. **Clause C1.1 – Type of Construction Required:** In determining the Type of Construction required consideration has been given to the BCA classification, and the rise in storeys. In this instance, Type A Construction is required in accordance with BCA Specification C1.1.

New building elements will be required to comply with BCA Specification C1.1 where applicable. In this instance, any new structural elements will require fire resisting construction generally achieving a 3hr fire rating unless rationalised under a fire engineered Performance Solution.

In this regard, it is recommended that any new ceiling proposed over the commercial kitchen part should incorporate an appropriate fire rating to minimise the risk of fire spread to the level above containing hotel suites.

3. **Clause C1.8 – Lightweight Construction:** Any lightweight construction must comply with Specification C1.8 where it will be used in a wall system that is required to have an FRL.

If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if

- + The covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2m above the floor to prevent indenting; and
- + The column is liable to be damaged from movement of vehicles, materials or equipment, then the covering must be protected by steel or other suitable material.

4. **Clause C1.10 – Fire Hazard Properties:** The fire hazard properties of any proposed floor or wall finishes, assemblies, or sarking material are to comply with Specification C1.10 and C1.10a. In this instance, the following fire hazard properties applies:

- + Floor linings and floor coverings: CHF of not less than 1.2kW/m² and for floor coverings continued more than 150mm up a wall a group number complying with Clause 6 (a)(ii).
- + Wall linings & Ceiling linings: Material Groups 1, 2 & 3 are permitted.
- + Air handling ductwork: Rigid & flexible ductwork must comply with the fire hazard properties set out in AS 4254.
- + Sarking material: Flammability Index of not more than 5.

Product data sheets and/or test reports showing the fire hazard properties of materials complying with the above should be obtained prior to installation.



5. Clause C2.2 – General Floor Area and Volume Limitations: We note that the area in which the proposed works are situated is within the maximum floor area and volume limitations permitted under Table C2.2 of the BCA. Furthermore, we note that there is no alterations proposed to the existing fire wall separating the restaurant from the hotel part.

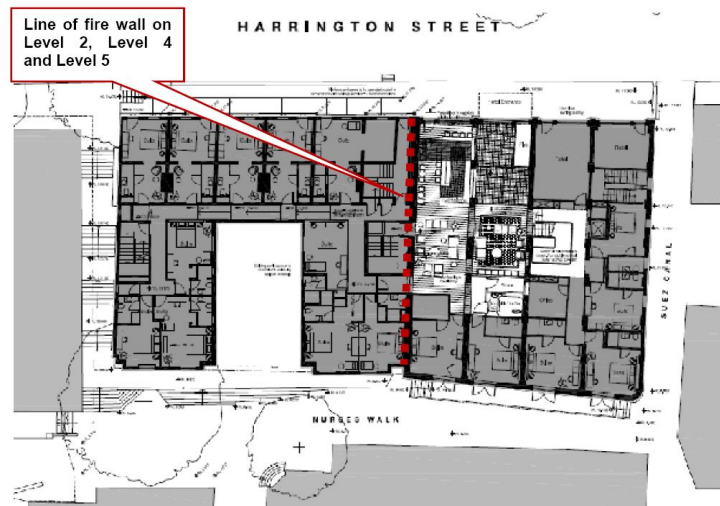


Figure 2: Existing Fire Wall

Source: Fire Engineering Report prepared by Rawfire Report No. S110744_FER_04

The integrity of the fire wall is to be maintained as part of the proposed works.

In addition to the above, it is noted that there is currently additional fire separation in the vicinity of the kitchen area. Further review of the fire separation is required to determine purpose of the separation and whether it needs to be maintained or altered as part of the new works.

6. Clause C2.12 – Separation of Equipment: Confirmation is required as to whether any proposed Studios will contain a battery or batteries that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours.

In this regard, where a Studio will contain a battery or batteries that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours, 2hr fire separation will be required.

7. Clause C3.2 & C3.4 – Openings for Service Installations: The openings in the external wall facing Nurses Walk are currently protected by external wall wetting sprinklers. It is assumed that these openings are protected given proximity to the building on the opposite side of Nurses Walk.



Figure 3: Existing protection to openings in the external wall (Nurses Walk)



It is noted that a new awning is proposed over the new terrace that will project from the external wall. Where the new awning is situated below a wall-wetting sprinkler, the fire services consultant is to ensure that the performance, operation and coverage of the existing wall-wetting sprinklers are not adversely affected. This may necessitate additional wall-wetting sprinklers being installed below the awning.

8. Clause C3.9 – Openings for Service Installations: The existing fire-isolated exits must not be penetrated by any services other than:
- (a) electrical wiring permitted by BCA cl. D2.7(e) to be installed within the exit; or
 - (b) ducting associated with a pressurisation system if it—
 - (i) is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and
 - (ii) does not open into any other part of the building; or
 - (c) water supply pipes for fire services.
9. Clause C3.15 – Openings for Service Installations: Where service installations penetrate the required fire rated ceiling or other building elements required to have an FRL with respect to integrity and insulation, they are to be protected by fire seals having an FRL of the building element concerned. Fire seals are required to comply with Specification C3.15.

Where the mechanical ventilation system penetrates floors or walls that require an FRL the installation is to comply with AS/NZS 1668.1 - 2015.

BCA SECTION D – ACCESS & EGRESS

10. Clause D1.2 – Number of exits: The minimum number of exits serving the subject storey comply BCA clause D1.2.

Exits serving the subject area are identified below.

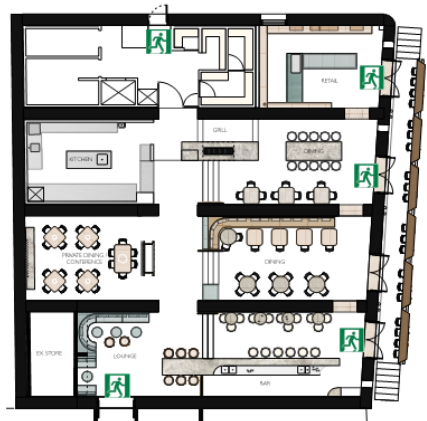


Figure 4: Nominated Exits

11. Clause D1.4 – Exit Travel Distances: Exit travel distances comply with BCA clause D1.4.
12. Clause D1.5 – Distances between Alternative Exits: Distance between alternative exits (when measured through the point of choice) comply with BCA clause D1.5.
13. Clause D1.6 – Dimensions of Exits: The unobstructed height throughout an exit or a path of travel to an exit must be not less than 2 metres, except for doorways which may be reduced to not less than 1980mm. In addition, the unobstructed width of an exit or a path of travel to an exit must be not less than 1 metre or the required exit width



determined under D1.6. We note that the internal alterations will not impact on the existing available aggregate egress widths.

There is adequate aggregate egress width serving the proposed restaurant to accommodate the proposed number of occupants (as outlined below).

14. Clause D1.13 - Number of occupants served: We note that the arising from the proposed alterations, the proposed number of occupants that the restaurant will occupy will be as follows:

- + 100 patrons
- + 20 Staff

15. Clause D2.7 - Installations in exits and Paths of Travel: Any electrical meters, distribution boards or ducts, central communications distribution boards or equipment or electrical motors must be smoke sealed and enclosed within non-combustible construction with any penetrations smoke sealed.

No new services are to be installed within the existing fire isolated exit unless they relate to fire services.

Any new gas and other fuel services must not be located within a required exit.

16. Clause D2.13 Treads and Risers: The stairs must comply with the following requirements of BCA clause D2.13.

- + A stairway must have not more than 18 nor less than 2 risers in each flight.
- + Going (G), riser (R) and quantity (2R + G) in accordance with Table D2.13.
- + Constant goings and risers throughout each flight, except as permitted by (A) and (B), and the dimensions of goings (G) and risers (R) in accordance with (a)(ii) are considered constant if the variation between—
 - (A) adjacent risers, or between adjacent goings, is no greater than 5 mm; and
 - (B) the largest and smallest riser within a flight, or the risers which do not have any openings that would allow a 125mm sphere to pass through between the treads.
- + treads which have:
 - (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 (see below) when tested in accordance with AS 4586; or
 - (B) a nosing strip with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; and
- + in the case of a required stairway, no winders in lieu of a landing.

	Riser (R)		Going (G) ^(b)		Quantity (2R+G)	
	Max	Min	Max	Min	Max	Min
Public stairways	190	115	355	250	700	550
Private stairways ^(a)	190	115	355	240	700	550

Note:

(a) Private stairways are—

- (i) stairways in a sole-occupancy unit in a Class 2 building or Class 4 part; and
- (ii) in any building, stairways which are not part of a required exit and to which the public do not normally have access.

(b) The going in tapered treads (except winders in lieu of a quarter or half landing) in a curved or spiral stairway is measured—

- (i) 270 mm in from the outer side of the unobstructed width of the stairway if the stairway is less than 1 m wide (applicable to a non-required stairway only); and
- (ii) 270 mm from each side of the unobstructed width of the stairway if the stairway is 1 m wide or more.

Figure 5: BCA Table D1.13



In addition to the above, contrast nosings are required to all stairways in accordance with AS1428.1-2009, as detailed below:

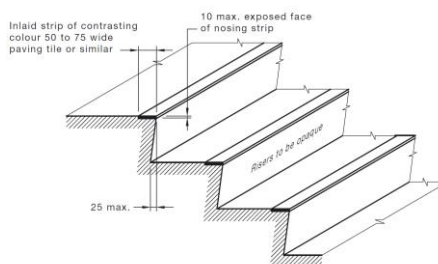


Figure 6: Stair nosings

Source: Section 10.8.1 of AS1428.1-2009

17. **Clause D2.14 Landings:** In a stairway, landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each flight and each landing must—
- (i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and
 - (ii) have—
 - (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or
 - (B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below.

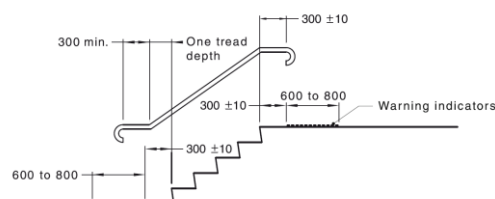
Application	Surface conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

Figure 7: BCA Table D2.14 Slip resistance classification

18. **Clause D2.15 Thresholds:** The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf, unless the doorway opens to a road or open space, external stair landing or external balcony and a threshold ramp is provided in accordance with AS 1428.1-2009.
19. **Clause D2.16 Barriers to prevent falls:** All balustrades generally must be compliant in terms of a minimum of 1 metre in height above any fall more than 1m with no gaps greater than 125mm.

Where the fall exceeds 1-metre the balustrade must be provided a minimum of 865mm in height with no gaps greater than 125mm.

20. **Clause D2.17 – Handrails:** Handrails to the proposed new stairways must be provided in accordance with BCA clause D2.17 and AS 1428.1-2009.



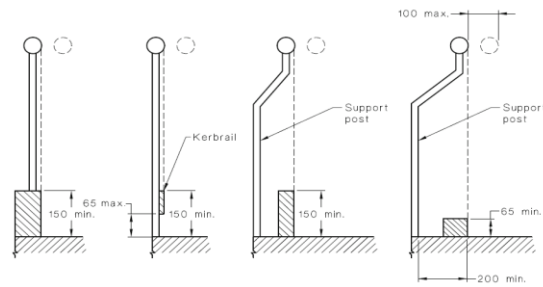


Figure 8: Handrails

Section 10.3 of AS1428.1-2009

21. **Clause D2.21 – Operation of Latch:** Doors in the path of travel and required exit doors must be readily openable without a key from the side that faces a person seeking egress, by a single hand downward action or pushing action on a single device located between 900mm and 1100mm above the finished floor level (FFL).

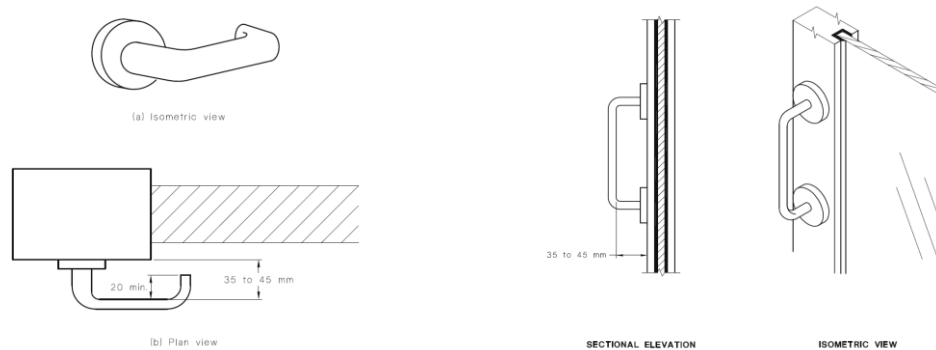


Figure 9: Door Hardware

Source – Section 13.5.2 of AS1428.1-2009

22. **BCA Part D3: Access for people with disabilities:** Refer to separate Access Report for an assessment of the accessibility provisions that apply to the proposed works.

We note that a Performance Solution will be documented in relation to access to the proposed new works having regard to site constraints associated with the heritage nature of the building.

BCA SECTION E – SERVICES AND EQUIPMENT

23. **Section E – Services and Equipment:** A copy of the current building fire safety schedule is provided in Appendix 1 of this report.

The performance, operation and coverage of base building fire services (such as fire hydrants, fire hose reels, emergency lighting, exit signage, smoke detection and alarm system, building occupant warning system, wall-wetting sprinklers) is required to be modified where necessary throughout the proposed fitout prior to occupation.

Design certification in accordance with the requirements of BCA 2016 is to be provided from the respective consultants prior to the issue of a Construction Certificate.

24. **Clause E1.3 – Fire Hydrant System:** We note that the building is currently served by a fire hydrant system. In this regard, the hydraulic consultant is to verify that the existing fire hydrant infrastructure and fire hydrant coverage to the areas of the proposed new buildings works is in accordance with AS 2419.1-2005.

Any re-positioning of existing fire hydrant will necessitate it be positioned in a location complying with the current provisions of AS 2419.1-2005 (i.e. within 4m of an exit).



25. Clause E1.4 – Fire Hose Reels: We note that the building is currently served by a fire hose reels. In this regard, the hydraulic consultant is to verify that the existing fire hose reels to the areas of the proposed new buildings works is in accordance with AS 2441.1-2005. In this instance, it is noted that the existing fire hose reel will need to be re-positioned, in which case, it must be located within 4m of an exit or horizontal exit (being fire doors in the fire wall).

The following comments are made with respect to any new fire hose reels:

- + Design and installation of any proposed fire hose reels is to comply with BCA clause E1.4 and AS 2441-2005.
- + fire hose reels must be located so that the fire hose reel will not need to pass through doorways fitted with fire doors.
- + fire hose reels must be located within 4m of an exit.

26. Clause E1.5 – Sprinklers: Any modifications to the existing sprinkler system that may be required as a result of the proposed building works are required to be undertaken in accordance with BCA clause E1.5 & AS 2118.1-1999.

27. Clause E1.6 – Portable fire extinguishers: Portable fire extinguishers are required to the building in accordance with BCA clause E1.6 and AS 2444 – 2001.

28. Clause E2.2 – Smoke hazard management:

- + The building is currently served by a smoke detection and alarm system. The existing smoke detection and alarm system should be modified to accommodate the new works in accordance with BCA clause E2.2 & AS 1670.1-2015.

Note: New building works must comply with the requirements of the current Building Code of Australia 2016. BCA 2016 requires the smoke detection and alarm system to comply with AS 1670.1-2015. Please refer to Section 3.5 of AS 1670.1:2015 Alterations to Existing Installations for further information.

- + Miscellaneous air-handling systems covered by Sections 5 and 6 of AS/NZS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with that Section of the Standard.
- + An air-handling system which does not form part of a smoke hazard management system in accordance with Table E2.2a or Table E2.2b 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—
 - (i) be designed and installed to operate as a smoke control system in accordance with AS/NZS 1668.1; or
 - (ii)
 - (A) incorporate smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and
 - (B) be arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1.

29. Clause E4.2-E4.4 – Emergency Lighting: Emergency Lighting is required throughout the building in accordance with BCA clauses E4.2 to E4.4 and AS 2293.1-2005.

30. Clause E4.5-E4.8 – Exit Signs: Exit signs are to be installed within the building in accordance with BCA clauses E4.5 to E4.8 and AS 2293.1-2005.



31. Clause E4.6 – Directional Exit Signs: Directional exit signs to be installed in the building where the exits are not readily apparent to occupants in accordance with AS 2293.1 - 2005.

BCA SECTION F – HEALTH & AMENITY

32. Clause F2.3 & F2.4 – Facilities in class 3 to 9 Buildings: We note that arising from the proposed new works, the restaurant will accommodate 100 patrons and 20 staff.

The building is currently served by existing male and female sanitary facilities at Level 2 (at the same level of the restaurant), and a unisex accessible toilet facility at Level 3 (Harrington Street Level).



Figure 10: Existing Facilities at Level 2 (Nurses Walk) & Level 3 (Harrington St)

It is considered that there is an adequate number of existing facilities to serve the proposed occupant numbers.

Notwithstanding the above, additional signage is recommended as part of the proposed alterations that identifies the locations of the sanitary facilities, particularly the accessible facility at Harrington Street Level.

33. Clause F3.1 – Height of Rooms: The floor to ceiling heights must generally not be less than:

- + Generally (except as permitted below) – 2.4m
- + Storeroom, corridor, airlock or the like – 2.1m.
- + Commercial kitchen — 2.4m
- + Above a stairway, ramp, landing or the like — 2m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like

34. Clause F4.4 – Artificial Lighting: Artificial lighting to the building is required in accordance with AS/NZS 1680.0 – 2009.

35. Clause F4.5 – Ventilation of Rooms: The altered areas are to be provided with a system of natural ventilation complying with BCA clause F4.6, or mechanical ventilation system complying with AS 1668.2-2012 and AS/NZS 3666.1.

Where an existing mechanical ventilation system is being relied upon, the mechanical engineer is to confirm that the existing system complies with AS 1668.2 for the new use particularly where there is an increase in occupant numbers.

36. Clause F4.12 – Kitchen local exhaust ventilation: We note that a Store Room / Caterer Prep Room and Café Servery is proposed on Level 1. In this regard, the Café must be provided with a kitchen exhaust hood complying with AS/NZS 1668.1 and AS 1668.2 where:

- (a) any cooking apparatus has—
 - (i) a total maximum electrical power input exceeding 8 kW; or



- (ii) a total gas power input exceeding 29 MJ/h; or
 - (b) the total maximum power input to more than one apparatus exceeds—
 - (i) 0.5 kW electrical power; or
 - (ii) 1.8 MJ gas,
- per m² of floor area of the room or enclosure.

BCA SECTION J – ENERGY EFFICIENCY

37. Section J – Energy Efficiency: The new building works is subject to compliance with the Energy Efficiency Provisions of BCA Section J relating to:

- + J1: Building Fabric
- + J2: External Glazing
- + J3: Building Sealing
- + J5: Air-conditioning and ventilation systems
- + J6: Artificial lighting and power
- + J7: Heated water supply
- + J8: Facilities for energy monitoring

E. CONCLUSION

This report comprises an assessment of the proposed internal and external alterations against the deemed-to-satisfy provisions of the Building Code of Australia 2016 (BCA).

Arising from the assessment, we are of the opinion that the proposed development can readily achieve compliance with the BCA subject to the resolution of the matters identified within Section C of this report and compliance with the requirements listed in Section D.



APPENDIX 1 – PRELIMINARY FIRE SAFETY SCHEDULE

Statutory Fire Safety Measure	Design/Installation Standard	Existing	New/Altered
Access Panels, Doors & Hoppers	Ordinance 70 part 22.12	✓	
Alarm Signalling Equipment	AS1670.3 – 2004	✓	
Automatic Fire Detection & Alarm System	BCA 2010 Spec. E2.2a (clauses 4, 6, & 7); AS 1670.1 – 2004; and Fire Engineering Report prepared by Rawfire, Report No. S110744_FER_05, Revision 5 dated 1 February 2012	✓	✓
Automatic Fire Suppression Systems <i>Fast response sprinkler heads</i>	BCA Spec. E1.5, AS 2118.1-1999 and Fire Engineering Report prepared by Rawfire, Report No. S110744_FER_05, Revision 5 dated 1 February 2012	✓	✓
Building Occupant Warning System activated by the Sprinkler System	BCA Spec E1.5 Clause 8; BCA Spec. E2.2a clause 6; and Clause 3.22 of AS 1670.1 – 2004	✓	✓
Emergency Lighting	Ordinance 70 Part 55.12 & AS 2293.1 BCA Clause E4.4 & AS 2293.1 - 2005	✓	✓
Emergency Evacuation Plan	AS 3745 - 2002	✓	✓
Exit Signs	Ordinance 70 Part 24.29 & As 2293.1 BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 - 2005	✓	✓
Fire Dampers	BCA Clause C3.15, AS 1668.1 - 1998 & AS 1682.1 & 2 - 1990	✓	✓
Fire Doors	Ordinance 70 Parts 22.7, 22.9, 24.17(6), 55.5.1, AS 1905.1 BCA Clauses C3.8 & C3.11, AS 1905.1 – 2005, and Fire Engineering Report prepared by Rawfire, Report No. S110744_FER_05, Revision 5 dated 1 February 2012	✓	
Fire Hose Reels	BCA Clause E1.4 & AS 2441 – 2005	✓	✓
Fire hydrants	Ordinance 70 Part 27.3 & Ministerial Specification 10	✓	
Fire Seals protecting openings to fire resisting components of the building.	Ordinance 70 Part 22.13 BCA Clause C3.15, AS 1530.4 & AS4072.1 - 2005	✓	✓
Lightweight Construction	BCA Clause C1.8 & AS 1530.3 – 1999	✓	
Mechanical Air Handling Systems	BCA Clause E2.2, AS/NZS 1668.1 - 1998 & AS 1668.2 – 1991	✓	✓
Paths of Travel	EP&A Regulation 2000 Part 9 Division 7 and Fire Engineering Report prepared by Rawfire, Report No. S110744_FER_05, Revision 5 dated 1 February 2012	✓	✓
Portable Fire Extinguishers	Ordinance 70 Part 27.4.1 & AS 2444 BCA Clause E1.6 & AS 2444 – 2001	✓	✓
Required Automatic Exit Doors	BCA Clause D2.19	✓	



Statutory Fire Safety Measure	Design/Installation Standard	Existing	New/Altered
Wall-Wetting Sprinklers	Ordinance 70 Part 22.4 2(b) AS 2118.1-1999	✓	✓
Warning & Operational signs	EP&A Regulations 2000 Part 9 Div 7 BCA 2010 Clause D2.23	✓	
Zone Block Plans	AS 1670.1: 2004	✓	✓
Smoke barrier (floor/ceiling system)	Fire Engineering Report prepared by Rawfire, Report No. S110744_ FER_05, Revision 5 dated 1 February 2012	✓	
Smoke barrier (wall/ceiling)	Fire Engineering Report prepared by Rawfire, Report No. S110744_ FER_05, Revision 5 dated 1 February 2012	✓	
Smoke seals	Fire Engineering Report prepared by Rawfire, Report No. S110744_ FER_05, Revision 5 dated 1 February 2012	✓	
Fire engineered Alternative Solution to allow extended exit travel distances in the following locations: - Level 3 (north-eastern part): Maximum travel distance of 21m in lieu of BCA DTS prescribed 20m. - Level 4 (northern part): Maximum 10m to a point of choice to two alternative exits in lieu of BCA DTS prescribed 6m. - The unobstructed path of travel in the Level 2 southern corridor is a minimum 940mm in lieu of 1000mm in two locations along the travel path.	BCA performance Requirements DP4 & EP2.2, and Fire Engineering Report prepared by Rawfire, Report No. S110744_FER_05, Revision 5 dated 1 February 2012.	✓	