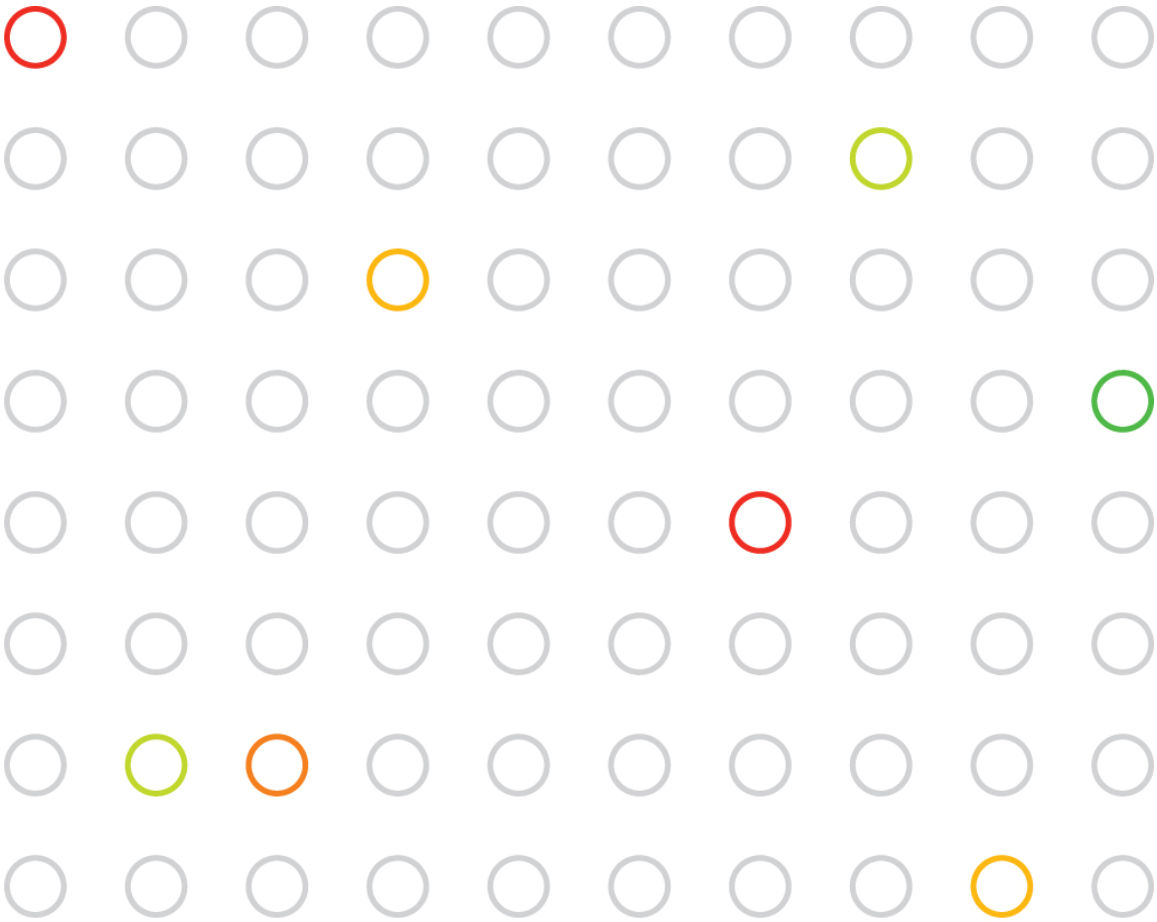
Davis Langdon

BUILDING CODE OF AUSTRALIA 2010

DA Stage Report - Park Hyatt Sydney | 22 July 2010



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A	22.6.2010	DA lodgement report	CSS
B	22.7.2010	DA Lodgement report – minor amendments	Charles Slack-Smith BPB 0378

1. EXECUTIVE SUMMARY

This report is for the purpose of outlining the BCA compliance of the existing building, as well as providing a compliance assessment of the proposed development works as part of this Development Application.

This report is split into sections, those existing non-compliances with the building, those non-compliances that have been proposed to be upgraded or addressed by the design team, and those items of non-compliance listed for assessment by the consent authority as to whether an upgrade will be required under the provisions on Clause 94 of the Environmental Planning and Assessment Regulation 2000 listed below.

Clause 94 - Consent authority may require buildings to be upgraded

(1) This clause applies to a development application for development involving the rebuilding, alteration, enlargement or extension of an existing building where:

(a) the proposed building work, together with any other building work completed or authorised within the previous 3 years, represents more than half the total volume of the building, as it was before any such work was commenced, measured over its roof and external walls, **or**

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

i. to protect persons using the building, and to facilitate their egress from the building, in the event of fire, or

ii. to restrict the spread of fire from the building to other buildings nearby.

(2) In determining a development application to which this clause applies, a consent authority is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the Building Code of Australia .

(3) The matters prescribed by this clause are prescribed for the purposes of section 79C (1) (a) (iv) of the Act.

As such the applicant and design team have advised to me as the Certifier that those matters listed in the upgrading section are the only ones proposed to be upgraded as part of these works and unless a specific DA condition requiring an upgrade for the other items is provided then this is all the upgrading works that the Applicant is anticipating to be undertaken as part of these works.

2. INTRODUCTION

Property Description

The report is for the assessment of the proposed development works as part of this Development application as the Certifying Authority and also an assessment of the compliance of the building to outline those areas of non-compliance in the building for the consent authorities assessment. A summary of all relevant clauses of the BCA for the new works proposed is attached under Appendix 1.

The report is prepared based on a visual inspection of the premises and a review of the developed documentation and the information provided by the client and is intended for their use only.

Reporting Team

The information contained within this report was prepared by Charles Slack-Smith Accredited Certifier Grade A1 (BPB 0378) from Davis Langdon.

CURRENT LEGISLATION

The applicable legislation governing the design of new buildings is the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulations 2000.

The provisions of this Act and Regs, in particular Clause 98, require that new building works are to be designed in accordance with the technical provisions of the State's building laws and in particular, the Building Code of Australia 2010.

Furthermore, the authority assessing the development consent must consider whether or not this building is required to be ungraded in accordance with Clause 94 of the EP&A Regs 2000 as part of their Section 79C evaluation as stipulated within EP&A Act 1979 detailed in the executive summary

3. BUILDING DESCRIPTION

The Project

The existing 18 year old 6 storey hotel building consists of a kidney shaped envelope. The northern and western sides face Hickson Road. The eastern side faces towards the Opera House and the southern side faces Sydney CBD. These eastern and southern elevations are setback from the Harbour by the public walkway however the title boundary has been deemed to be located along the immediate perimeter of the building.

The primary existing building materials are concrete suspended slabs for floors, double brick masonry for external walls and steel roof decking.

The existing floor areas have been determined by the design team as follows:

STOREY	AREA	COMMENT
Basement	4,105m^2	-
Ground Floor	4,100m^2	Excludes Porte coheres
Level 1	3,665m^2	Excludes balconies
Level 2	3,390m^2	Excludes balconies
Level 3	3,800m^2	Excludes balconies
Level 4 (Roof existing)	250m^2	-

Building Description

Building Use:	Hotel, Hotel Facilities & Carparking
Class of Occupancy:	Class 3, Class 6 and Class 7a
Type of Construction:	Type A
Rise in Storeys:	Six (6)
Levels Contained:	Six (6)
Effective Height:	Less than 25m

Note: As the Hotel bar areas and roof top are not proposed to be provided with Live Music or Dance Floors these areas are defined as Class 6 areas rather than Class 9b Assembly Buildings

4. BCA NON-COMPLIANCES – PROPOSED TO BE UPGRADED

1. BCA Clause C2.14 – The public corridors services the residential areas do not contain the required **dividing smoke doors/walls** at intervals of no greater than 40m. It is understood that this non-compliance is being addressed by the pending fire engineered based alternative solution report.

2. BCA Clause C3.2 & C3.4 - A large number of **unprotected openings** are positioned within 3m of the side and rear boundaries. These are facing public spaces / walkways etc and are understood to be addressed by the Fire engineer at the CC stage.

3. BCA Clause C3.11 - The **bounding construction** between the area of the public lobby/office and residential area are proposed to be provided with separation to **FRL** protection as required for fire wall separation which for Type A requires 180/180/180 FRL. The FRL's for this area are required to be illustrated for further assessment at the CC stage.

4. BCA Clause C3.12, C3.15 – All new penetrations to the floors / fire rated walls are advised to achieve compliance to these requirements, those penetrations to existing areas not subject to work are unable to be identified and are not proposed to be upgraded.

5. BCA Clause D1.4 – There were a small number of areas where the maximum permissible **travel distances** to exits and points of choice, as illustrated within Section 3 of this report.

6. BCA Clause D1.5 - The maximum permissible **travel distances between exits** to the northern and southern ends of the residential hotel on levels 1, 2 and 3 exceeds the maximum permissible of 45m. It is understood that fire engineering has been proposed to address these issues.

7. BCA Clause D1.7(c) - The porter door is not a fire-rated door and is not -/60/30 fire rated or self closing, as the discharge from the adjacent fire-isolated exits requires traversing past this opening within 6m this doesn't achieve compliance and is proposed to be upgraded.

8. BCA Clause D2.23 - There were a number of fire exit entry doors which did not contain the required signage, "FIRE SAFTY DOOR – DO NOT OBSTRUCT" on them which does not comply.

9. BCA Clause E1.4 - A number of **fire hose reels** were located greater than 4m from a required exit. A large number of fire hose reel drums did not contain the minimum required clearance of 100mm. It is understood that a combination of rectification works and fire engineering has been proposed to address this issue.

10. BCA Clause E1.5 - No required **sprinklers** have been provided to the main entry Porte-cohere. It is understood that sprinklers will be provided to the underside of this awning as required by the BCA / Australian Standard.

11. BCA Clause E1.5 – The existing **sprinkler** system compliance with AS 2118.1-1999 is required to be confirmed by the fire services engineer in regards to the areas of the works being undertaken and as otherwise advised by the services engineer .

12. BCA Clause E2.2 – The existing **detection system** does not comply with the current Standards. It is understood that a new smoke detection system complying with this provision and AS 1670.1-2004 & Clause 4.10 of AS/NZS 1668.1, as required is to be installed in the building.

13. BCA Clause E2.2 – As the air handling systems do not form part of a **smoke hazard management system** these are to be maintained / upgraded to shut down on activation of the fire alarms. Concurrence from the mechanical engineer is required at CC stage to confirm

14. BCA Clause E4.2, E4.5 & NSW E4.6 - The **emergency lighting** and **exit signage** throughout the building was generally sufficient however additional lighting and signage will be required in order to achieve compliance with current Standards as proposed by these works.

15. BCA Clause F4.5 - The **mechanical ventilation** system provided throughout is required to be in accordance with AS 1668.2-1991 and where appropriate, AS 1668.1-1998.

5. BCA NON-COMPLIANCES – NOT PROPOSED TO BE UPGRADED

Items of Current Non-compliance not proposed to be upgraded by the applicant for consent authority's assessment

Any significant non-compliant items that are not being proposed to be upgraded / addressed by the proposed refurbishment works are summarized below, the consent authority is to assess if these items are to be upgraded and a specific condition identifying which items are to be upgrade is requested to be provided with the DA consent:

1. BCA Clause C1.1 & Specification C1.1 Table 3 - The **Fire Resistance Levels** ("FRL's") have been nominated within this Report by the structural engineer are complaint except for some areas which has columns that are less than the required 120/-/- FRL, this is not proposed to be upgraded as part of these works and is an existing non-compliance with the building

2. BCA Clause B1.4 & D2.16 - The existing **balustrades** and glass balustrades not part of the redevelopment works are not proposed to be upgraded to achieve compliance with this part and part

3. BCA Clause C1.10 – The floor, wall and ceiling materials **fire hazard properties** of existing materials are not able to be determined by visual assessment, and due to their age the applicant has not proposed for them to be upgraded / assessed for compliance (Any new installations will be required to achieve compliance at the CC / OC stage of the works)

4. BCA Clause C3.9 - The city end **fire isolated passageway** in the basement Carpark area has been penetrated by and contains a large number of prohibited services. The centrally located fire isolated stair has been penetrated by and contains video wiring which is not associated with the fire safety of this stair. A communication receiver was also located in a number of the fire isolated stairs. These defects are non-compliant.

5. BCA Clause C3.11 - The staff ancillary area door jambs, opening onto the hotel residential bounding corridors, have not been back filled with mortar contrary to the requirements of AS 1905.1-2005. The majority of the **staff ancillary area doors** that open onto the hotel residential bounding corridors where not fire doors as required. This also includes the business centre doors and windows. The **gaps** between the underside of the fire doors and the finished floor exceeded the maximum permissible of 10mm in a number of cases. A minor number of the fire door and/or fire jamb rating tags had been painted over, these doors in areas not subjected to these works has not been proposed to be upgraded and are for the assessment of the consent authority.

6. BCA Clause C3.13 – The existing **laundry Shute** does not appear to contain sprinklers, and the access doors are not provided with -/60/30 fire rated doors. Which is a non-compliance.

7. BCA Clause C3.12, C3.15 – All new penetrations to the floors / fire rated walls are advised to achieve compliance to these requirements, those penetrations to existing areas not subject to work are unable to be identified and are not proposed to be upgraded.

8. BCA D1.4 – Exit Discharges – there are exit doors from the ground floor which discharge out onto the boardwalk area, this is an existing situation and is a technical non-compliance as its nota road or part of the allotment, but as it's a public area this not proposed to be upgraded as part of these works

9. BCA Clause D1.6 - The building contains a large number of areas where the minimum permissible **path of travel** to an exit has been **reduced** to less than 1000mm, these are fundamental areas of the structure and are not proposed to be upgraded, in most cases these are more than 800mm width.

10. BCA Clause D1.7(d) - The city end **fire isolated passageway** contains a number of **doors** opening into to it and is not provided with stair/ air pressurisation in accordance with AS/NZS 1668.1-1998 as such is an existing non-compliance.

11. BCA Clause D2.7 – **Video wiring** has been installed within a **fire-isolated exit** which is not associated with the operation of that exit, contrary to the requirements of this provision of the BCA as such is non-compliance.

12. BCA Clause D2.13 – A small number of **external steps** did not contain compliant step dimensions, non-slip colour contrasting nosing's, etc, as noted within Section 3 and Appendix A of this Report. In those areas where works are not proposed an upgrade is not proposed by the applicant

13. BCA Clause D2.15 - There were a number of areas throughout the building which contained doorways that incorporated **thresholds** and steps within the width of the door to either side contrary to the requirements of Clause D2.15, as noted within Section 3 and Appendix A of this Report. In those areas where works are not proposed an upgrade is not proposed by the applicant

14. BCA Clause D2.16 – there are non- compliant **balustrades** provided to the building in regards to height, toe holds and compliance in general which are not proposed to be upgraded as they are existing. Any new balustrades are to be installed as compliant this item relates to existing balustrades not part of these works.

15. BCA Clause D2.17 – Compliant **handrails** have not been provided to the external steps in the area of the fire control room entry, adjacent restaurant entry, to the canteen area step on level 1, to the external stairs leading to the road from the exit adjacent the carpark entry and to either side of the internal steps throughout the restaurant area, these are not proposed to be upgraded as part of these works

16. BCA Clause D2.21 - A large number of doors in the path of travel to exits contained **round door handles** in lieu of the required downward lever action type. A small number of doors contained non-compliant snib type locks, new doors / works will achieve compliance, however existing areas are not proposed to be upgraded as these are existing.

17. BCA Clause E1.3 - The internal **hydrants** are not installed with the fire-isolated stairs as required by this clause of the current BCA in the existing building, this is due on part as a result of the building being an Ord 70 constructed building. The Fire Hydrant for the new building is to located in compliant locations.

18. BCA Clause E1.3 & E1.5 - The **Fire hydrant & Sprinkler booster assembly** is located greater than 8m from the main road fire brigade vehicle hardstand and cannot be sighted from the main entry. (This is located around the side of the building, near the public entry stairs to the restaurant on the southern end of the building). This is an existing situation and assessment on upgrading is required by the consent authority as this is a substantial impost and is an existing situation for the building, vehicular access is available through removable bollards to access these booster/valve rooms.

19. BCA Clause E4.9 - The existing **EWIS** is to be maintained and relocated to suit the new arrangement, this system is to be maintained to the standard of performance of the original building which is AS 2220. This is not proposed to be upgraded by the applicant to the newer standard.

20. BCA Part E3 – Existing lift and vertical transport compliance upgrading is not part of these works and as such have some minor non-compliances in regards ot layout and doors are unknown in regards to fire ratings. All New lift works will achieve compliance

21. BCA Clause F3.1 - There are a few areas within the basement Carpark which are less than the required 2.1m **ceiling height**. And the maintenance area was less than the required 2.4m in height these are existing structural limitations and are not proposed to be upgraded as they are existing situations.

22. BCA Section F5 – Acoustic/Sound Insulation – the existing parts the building not being removed/altered are not proposed to be upgraded to the current acoustic requirements. All new works will achieve compliance, but no upgrade to existing is proposed by the applicant.

23. BCA Part J – Existing parts of the building not being altered by these works, an example being the external walls of the building are not known to achieve compliance and an upgrade for Part J or BASIX is not proposed. It is noted that all new works have been advised by the applicant to achieve compliance, however upgrading of areas / walls / roofs etc is not proposed in regards to insulation and glazing compliance is not achieved and is not proposed to be upgraded as part of these works.

6. BCA NON-COMPLIANCES – FIRE ENGINEERING PROPOSED

Fire Engineering has been proposed to address the following items of BCA Deemed to Satisfy Non-Compliance:

- BCA Clause C1.4 – Fire Separation of Classes of building, on the ground floor the residential wing is only proposed to be separated from the public/class 6 lobby area by construction achieving a 120/120/120 FRL as opposed to a 180/180/180 FRL with all openings protected to the same 120 FRL level.

- BCA Clause C2.14 - Smoke Doors to corridors greater than 40m distance between

- BCA Clause D1.3, D1.4 & D1.5 - Egress travel distances Distance to closest exit and distance between exits
    - Distance Between Exits
        - Residential Corridors – 53m Distance between exits
        - BOH Ground Floor – 85m Distance between exits
        - Restaurant Area – 65m Distance Between exits
    - Distance to Closest Exit
        - 32m from Roof Top outdoors pool level

- BCA Clause C3.11 - Double set of doors to Hotel room arrangement, for different uses/hires of these rooms

- BCA Clause D1.10 - Discharge of Exits onto boardwalk which does not meet the Open space definition of the BCA

- BCA Clause D2.22 - The non-fire rated extension to the fire stair up to the roof from the Spa area is proposed to be partially constructed with drenched glazing and a sliding fire door – this is non-compliant to the DTS provisions and has been advised to be assessed by the fire safety engineer.

- BCA Clause C3.2 - Fire protection to facades - public walkway / parks are on the facades but the allotment boundary is the edge of the building which is a technical non-compliance

- BCA Clause C3.11 - Non provision of compliant Fire Separation between Non-residential Spa/Gym area and Residential corridor on level 2

- BCA Clause E1.4 - Fire Hose Reel locations more than 4m to the exits

Documentation Assessed

This report is based on the following Architectural Plans issued by Hassell for the building:

Description	Drawing No.	Revision	Date
Existing Basement Plan issued by Bates Smart	A0.001_2000	1	5/12/2009
Ground Floor Plan - East	ID-GF-001	A	31.5.2010
Ground Floor Plan - West	ID-GF-002	A	31.5.2010
Level 1 Plan - East	ID-L1-001	A	31.5.2010
Level 1 Plan - West	ID-L1-002	A	31.5.2010
Level 2 Plan - East	ID-L2-001	A	31.5.2010
Level 2 Plan - West	ID-L2-002	A	31.5.2010
Level 3 Plan - East	ID-L3-001	A	31.5.2010

Description	Drawing No.	Revision	Date
Level 3 West	ID-L3-002	A	31.5.2010
Roof Plan - East	ID-RT-001	A	31.5.2010
Roof Plan - West	ID-RT-002	A	31.5.2010

7. ESSENTIAL FIRE & OTHER SAFETY MEASURES

Below is a list of essential fire safety services that are listed as being installed within the building.

Existing Fire Services

Fire Safety Measure	Standard	BCA Clause(s)
Access panels, doors & hoppers to fire resisting shafts	Ord 70 22.12 AS 1530.4	-
Automatic fail safe devices	-	D2.21,
Automatic fire detection & alarm systems	AS 1670	-
Automatic fire suppression systems	AS 2118.1	-
Emergency lighting	AS/NZS 2293.1	E4.2
Emergency lifts	AS 1735.2	-
Emergency warning and intercommunication systems	AS 2220.1 & 2 Ord 70 55.16	-
Exit signs	AS/NZS 2293.1	E4.5, NSW E4.6.
Fire alarm monitoring	AS 4428.6 AS 1670	-
Fire dampers	AS 1668.1 & 2	-
Fire doors	AS 1905	-
Fire hydrant systems	Ord 70 27.3 Min Spec No.10	E1.3
Fire seals protecting openings in fire resisting components	22.13 AS 1530.4	-
Fire shutters	AS 1905.1	-
Fire hose reel systems	Ord 70 27.2 Min Spec No.10 AS 2441	-
Mechanical air handling systems	AS 1668.1	-
Portable fire extinguishers & fire blankets	AS 2444 AS 3504	-
Smoke detectors & heat detectors	AS 1670.1	-
Solid core doors	-	C3.11
Warning and operational signs	Ord 70 59.7	-
Portable fire extinguishers & fire blankets	AS 2444 – 2001	E1.6
Safety curtains in proscenium openings	-	NSW H 101.10 NSW H 101.10.1
Smoke and heat vents	AS 2665 – 2001	Spec E2.2c, Spec G3.8 & NSW H101.22
Smoke dampers	AS 1668.1 & 2	-
Smoke detectors & heat detectors	AS 1670 – 2004 AS 3786 – 1993	Spec E2.2a Spec E2.2a
Smoke doors	-	Spec C3.4
Solid core doors	-	C3.11, NSWC3.11(d)(ii)
Standby power systems	-	Spec G3.8
Wall wetting sprinklers & drencher systems	AS 2118.1 – 1999	C3.2, C3.4, D1.7, Spec G3.8

Fire Safety Measure	Standard	BCA Clause(s)
Warning and operational signs	-	C3.6, E3.3, D2.23 & Spec E1.8
Other Measures:		
Paths of Travel	-	Section D BCA

Proposed New Fire Services

Fire Safety Measure	Standard	BCA Clause(s)
Automatic fail safe devices	-	D2.21, Spec C3.4
Automatic fire detection & alarm systems	AS 1670.1 – 2004	Spec E2.2a
Automatic fire suppression systems	AS 2118.1 – 1999	Spec E1.5
Emergency lighting	AS 2293.1 – 2005	E4.2, E4.4
Emergency Warning & Intercommunication System (EWIS)	AS 2220.1 & 2 Ord 70 55.16	-
Exit signs	AS 2293.1 – 2005	E4.5, NSW E4.6 & E4.8
Fire dampers	AS 1668.1 – 1998	Spec E2.2a
Fire doors	AS 1735.11 – 1986 AS 1905.1 – 2005	Spec C3.4, C3.10
Fire hose reel systems	AS 2441 – 2005	E1.4
Fire hydrant systems	AS 2419.1 – 2005 (New), Ord 70 Existing	E1.3 (New), Ord 70 and Min Spec No.10 (Existing),
Fire seals (protecting new openings in fire resisting components of the building)	AS 4072.1 – 2005 AS 1530.4 – 2005	Spec C3.15
Lightweight construction (fire rated plasterboard or fire spray etc)	-	C1.8, Spec C1.8
Mechanical air handling systems	AS/NZS 1668.1 – 1998 AS 1668.2 – 1991	E2.2
Portable fire extinguishers & fire blankets	AS 2444 – 2001	E1.6
Warning and operational signs	-	E3.3, D2.23
Other Measures:		
Paths of Travel	-	Section D BCA
Fire Safety Engineers report, issued by RAW Fire, revision, dated	-	-

8. CONCLUSIONS

The report outlines what has been proposed to upgrade the building for the purposes of this stage of the project, and summary identifies a number of issues in regards to the relevant BCA Requirements.

Those items the subject of fire safety engineering has been listed and is to be detailed at the Construction Certificate stage of the development.

Those areas not proposed to be upgraded are listed and relate to areas not subject to these works proposed, and are for the information of the consent authority as part of the Development Application process as detailed in Clause 94 of the Environmental Planning & Assessment Regulations 2000.

If the Development Application is not approved with any specific conditions of consent it will be assumed that the upgrading works proposed by the applicant will be sufficient to address Clause 94 of the EP & A Regulations for these works the subject of this DA.

Appendix 1

BCA Provisions

The following is a clause-by-clause assessment of the architectural drawings against the deemed-to-satisfy provisions of the BCA 2010.

Notes:

CA	Existing area of non-compliance not proposed to be upgraded for Consent Authority assessment
✓	The building complies with this clause.
X	The building does not comply with this clause.
?	Further documentation required.
CR	Design statement (or other means) required from appropriate persons that the building will comply with this clause at the design stage & completion of the project.
N/A	This clause is not applicable to this project.
AS	Alternative Solution using Performance Requirements.
Noted	This clause is for information.

SECTION A: GENERAL PROVISIONS

Icon	Clause	Reference	Comment
	A3	***Classification of buildings and structures***	
Noted		The classification of a building is determined by the purpose for which it is designed, constructed or adapted.	3 hotel, 5 offices, 6 Food, Bar and restaurant areas, 7a carparking **Note**: it is not assumed that live music and dance floors are proposed to the bar areas, if this is correct then a Class 9b classification is not applicable
	A3.3	***Multiple classification***	
Noted		Each part must be classified separately: (a) Classified to the major use if not more than 10% of the floor area of the storey. (b) Plant rooms are classified as the same part.	Gym and spa area are less than 10% of the floor area of the relevant hotel levels. The back of house staff areas are less than 10% of the floor area on the relevant hotel levels.
	A4	***PART A4 – UNITED BUILDINGS***	
	A4.1	***When buildings are united***	
N/A		Two or more buildings adjoining each other form one united building if they are connected through openings in the walls dividing them and both buildings comply with the requirements of the BCA as though they are a single building.	This clause is not applicable to this project.

SECTION B: STRUCTURAL PROVISIONS

Icon	Clause	Reference	Comment
	B1.1	***Resistance to actions & Loads***	
	B1.2	***Determination of individual actions***	
Noted		The building or structure must resist loads determined in accordance with the following: (a) Dead and live load combinations: AS 1170.1 (b) Wind loads AS 1170.2 (c) Snow loads AS 1170.3 (d) Earthquake loads AS 1170.4	The individual actions have not been assessed as part of this investigation. It is reasonable to expect that they complied with the legislation at the time of construction and therefore no further investigation is required.
	B1.3	***Materials and forms of construction***	
Noted		The building or structure must resist loads determined in accordance with the following: (a) Dead and live load combinations: AS 1170.1 (b) Wind loads AS 1170.2 (c) Snow loads AS 1170.3 (d) Earthquake loads AS 1170.4	The materials and forms have not been assessed as part of this investigation. It is reasonable to expect that they complied with the legislation at the time of construction and therefore no further investigation is required.
	B1.4	***Materials and forms of construction***	
Noted		New materials and forms of construction are to be designed to the following Australian Standards as applicable: (a) AS 3700 (b) AS 3600 (c) AS 4100 (d) AS 1288-2006 and/ or AS 2047 as applicable (e) AS 1562.1 (f) AS 1720.1 (g) AS 3660.1	New works are to achieve compliance

SECTION C: FIRE PROVISIONS

Part C1 – Fire Resistance and Stability

Icon	Clause	Reference	Comment
	C1.1	***Type of construction***	
CR/ CA		Type of Construction required is determined by the Table C1.1	The building is required to be Type A construction. The FRL's are to comply with Table 3 of Specification C1.1. The required and existing FRL's have been nominated. Some existing non-compliances have been detailed and are for the Consent Authorities assessment to decide if upgrade required
	C.1.2	***Calculation of rise in storeys***	
Noted		The rise in storeys is the greatest number of storeys at any part of the external walls of the building above the finished ground next to that part.	The building contains a rise in storeys of 6.
	C1.3	***Building of multiple classification***	
Noted		The Type of construction required is determined on the basis that the classification of the top storey applies to all storeys.	The building is required to be Type A construction.
	C1.4	***Mixed types of construction***	
AS		Building may be of mixed Types of Construction where it is separated in accordance with C2.7	The new separation between class 3 and class 6 on ground floor is new works and is less than the required 180/180/180 and is proposed to be addressed by fire engineer
	C1.5	***Two storey Class 2 or 9c buildings***	
N/A		Class 2 or 3 of two storeys may be Type C construction if each SOU has: 1. Access to at least 2 exits; or 2. It's own direct access to a road or open space.	This clause is not applicable to this project.
	C1.6	***Class 4 parts of a building***	
N/A		Class 4 part of a building requires same FRL as that required by a Class 2 in similar circumstances.	This clause is not applicable to this project.
	C1.7	***Open spectator stands and indoor sports stadium***	
N/A		May be of Type C construction if it contains only 1 tier and is of non-combustible material.	This clause is not applicable to this project.
	C1.8	***Lightweight construction***	

Noted	Lightweight construction may be used if it is in compliance with Specification C1.8.	The building contains lightweight construction. Compliance with the required FRL's is to be determined as mentioned in C1.1 above.

	C1.10	***Fire hazard properties***	
CR		Materials and assemblies used in the building must comply with the requirements of Specification C1.10, they must contain a spread-of-flame index of not more than 9 and a smoke-development Index not more than 8 if the spread of flame index is more than 5. In the case of a sarking material the Flammability Index shall not be more than 5. Floor, wall and ceiling materials must comply with Specification C1.10a. Floor materials are to contain a Critical Radiant Flux of not less than 1.2. Wall and Ceiling materials are to contain either Group 1, 2 or 3 material , except for within the roof top entertainment area which can only be Group 1 or 2. These materials must also contain a smoke growth rate index of not more than 100 or an average specific extinction area less than 250m^2/kg. If unsprinklered additional requirements apply, as well as lift finishes, and fire isolated exits have different requirements	Further documentation required fr all new materials proposed. A review of the manufactures fire hazard property test reports is required for proposed materials. Existing materials not being altered / removed are not proposed to be upgraded.
	C1.11	***Performance of external wall in fire***	
N/A		In buildings of up to two storeys, any concrete external walls that could collapse as complete panels to comply with specification C1.11.	This clause is not applicable to this project.
	C1.12	***Non-combustible materials***	
Noted		The following materials may be used where non-combustible materials are required: 1. Plasterboard. 2. Perforated gypsum. 3. Fibrous-plaster sheeting to AS 2185. 4. Fibre-reinforced cement sheeting. 5. Pre-finished metal sheeting. 6. Bonded laminated materials.	This clause is for information.

Part C2 – Compartmentation and Separation

Icon	Clause	Reference	Comment
	C2.2	***General floor area limitations***	
✓		Table C2.2 limits the size of fire compartments to:- • Class 5 or 9b Type A, 8,000m^2 & 48,000m^3 • Class 6, 7, 8 Type A, 5,000 m^2 & 30,000 m^3	The building complies with this clause.

	C2.3	***Large isolated buildings***	
N/A		A fire compartment may exceed that specified in Table C2.2. Buildings under of exceeding 18,000m^2 in floor area to be provided with specific requirements Generally a sprinkler system complying with Specification E1.5 provided with a perimeter vehicular access complying with C2.4 (b) – additional measures may include a smoke exhaust system in accordance with Specification E2.2b or smoke-and-heat vents in accordance with Specification E2.2c.	This clause is not applicable to this project.
N/A		A fire compartment may exceed that specified in Table C2.2, subject to: (a) Buildings does not exceed 18,000m^2 in floor area or 108,000m^3 in volume, being class 7 or 8, not more than 2 storeys and having open space complying with C2.4(a) not less than 18m wide; **or** being of class 5 to 9, sprinklered throughout, and having perimeter vehicle access complying with C2.4(b).	This clause is not applicable to this project.
N/A		(b) Buildings exceeding 18,000m^2 in floor area or 108,000m^3 in volume to be protected throughout with a sprinkler system complying with Specification E1.5, provided with a perimeter vehicular access complying with C2.4 (b) and has a smoke exhaust system in accordance with Specification E2.2b **or** smoke-and-heat vents in accordance with Specification E2.2c (Vents only allowable as an option if less than 12m ceiling height – otherwise exhaust system mandatory). Buildings closer than 6m are regarded as one building and collectively must comply with the above.	This clause is not applicable to this project.
	C2.4	***Requirements for open spaces and vehicular access***	
N/A		Requirements for open spaces and vehicular access capable of supporting emergency vehicles, 6m wide not more than 18m from the building. Part a – 18m wide open space without any buildings or obstructions whatsoever, and must also comply with part b of this section.	This clause is not applicable to this project.
	C2.5	***Class 9a & 9c buildings***	
N/A		Class 9a & 9c Fire Compartmentation and separation requirements	This clause is not applicable to this project.

	C2.6	***Vertical separation of openings in external walls***	
N/A		Only applicable to a building of Type A Construction, that is not sprinkler-protected. – no requirement is applicable for spandrel separation of a Sprinkler protected building. If not Sprinkler protected either 900mm vertical spandrel required, or 1m horizontal projecting spandrel – specific details in this clause of the BCA	This clause is not applicable to this project.
	C2.7	***Separation by fire walls***	
N/A		A part of a building separated by firewall construction may be considered a separate building for the purposes of Parts C, D and E. (Must continue directly from on ground floor slab straight up through the building to top)	This clause is not applicable to this project.
	C2.8	***Separation of classifications in the same storey***	
CR		Firewalls are needed to separate different classifications, or the building must be built to the higher fire resistance level.	
	C2.9	***Separation of classifications in different storeys***	
CA		The separating floors must have an FRL not less than that required for the lower storey use.	The level 1 floor is required to contain a minimum FRL of 180/180/180. Further investigation is current underway to determine any non-compliances, as illustrated within C1.1 of this Report. New works will achieve compliance
	C2.10	***Separation of lift shafts***	
CA		The lift is to be enclosed in a fire-isolated shaft if it connects more than two storeys or three storeys if provided with a sprinkler system.	New works will achieve compliance Existing lifts not subject to works have not been proposed to be upgraded by the applicant.
	C2.11	***Stairs and lift in one shaft***	
✓		Not to be within the same shaft if either is required to be fire isolated.	The building complies with this clause.
	C2.12	***Separation of equipment***	
CA		Equipment comprising lift motors and control plant, emergency generators or central smoke control plant; boilers or batteries are required to be separated from the remainder of the building by construction achieving a FRL of 120/120/120.	New works will achieve compliance Existing not subject to works have not been proposed to be upgraded by the applicant.

	C2.13	***Electricity supply system***	
CA		A substation located within a building or main switchboard, which sustains emergency equipment, must be separated from the remainder of the building by construction achieving a FRL of not less than 120/120/120.	New works will achieve compliance Existing not subject to works have not been proposed to be upgraded by the applicant.
	C2.14	***Public corridors in Class 2 & 3 buildings***	
AS		In a Class 3 building, a public corridor, if more than 40m in length, must be divided at intervals of not more than 40m with smoke-proof walls complying with Cl. 2 of Spec C2.5.	The building does not comply with this clause. The corridors on levels 1, 2 & 3 are approximately 180m in length. It is understood that fire engineering has been proposed to address this issue.

Part C3 – Protection of Openings

Icon	Clause	Reference	Comment
	C3.2	***Protection of opening in external walls***	
AS		Openings in the external walls are to be protected in accordance with C3.4 if:- ☐ less than 3m to side or rear boundary ☐ less than 6m from the far boundary of a road if not located at or near ground level ☐ less than 6m from another building on the same allotment.	A large number of unprotected openings are positioned within 3m of the side and rear boundaries. It is understood that fire engineering has been proposed to address this issue.
	C3.3	***Separation of external walls and associated openings in different fire compartment***	
N/A		External walls of a different fire compartment to be separated by a fire wall of not less than FRL 60/60/60 or any openings must be protected in accordance with Clause C3.4 if within the distance set out in Table C3.3.	This clause is not applicable to this project.
	C3.4	***Acceptable methods of protection***	
Noted		Where exposed to be protected by external or internal drenchers (side of protection specified by relevant clause that calls up protection), fire doors, windows or shutters.	
	C3.5	***Doorways in fire walls***	
N/A		Doorways in a fire wall which are not part of a horizontal exit, must not exceed ½ the length of the fire wall, and: 1. have the FRL required for the fire wall, and 2. be self-closing or automatic-closing.	This clause is not applicable to this project.
	C3.6	***Sliding fire doors***	
N/A		If utilised must fail safe in the closed position, be suitably signposted with an audible alarm, signage and directional arrow to indicate direction to slide door to open when in the closed position.	This clause is not applicable to this project.

	C3.7	***Doorways in horizontal exits***	
N/A		To be suitably protected by fire doors with FRL of not less than that required for the fire wall, and be self-closing or automatic-closing. And must swing in the direction of travel (this may be both ways if so either two doors or a multi directional swing fire door is required)	This clause is not applicable to this project.
	C3.8	***Openings in fire isolated exits***	
✓		To be automatic magnamatic or self closing -/60/30 fire doors.	The building complies with this clause.
	C3.9	***Service penetrations in fire isolated exits***	
CA		Fire exits must not be penetrated by services other than electrical wiring associated with lighting, stair pressurisation or the intercommunication system & hydrant system.	New works will achieve compliance and will be assessed at the CC stage Existing Areas The city end fire isolated passageway in the basement Carpark areas has been penetrated by a large number of prohibited services. The centrally located fire isolated stair has been penetrated by and contains video wiring which is not associated with the fire safety of this stair. A communication receiver was located within a number of the fire-isolated stairs. These receivers do not service the fire egress from the building.
	C3.10	***Openings in fire rated lift shafts***	
CR		❑ Doors to be - /60/ - fire doors to AS1735.11. ❑ Lift indicator panels to be backed by - /60/60 construction if exceeding 35,000mm^2 in area.	New works will achieve compliance Existing lifts not subject to works have not been proposed to be upgraded by the applicant.

	C3.11	***Bounding Construction; Class 2, 3 & 4 buildings***	
CA		Doorways to public bounding corridors are required to be protected; • -/60/30 in Type A construction • Self-closing, tight fitting, solid core door, not less than 35mm thick in Type B or C construction	New works will achieve compliance and will be assessed at the CC stage Staff ancillary area door jambs, opening onto the hotel residential bounding corridors, have not been back filled with mortar contrary to the requirements of AS 1905.1-2005. The majority of the staff ancillary area doors that open onto the hotel residential bounding corridors were not fire doors as required.
	C3.12	***Openings in floors for services***	
CR		To be enclosed in a fire rated shaft with a FRL in accordance with Specification C1.1 or protected by Clause C3.15 of BCA	New works will achieve compliance and will be assessed at the CC stage
	C3.13	***Openings in shafts***	
CR		Openings in ventilating, pipe, garbage or other service shaft to be protected by:- -/60/30 fire doors / hoppers / access panel.	New works will achieve compliance and will be assessed at the CC stage
	C3.15	***Openings for service installations***	
CA / CR		Electrical, plumbing mechanical ventilation shafts etc not to impair the FRL of rated members.	New works will achieve compliance and will be assessed at the CC stage City end fire isolated passageway contains a large number of non-compliant penetrations but is existing and not part of these works which is for the consent authorities assessment.

Specification C1.1 – Fire Resisting Construction

Icon	Clause	Reference	Comment
	3	***Type A Fire Resisting Construction.***	
CA	***1***	***The building is to be designed to comply with Table 3.*** See Appendix 2 of this Report for FRL's applicable to this building.	The building is required to be Type A construction. The FRL's are to comply with Table 3 of Specification C1.1. The existing FRL's have been nominated.

Specification C1.10 – Early Fire Hazard Indices

Icon	Clause	Reference	Comment
	2	***Class 2, 3 and 9 Buildings***	
Noted		Further specific provisions relate to POPE for NSW for closed back seats, screens, curtains, blinds or similar decor.	See C1.10 above for comments.

Specification C1.10a – Fire Hazard Properties – Floors, Walls and Ceilings

Icon	Clause	Reference	Comment
	2	***Floor materials and floor coverings***	
Noted		A floor material or floor covering must have (a) a Critical radiant heat flux not less than that listed in Table 1; and (b) in a building not protected by a sprinkler system complying with specification E1.5, a maximum smoke development rate of 750 percent-minutes.	See C1.10 above for comments.
	3	***Walls and ceilings***	
Noted		A material used as a finish, surface, lining or attachment to a wall or ceiling must be a Group 1, 2 or 3 material used in accordance with Table 2 and for a building not protected by a sprinkler system complying with specification E1.5, have - (i) a smoke growth rate of not more than 100; or (ii) an average specific extinction area less than 250m^2/kg..	See C1.10 above for comments.
	4	***Lift cars***	
Noted		In a lift car, the floor materials and floor coverings must have a Critical radiant heat flux not less than 2.2 and wall and ceiling linings must be a Group 1 or Group 2 material in accordance with Clause 3(b).	See C1.10 above for comments.

SECTION D: ACCESS AND EGRESS

Part D1 – Provision for Escape

Icon	Clause	Reference	Comment
	D1.2	***Number of exits required***	
✓		The number of exits is to be designed to satisfy performance standard DP4 of the BCA. A minimum of one exit is required from all buildings, and Two (2) exits for each storey are required for buildings over 25m, basement storeys or for class 9b of 6 storey or greater, buildings that exceed 50 persons, school buildings, class 9a patient care areas or class 9c sleeping areas, etc.	The building complies with this clause.
	D1.3	***When fire isolated exits are required***	
CR		Every stair in a building must be fire isolated unless it does not connect or pass through more than 3 consecutive floors in a sprinkler protected building or 2 storeys in a non-sprinkler protected building. Class 9a & 9c buildings require stairs to be fire isolated. Those stairs not requiring fire isolating must discharge at a level of road or open space	
	D1.4	***Exit travel distances***	
CA		No point on the floor must be more than 20m to an exit or a point in which travel in different directions to 2 exits is available, in which case, the maximum distance to 1 exit cannot exceed 40m unless we are within the common areas of the residential hotel where no point on the floor must be more than 6m to an exit or a point of choice of travel in two different directions to two different exits.	CA - The existing maintenance workshop in the basement contains excessive travel distances to an exit or point of choice approx 24m to a point of choice as an existing non-compliance
AS		Class 5 or 6 buildings with only one exit, and opening to road or street may have greater distance of up to 30m to that single exit.	AS – the new Roof top pool area has distance to a point of choice of 32m to point of choice, and 38m to the closest exit

		Class 7 Car Park - No point on the floor must be more than 20m to an exit or a point in which travel in different directions to 2 exits is available, in which case, the maximum distance to 1 exit cannot exceed 40m. Class 2 and 3 buildings - (i) The entrance doorway of any sole occupancy unit must be not more than: (A) 6m from an exit or from a point from which travel in different directions to 2 exits is available; or (B) 20m from a single exit serving the storey at the level of egress to a road or open space; and (ii) No point on the floor of a room which is not in a sole occupancy unit must be more than 20m from an exit or from a point at which travel in different directions to 2 exits is available.	
	D1.5	***Distance between alternative exits***	
AS		To be no less than 9m or more than 45m in a Class 3, and 60m in all other classes such as 6, 9b and 7a and be , uniformly distributed with access to 2 exits if required and not converge so they become less than 6m apart.	Travel distances between exits exceed the maximum permissible of 45m and 60m as applicable. It is understood that fire engineering has been proposed to address this issue. – current worst case are • 53m – Residential parts of the Hotel • 85m – BOH areas of the Kitchen on Ground Floor • 65m – Public Areas of the Hotel
	D1.6	***Dimensions of exits and paths of travel***	
CA		(a) height – minimum 2m: doorways 1980mm (b) width 1m minimum (c);(d) Width change based upon populations – generally for populations up to 100 persons require 1m of egress, up to 200 2m and then varies according to use over 200 person per floor / storey. (f) door width minimum 800mm [AS 1428] (g) not to diminish in direction of travel. Note: see also re number of exits for certain uses Clause D1.2 as may require additional exits no matter the population of the storey.	The building contains a large number of existing areas where the minimum permissible path of travel to an exit has been reduced to less than 1000mm due to existing structural constraints and construction New works will achieve compliance and will be assessed at the CC stage, existing areas not subjected to work are not proposed to be upgraded.

	D1.7	***Travel by fire isolated stairs***	
CR **CA**		Must provide independent egress and discharge to road or open space or complying covered area.	CR - The porter door is not fire isolated to -/60/30 as the discharge from the fire-isolated exits requires traversing past this opening within 6m. CA - The city end fire isolated passageway contains a number of doors opening into to it and is not provided with air pressurisation in accordance with AS/NZS 1668.1-1998.
	D1.8	***External stairs or ramps in lieu of fire isolated exits***	
N/A		External stairs or ramps may be used in lieu of a fire-isolated stair or ramp to a building under 25m in effective height.	This clause is not applicable to this project.
	D1.9	***Travel by non fire isolated stairs***	
AS		Travel by Non-Fire Isolated Stairs:- (c) The distance from any point on the floor to a point of egress not to exceed 80m. (e) The stairway not to discharge at a point more than: (i) 20m to an exit (ii) 40m to one of 2 exits.	The Stair serving the roof are discharging at level 3 which is not a level of road or open space – as such is a non-compliance to be addressed by the Fire Engineer
	D1.10	***Discharge from exits***	
Noted		An exit must not be blocked nor be capable of being blocked at its point of discharge. Ramp to a grade of 1:8 is required to connect with open space.	
	D1.11	***Horizontal exits***	
N/A		May be counted as required exits if the path of travel from a fire compartment leads by one or more horizontal exits directly into another fire compartments which has at least one required exit which is not a horizontal exit. Cannot be utilised in some classes or areas of buildings details to be assessed to ensure compliance with specific clause	This clause is not applicable to this project.

	D1.12	***Non required stairs***	
✓		May connect 2 levels in a non-sprinkler protected building. Within a sprinkler protected building may serve 3 storeys.	The building complies with this clause.
	D1.13	***Number of persons accommodated***	
Noted		To be in accordance with Table D1.13 of the BCA or count seats.	Compliant exit widths have been provided when due consideration is given to Table D1.13. Sanitary facilities have been assessed based on quantities of persons accommodated as supplied by the client and are compliant.
	D1.16	***Plant rooms and lift motor rooms: Concessions***	
N/A		(a) Where a plant room or lift motor room has a floor area: (i) Not more than 100m^2 a ladder may be used in lieu of a stairway. (i) More than 100m^2 but less than 200m^2 where two or more points of egress are provided a ladder may be used in lieu of a stairway from all but one of those points. (c) A ladder to the plant room is to comply with AS 1657 and the ladder to the lift motor room is to comply with AS 1735.2.	This clause is not applicable to this project.

Part D2 – Construction of Exits

Icon	Clause	Reference	Comment
	D2.2	***Fire isolated stairs***	
AS / CR		Must be in a fire resisting shaft and be constructed of non-combustible materials and if there is local failure not cause structural damage or impair the fire resistance of the shaft.	The FRL's are to comply with Table 3 of Specification C1.1. The required and existing FRL's have been nominated. New works will achieve compliance and will be assessed at the CC stage
AS			The non-fire rated extension to the fire stair to the roof from the Spa area is proposed to be partially constructed with drenched glazing and a sliding fire door – this is not compliant to the DTS provisions and has been advised to be looked at by the fire safety engineer.
	D2.3	***Non fire isolated stairs***	

CR	Non fire isolated stairways must be constructed of either:- (a) reinforced or pre stressed concrete (b) 6mm thick steel (c) 44mm thick timber	New works will achieve compliance and will be assessed at the CC stage

	D2.4	***Separation of rising and descending stairs flights***	
✓		A required fire isolated stair cannot connect above and below ground flights unless separated by fire and smoke separation.	The building complies with this clause.
	D2.5	***Open access ramps and balconies***	
N/A		Open access ramp or balcony is provided to meet the requirements of smoke hazard management E2.2a, it must; 1. have ventilation openings to the outside air; & 2. not be enclosed on its open sides above height of 1m.	This clause is not applicable to this project.
	D2.6	***Smoke lobbies***	
N/A		Smoke lobby required by D1.7 must; 1. have a floor area not less than 6sqm; and 2. be separated by walls impervious to smoke; and 3. be fitted with smoke doors; and 4. be pressurised if the exit is required to be.	This clause is not applicable to this project at this stage.
	D2.7	***Installations in exits and paths of travel***	
CA		(b) No openings to ducts conveying hot products of combustion permitted. (c) Gas or fuel services not permitted in required exits. (d) Electric or services equipment not permitted unless in a non-combustible and smoke sealed enclosure.	The central fire-isolated stairs contains video wiring which is not permitted as this wiring is not associated with the actual exit.
	D2.8	***Enclosure of space beneath stairs***	
CR		(a) in a fire stair no cupboards are permitted under the stair (b) the space beneath the non-fire isolated stairs are not to be enclosed unless in 60/60/60 construction with 60/60/30 fire doors.	New works will be assessed at CC stage to ensure compliance.
	D2.9	***Width of stairs***	
✓		When a measurement taken the width is to be measured clear of all obstructions and the stair must extend a minimum 2.0m above nosings. (unless specified elsewhere to require a greater height)	The building complies with this clause.
	D2.10	***Pedestrian ramps***	
N/A		Pedestrian ramp to be installed in accordance with AS 1428.1, and not have a gradient steeper than 1:8, and be finished with a non-slip surface.	This clause is not applicable to this project.
	D2.11	***Fire-isolated passageways***	
CA		To attain the same FRL as the fire isolated stair	New works will achieve compliance and will be assessed at the CC stage

	D2.12	***Roof as open space***	
N/A		If an exit discharges to a roof of a building, the roof must; 1. have an FRL 120/120/120; & 2. not have roof lights or other openings within 3m of the path of travel.	This clause is not applicable to this project.
	D2.13	***Treads and risers***	
CA		(a) minimum 2 risers / maximum 18 in each flight (b) risers 115mm min 190 mm max - going 250mm min 355mm max - 2R+G 550mm min 700mm max. (c) goings and risers to be constant. (d) risers not to permit 125mm sphere to pass through (e) treads to be non slip (h) no stepped quarter landings	A number of steps did not contain compliant risers and goings, for example: • External steps to sprinkler valve room, 240mm in going, greater than 190mm in some areas and inconsistent throughout. • External steps to the south end of the restaurant, riser heights vary, less than 115mm. • External steps to Harbour side from lobby, varying dimensions, no non-slip colour contrasting nosings. • No colour contrasting or slip resistant nosings to the internal spa and gym stairs. New works will achieve compliance and will be assessed at the CC stage
	D2.14	***Landings***	
✓		Maximum gradient not to exceed 1:50 and be a minimum 750 long measured from the inside edge of the landing.	The building complies with this clause.

	D2.15	***Thresholds***	
CA		No step or ramp at any point closer to the door than the width of the door leaf. Generally doors opening to outside are able to be provided with a maximum 190mm step	There were a number of areas throughout the building which contained doorways which incorporated thresholds and steps within the width of the door to either side. These areas were as follows: • The northern end basement fire-isolated passageway entry stair adjacent the vehicle entry. • The eastern end basement exit stair leading to the Harbour side. • The northern end basement plant room entry. • The butlers store.
	D2.16	***Balustrades***	
CR **CA**		A continuous balustrade or barrier must be provided along the side of any roof to which public access is provided, any stairway or ramp, any floor, corridor, hallway, balcony, veranda, mezzanine, access bridge or the like and along any side of any access path to a building if it is not bounded by a wall and the level above the floor or ground surface is more than 4m where it is possible to fall through an open window or 1m in any other case. **Note**: Frameless glass balustrades are no longer a feasible option to achieve compliance with the BCA – see AS 1288-2006 for details of balustrade to ensure design achieves compliance.	New works will achieve compliance and will be assessed at the CC stage Existing balustrades not part of these works have not been proposed to be upgraded by the applicant as part of these works
	D2.17	***Handrails***	
CR **CA**		Required along one side and on both sides of stairs over 2m in width, 865mm above nosings and be continuous.	New works will achieve compliance and will be assessed at the CC stage Existing area Handrails are not all compliant and as they are not being undertaken by these works are not proposed to be upgraded by the applicant

	D2.18	***Fixed platforms, walkways, stairways and ladders***	
✓		Treads, risers, handrails and balustrades in plant rooms etc must comply with AS 1657	The building complies with this clause.
	D2.19	***Doorways and doors***	
✓		Must not be revolving door, roller shutter or tilt door. Can be fitted with a sliding door if it leads directly to open space and can be opened manually under a force of not more than 110N and be fitted with a fail-safe device if the door is power operated. Class 9b POPE has specific details relating to exit doors, sliding doors and the swing of doors anywhere in the building.	The building complies with this clause.
	D2.20	***Swinging doors***	
✓		Must not encroach more than 500mm into the required width of the stair or 100mm when fully open and swing in the direction of travel. Note: smoke doors must swing in the direction of egress	The building complies with this clause.
	D2.21	***Operation of latch***	
CA **CR**		To be located 900mm to 1100mm above the floor and be openable with a single-handed downward action. Fail safe unlock is permitted as long as linked to the base building fire alarm system. Class 9b doors if to be secured must be provided with panic bars only (fail safe option does not comply)	A large number of existing doors in the path of travel to exits are provided with round handles as per Ord 70 requirements, whilst the BCA requires downward lever action type. New works will achieve compliance but the existing not part of these works are not proposed to be upgraded by the applicant
	D2.22	***Re-entry from fire-isolated exits***	
N/A		Every door in a fire stair must not be locked from inside the fire- isolated stairway to prevent re-entry to the storey or room it services for any stair that serves a storey over 25m in height. Specific details of compliance are defined in this clause of the BCA – the doors all must unlock on fire trip, if needed to be locked may be provided with alarm to allow re entry in a non-fire situation	This clause is not applicable to this project.
	D2.23	***Signs on doors***	
CR		To fire doors signage required to alert persons that blockage, obstruction or being chocked open is not allowable	New works will achieve compliance and will be assessed at the CC stage

Part D3 – Access for People with Disabilities

Icon	Clause	Reference	Comment
	D3.2	***Access to building in general***	
		a) From the boundary to main points of entry b) From a disabled car space c) Other buildings on the allotment d) Through the principal public entrance. Access to and within the building must comply with AS 1428.1 and Part D3 of the BCA.	Access Consultant to confirm compliance
	D3.3	***Parts to be accessible***	
CR		a) (i) (A) To sanitary compartment: (B) To areas normally used by occupants (excluding plant and service areas) (iii) Every lift to comply with E3.6.	Access Consultant to confirm compliance
	D3.4	***Concessions***	
CR		It is not necessary to provide access for people with disabilities to: a) more than 30% of the public space in Class 6 restaurant, café, bar b) any area if access would be inappropriate due to use.	Access Consultant to confirm compliance
	D3.5	***Car parking***	
CR		Spaces provided as to AS 2890.1 Disabled car spaces must be provided within the carpark at the ratio of 1 disabled car space per 50 /100 spaces.	Access Consultant to confirm compliance Valet parking is provided for the public
	D3.6	***Signage regarding disabled access***	
CR		To be provided at entrance, lifts and sanitary accommodation.	Access Consultant to confirm compliance
	D3.7	***Hearing augmentation***	
CR		Where an inbuilt amplification system other than an EWIS is provided a hearing augmentation system is to be provided in the following locations:- • Conference room with a floor area greater than 100m^2, • Judicatory room, • Auditorium in a Class 9b building, • Ticket office, reception area where the public is screened from the service provider.	Access Consultant to confirm compliance requirements
	D3.8	***Tactile indicators***	
CR		Required to public stairs and ramps in accordance with AS 1428.4.	Access Consultant to confirm compliance

SECTION E: SERVICES AND EQUIPMENT

Part E1 – Fire Fighting Equipment

Icon	Clause	Reference	Comment
	E1.3	***Hydrants***	
CA		a) System to be provided to serve whole building:- (i) Floor area exceeds 500m^2 b) (i) Installed to AS 2419.1-2005 (iii) Pump set to AS 2419.1.	The internal hydrants are not installed with the fire isolated stairs as required by BCA, however Ord 70 allowed this at the time of construction. The fire hydrant booster assembly is located greater than 8m from the main road fire brigade vehicle hardstand and is not within sight from the main building entry. Compliant hydrant coverage is required to been confirmed by the hydraulic fire services engineer and fire engineer. It is understood that a new fire hydrant pump is to be installed. New works will achieve compliance and will be assessed at the CC stage, but the existing non-compliances are to be assessed by the CA to determine if an upgrade is required
	E1.4	***Hose reels***	
AS **CR**		a) System to be provided to serve whole building:- (i) Where hydrants installed internally or to serve any fire compartment greater than 500m^2: b) (i) Installed to AS 2441-2005 (iii) Hose to reach every part (iv) (A) Located externally or, (B) Within 4m of exit or, (C) Adjacent to hydrant (not within fire isolated exit).	A number of fire hose reels were located greater than 4m from a required exit. A large number of fire hose reel drums did not contain the minimum required clearance of 100mm. It is understood that a combination of rectification works and fire engineering has been proposed to address this issue. The hydraulic fire consultant is to confirm that coverage is compliant to areas of the building .

	E1.5	***Sprinklers***	
CA		System may be required to be provided to serve the entire building to AS 2118.1 and Spec E1.5 as applicable, see Table E1.5 for details when required	No required sprinklers have been provided to the main entry Porte Cochére. It is understood that the fire sprinkler pump is to be replaced and compliance will be achieved for the pressures and flows The fire sprinkler booster assembly is located greater than 8m from the main road fire brigade vehicle hardstand and is not within sight from the main building entry.
	E1.6	***Portable fire extinguishers***	
✓		To be installed to Table E1.6 and AS 2444.	New works will achieve compliance and will be assessed at the CC stage
	E1.8	***Fire control centres***	
N/A		A fire control centre facility is required for a building that exceeds 18,000m^2 in total floor space or where the building exceeds 25m effective height. A Building that exceeds 50m in height is required to be provided with a dedicated fire control room that complies with Spec E1.8	This clause is not applicable to this project and the deemed-to-satisfy provisions of the BCA do not require a fire control centre facility.

Part E2 – Smoke Hazard Management

Icon	Clause	Reference	Comment
	E2.2	***General requirements***	
CR	***E2.2a***	This building requires the following smoke hazard management in accordance with this provision: Automatic smoke detection and alarm system to Spec E2.2a and AS 1670.1-2004. It is also noted that the automatic sprinkler system is to be upgraded to comply with Spec E1.5 & AS 2118.1-1999.	It is understood that a new smoke detection system complying with this provision and AS 1670.1-2004, as required is to be provided It is assumed that the air handling systems that do not form part of a smoke hazard management system will be upgraded to shut down on activation of the fire detection or sprinkler operation
N/A	***E2.2b***	All Class 9b Buildings are required to be provided with automatic shutdown of mechanical ventilation	This clause is not applicable to this project. As Class 9b not applicable
	E2.3	***Provision for special hazards***	
N/A		Additional smoke hazard management measures may be necessary due to the: a) Special characteristics of the building	This clause is not applicable to this project.

Part E3 – Lift Installations

Icon	Clause	Reference	Comment
	E3.2	***Stretcher facility in lifts***	
CR		(a) Must be provided with: (i) at least 1 emergency lift required by E3.4 (ii) where emergency lift is not required, in at least 1 passenger lift in buildings over 12m. (b) Not less than 600mm wide and 2,000mm long x 1,400mm height.	To be assessment by a specialist lift consultant is required at the CC stage
	E3.3	***Warning against use of lift in fire***	
✔		Warning signs are required at each lift landing located near every call button in accordance with Figure E3.3.	The building complies with this clause.
	E3.4	***Emergency lifts***	
N/A		Required to buildings over 25m in effective height, complying with AS 1735.2.	This clause is not applicable to this project.
	E3.6	***Facilities for people with disabilities***	
CR		Where required by D3.3 (a) every lift must be installed to meet requirements of AS 1735.2 and AS 1735.12.	New works will achieve compliance and will be assessed at the CC stage
	E3.7	***Fire service controls***	
CR		All passenger lift cars require fire service controls in accordance with AS 1735.2	New works will achieve compliance and will be assessed at the CC stage

Part E4 – Emergency Lighting, Exit and Warning Systems

Icon	Clause	Reference	Comment
	E4.2	***Emergency lighting***	
CR		Required in every path of travel to an exit and any room having a floor area more than 100m^2 that does not open to a corridor or space with emergency lighting and any room having a floor area in excess of 300m^2 required in every required non fire isolated stair. Emergency signage to be installed to AS 2293.1	The emergency lighting throughout the building was generally sufficient however addition lighting will be required in order to achieve compliance with current Standards. New works will achieve compliance and will be assessed at the CC stage
	E4.3	***Measurement of distance***	
Noted		Distances other than vertical rise must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.	This clause is for information.
	E4.4	***Design and operation of exit signs***	
Noted		Every required exit sign must comply with AS 2293.1	This clause is for information.
	E4.5	***Exit signage***	
CR		Required above egress doors and doors from an enclosed stair to open space. Directorial signs required to designate paths of travel. Exit signage to be installed to AS 2293.1	Generally speaking the design of the illuminated exit signage was sufficient with only a few non-compliances noted. New works will achieve compliance and will be assessed at the CC stage
	E4.6	***Direction signs***	
CR		Where an exit is not apparent, exit signs with directional arrows are required. Class 9b POPE must have exit signs external to the building to show the way to the road if not apparent when in the open space.	Generally speaking the design of the illuminated exit signage was sufficient with only a few non-compliances noted. New works will achieve compliance and will be assessed at the CC stage
	E4.7	***Class 2, 3 and 4 parts: Exemptions***	
Noted		E4.5 does not apply to- 1. Class 2 building if the word "EXIT" is placed on the side of door remote from an exit, 2. An entrance door of a SOU in Class 2, 3 or 4.	This clause is for information.
	E4.8	***Design and operation of exit signs***	
CR		Every required exit sign must - (a) Comply with AS 2293.1; and (b) Be clearly visible at all times when the building is occupied.	New works will achieve compliance and will be assessed at the CC stage

	E4.9	***Sound system and intercom systems for emergency purposes***	
CR		EWIS required to comply with AS 1670.4-2004; 1. Class 9b used as a school with RIS of more than 3, or public Hall/POPE with floor area over 1000m2 or RIS of more than 2.	The proposed works are to be relocating and provision of EWIS to the base building requirements of AS 2220 as advised by the dry fire consultant, no upgrade to the current standard has been proposed by the applicant.

SECTION F: HEALTH AND AMENITY

Part F1 – General

Icon	Clause	Reference	Comment
	F1.1	***Stormwater Drainage***	
CR		Stormwater drainage must comply to AS 3500.3.2	New works will achieve compliance and will be assessed at the CC stage
	F1.5	***Roof Covering***	
CR		Roof covering must comply with required Australian Standard.	New works will achieve compliance and will be assessed at the CC stage
	F1.6	***Sarking***	
CR		Sarking used for weather proofing of roofs must comply with AS/NZS 4200.	New works will achieve compliance and will be assessed at the CC stage.
	F1.7	***Water Proofing of Wet Areas in Buildings***	
CR		Water proofing of wet areas within a building to comply with AS 3740.	New works will achieve compliance and will be assessed at the CC stage
	F1.9	***Damp-proofing***	
CR		Damp-proofing where required to be installed in accordance with AS/NZS 2904 or AS 3660.1	New works will achieve compliance and will be assessed at the CC stage
	F1.10	***Damp-proofing of Floors on the Ground***	
N/A		Damp-proofing where required to be installed in accordance with AS 2870	This clause is not applicable to this assessment as no new ground floors are proposed.
	F1.11	***Provision of Floor Wastes***	
CR		In a Class 2, 3 or 4 part of a building, the floor of each bathroom and laundry located at any level above a sole-occupancy unit or public space must be graded to drain to a floor waste.	New works will achieve compliance and will be assessed at the CC stage
	F1.12	***Sub-floor Ventilation***	
N/A		The sub-floor space between a suspended floor of a building and the ground must be in accordance with the requirements of this clause.	This clause is not applicable to this assessment as no new ground floors are proposed.

Part F2 – Sanitary and Other Facilities

Icon	Clause	Reference	Comment
	F2.1	***Facilities in residential buildings***	
N/A		Minimum facilities required in **Class 2** buildings: Within each sole occupancy unit- (a) a kitchen sink and facilities for the preparation and cooking of food; and (b) a bath or shower; and (c) a closet pan and washbasin.	This clause is not applicable to this project.
N/A		Laundry facilities, either- (a) in each sole occupancy unit (i) clothes washing facilities, comprising at least one washtub and space for a washing machine; and (ii) clothes drying facilities comprising: (A) clothes line or hoist with not less than 7.5m of line; or (B) space for one heat-operated drying cabinet or appliance in the same room as the clothes washing facilities.	This clause is not applicable to this project.
N/A		**Facilities for employees-** If the building contains more than 10 sole occupancy units, or a group of Class 2 buildings on the one allotment contains, in total, more than 10 sole occupancy units – a closet pan and washbasin in a compartment or room at or near ground level and accessible to employees without entering a sole occupancy unit.	This clause is not applicable to this project.
	F2.1/3	***Sanitary facilities in Class 3-9 buildings***	
✔		The number of sanitary facilities must be based upon the number of person accommodated calculated in accordance with D1.13 or information supplied by the client in relation to the actual numbers of persons accommodating. See Table F2.3 for details of number of toilets, washbasins and Urinals required.	Information relating to the staff and restaurant numbers demonstrates that the proposed toilet facilities are adequate to cater for the proposed population

Icon	Clause	Reference	Comment
	F2.4	***Facilities for persons with disabilities***	
CR		One wheelchair accessible disabled facility is required within the building. Layout of each facility must comply with AS 1428.1. If more than one facility proposed they must be alternative layouts for left or right handed usage. Doors to disabled toilets are required to be provided with Lift off hinges to the doors irrespective of size, and must be provided with a shelf	New works will achieve compliance and will be assessed at the CC stage Access Consultant to confirm compliance
	F2.5	***Construction of sanitary compartments***	
Noted		Where clear space between closet pan and doorway is less than 1.2m, doors must open outwards, slide or be readily removable from outside. Doors to disabled toilets are required to be provided with Lift off hinges to the doors irrespective of distance between pan and doorway	New works will achieve compliance and will be assessed at the CC stage

Part F3 – Room Sizes

Icon	Clause	Reference	Comment
	F3.1	***Height of Rooms***	
CA		Room heights to be a minimum of 2.4m and 2.1m in corridors. Class 9b POPE requires ceiling heights of 2.7m if more than 100 persons in the storey or area	There a few minor areas within the basement Carpark which are less than 2.1m New works will achieve compliance and will be assessed at the CC stage

Part F4 – Provision of Natural Light

Icon	Clause	Reference	Comment
	F4.1	***Provision of Natural Light***	
✓		Class 3 - to all bedrooms at no less than 105 the floor area of the rooms.	Adequate natural lighting has been provided to all bedrooms within the hotel.
	F4.4	***Artificial Lighting***	
CR		Required to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. Artificial lighting system is to comply with AS 1680.0 **Note**: See also Section J for details of energy efficiency of lighting required.	New Artificial lighting throughout the building is advised as being provided to comply with the provisions of AS/NZS 1680.0-1998.
	F4.5	***Ventilation of Rooms***	
CR		A mechanical ventilation or air conditioning system complying with AS 1668.2 is required. **Note**: See also Section J for details of energy efficiency of Ventilation / Mechanical Ventilation/Air-conditioning required.	The habitable hotel rooms appeared to contain adequate natural ventilation in accordance with the requirements of Clause F4.5 and F4.6. Regardless, mechanical ventilation is proposed to be provided to all hotel rooms. The mechanical ventilation system is required to be in accordance with AS 1668.2-1991. Confirmation from the mechanical engineer is required at the CC stage
	F4.11	***Car Parks***	
CA		Every storey of a car park, except an open deck car park, must have a system of ventilation complying with AS/NZS 1668.1 and AS/NZS 1668.2.	Existing system performance is unknown, however no change is proposed so this is not part of the upgrade works by the applicant

Part F5 – Sound Transmission and Insulation – Residential Facilities only

Icon	Clause	Reference	Comment
	F5.3	***Sound Insulation of floors between units***	
CR		A floor separating sole occupancy units must have an R_W (sound reduction index) not less than 45.	New works will achieve compliance. Existing parts of the building not being removed/replaced are not proposed to be upgrade by the applicant
	F5.4	***Sound Insulation of walls between units***	
CR		A wall must have an R_W not less than 45 if it separates: (a) sole occupancy units; or (b) a sole occupancy unit from a plant room, lift shaft, stairway, public corridor, hallway or the like.	New works will achieve compliance. Existing parts of the building not being removed/replaced are not proposed to be upgrade by the applicant
	F5.5	***Walls between a bathroom, sanitary compartment, laundry or kitchen and a habitable room in adjoining unit***	
CR		Walls must have: (i) an R_W of not less than 50; and (ii) provide a satisfactory level of insulation against impact sound; and (iii) not incorporate a duct which reduces the R_W of the wall to less than 50.	New works will achieve compliance. Existing parts of the building not being removed/replaced are not proposed to be upgrade by the applicant

Section J: Energy Efficiency

Part J1 to J8 – Building Fabric

Icon	Clause	Reference	Comment
	J1.1	***Application of Part***	
CA		This part apply to building elements forming an envelope of a Class 2 to 9 building other than – Class 7, 8 or 9b building that does not have a conditioned space or an atrium that is separated by an envelope.	New works are proposed to achieve compliance by the applicant Existing areas are not proposed to be upgraded
	J1.2	***Thermal Construction General***	
CA		Where required, *insulation* must comply with AS/NZS 4859.1 and be installed so that it: • Abuts or overlaps adjoining insulation and forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that contribute to the thermal barrier;	New works are proposed to achieve compliance by the applicant Existing areas are not proposed to be upgraded
		Where required, *reflective insulation* must be installed: • With the required air space to achieve the R-Value between the reflective side and the cladding. Closely fitted against penetrations, door or window openings and supported by framing members. Each sheet overlapped not less than 50mm or taped together;	
		Where required, *bulk insulation* must be installed: • Maintain its thickness, other than where it crosses roof batten, water pipes, electrical cabling and the like; and in ceiling where there is no bulk insulation or reflective insulation in the wall, overlaps by 50mm	
	J1.3	***Roof and Ceiling Construction***	
CA		A roof or ceiling in Climate Zone 5 is to achieve a Total R-Value in the UPWARD direction of heat flow of not less than: • 3.2 – for a roof or ceiling generally	New works are proposed to achieve compliance by the applicant Existing areas are not proposed to be upgraded

	J1.4	***Roof Lights***	
CA		Roof lights that form part of the envelope of a Class 5, 6, 7, 8 or 9 building must satisfy: (a) If the area of the roof light is between 1.5%-10% of the floor area of the room they must comply with **Table J1.4.** (b) roof light may exceed 10% of the floor area of the room, where - compliance with the natural lighting requirements of Part F4 can only be achieved by the roof light; and the transparent and translucent elements, achieve: - an SHGC not more than 0.25; and - total U-Value of not more than 1.3.	New works are proposed to achieve compliance by the applicant Existing areas are not proposed to be upgraded
	J1.5	***Walls***	
CA		External walls within Climate Zone 5 achieve: • A Total R-Value of 2.8	New works are proposed to achieve compliance by the applicant Existing areas are not proposed to be upgraded
	J1.6	***Floors***	
N/A		A suspended floor that is part of a buildings envelope to comply with Specification J1.6	N/A

Part J2 – External Glazing

Icon	Clause	Reference	Comment
	J2.1	***Application of Part***	
CA		This part of the BCA does not apply to a Class 7, 8 or 9b building that does not have a conditioned space.	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded
	J2.2	***Applicable glazing provisions***	
		Glazing in a Class 5, 7, 8, 9a and 9b building must be designed and installed in accordance with Clause J2.4 of the BCA.	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

Part J3 – Building Sealing

Icon	Clause	Reference	Comment
	J3.1	***Application of Part***	
CA		Applies to elements forming the envelope of a class 2-9 building (doors, windows, walls, roof/ceilings etc). Except for buildings in climate 1,2,3 or 5 where the only means of cooling is by an evaporative cooler or A permanent building ventilation opening for safe operation of a gas appliance A class 6, 7, 8 or 9b building that does not have a conditioned space A building or space where the mechanical ventilation provides sufficient pressurisation to prevent infiltration	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded
	J3.2,3,5	***Chimneys, Roof lights, exhaust fans***	
CA		Chimneys or flues must be provided with a damper or flap that can be closed to seals the chimney or flu when not in use Roof lights must be sealed by a diffuser or shutter system unless required as a building window for light Miscellaneous Exhaust fans must be provided with a damper that self closes when the fan is not in use	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded
	J3.4	***External Windows and Doors***	
CA		A seal to restrict air infiltration must be fitted to each edge (top, bottom and sides) of an external door or window or the like when serving a conditioned space or for habitable rooms in climate zones 4,6,7 & 8. Excluding: - Windows that comply with AS 2047 - fire doors Roller shutter doors or security doors installed for out of hours security only External louver door, windows or other such openings	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

Part J5 – Air Condition & Ventilation Systems

Icon	Clause	Reference	Comment
	Part J5	***Air Con and Mech Vent system design***	
CA		Ductwork for supply and return air must be insulated Design of the system must achieve com0pliance with all parts of Part J5 of the BCA	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

Part J6 – Artificial Lighting & Power

Icon	Clause	Reference	Comment
	J6.1	***Application of part***	
		This part of the BCA does not apply to a Class 2 or 4 buildings or parts within the Sole occupancy unit/s.	
	J6.2	***Interior artificial lighting***	
CA		The Design Illumination power load must not exceed the sum of the allowances achieved by multiplying the area of the space by the maximum illumination power density in Table J6.2b • Hotel Rooms – 5w/m2 • Restaurant/Café/Bar etc – 18W/m2 • Office – 9 W/m2 • Lounge Area of Class 3 communal areas – 10W/m2 • Entry Lobby – 15W/m2 • Kitchen and Food Prep area – 8W/m2	New works are proposed to achieve compliance by the applicant – Sect J analysis by Electrical Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

	J6.5	***Artificial lighting around the perimeter of a building***	
CA		Exterior lighting must be controlled by either a daylight sensor or a time switch in accordance with Spec J6 to turn off when natural light is effective or during daylight hours and Total perimeter lighting load that exceeds 100w must – - have an average light source efficacy of not less than 60 lumens/W or - be controlled by a motion detector in accordance with Spec J6	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded
	J6.6	***Boiling water and chilled water units***	
CA		Power supply to these units (Billy units) must be controlled by a time switch that complies with Spec J6	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

Part J7 – Hot Water Supply

Icon	Clause	Reference	Comment
	J7.2	***Hot Water Supply***	
CA		Hot water supply for food preparation and sanitary purposes must comply with Section 8 of AS/NZS 3500.4 Solar systems in climate zones 1,2 and 3 do not need to comply with this requirement	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

Part J8 – Access for Maintenance

Icon	Clause	Reference	Comment
CA		Access for Maintenance must be provided to all services and components, including • Time switches and motion detectors • Room temp thermostats • Plant thermostats such as on boilers or refridge units • Outside air dampers • Reflectors, lens and diffusers of light fittings • Heat transfer equipment • Adjustable or motorised shading devices	New works are proposed to achieve compliance by the applicant – Sect J analysis by Energy Consultant is proposed to be obtained at CC stage Existing areas are not proposed to be upgraded

Appendix 2

Fire Resistance Provisions

Table 3 – Type A Construction: FRL of Building Elements

Building Element	**Class of Building – FRL** (in minutes) **Structural Adequacy/Integrity/Insulation**			
	Class 2, 3 or 4 part	**Class 5, 9 or 7 (car park)**	**Class 6**	**Class 7 (other than carpark) or 8**
External Wall (including any column and other building element incorporated therein) or other external building element, where the distance from and fire-source feature to which it is exposed is:				
For Loadbearing Parts:				
Less than 1.5m	90/90/60	120/120/120	180/180/180	240/240/240
1.5m to less than 3m	90/60/60	120/90/90	180/180/120	240/240/180
3m or more	90/60/30	120/60/30	180/120/90	240/180/90
For Non-Loadbearing Parts:				
less than 1.5m	- /90/90	- /120/120	-/180/180	-/240/240
1.5m to less than 3m	- /60/60	- /90/90	-/180/120	-/240/180
3m or more	- / - / -	- / - / -	-/-/-	-/-/-
External Column not incorporated in an external wall, where the distance from any fire source feature to which it is exposed is:				
Less than 3m	90/-/-	120/-/-	180/-/-	240/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
Common Walls and Fire Walls:				
	90/90/90	120/120/120	180/180/180	240/240/240
Internal Walls – Fire Resisting lift and stair shafts:				
Loadbearing	90/90/90	120/120/120	180/120/120	240/120/120
Non-Loadbearing	- /90/90	- /120/120	-/120/120	-/120/120
Bounding ***Public Corridors*** public lobbies and the like:				
Loadbearing	90/90/90	120/ - / -	180/ - / -	240/-/-
Non-Loadbearing	- /60/60	- / - / -	- / - / -	- / - / -
Between or Bounding ***Sole Occupancy Units***:				
Loadbearing	90/90/90	120/ - / -	180/ - / -	240/-/-
Non-Loadbearing	- /60/60	- / - / -	- / - / -	- / - / -
`Ventilating, pipe, garbage and like ***shafts*** not used for the discharge of hot products of combustion:				
Loadbearing	90/90/90	120/90/90	180/120/120	240/120/120
Non-Loadbearing	- /90/90	- /90/90	- /120/120	- /120/120
Other Loadbearing Internal Walls, Internal Beams, Trusses and Columns:				
	90/ - / -	120/ - / -	180/-/-	240/-/-
Floors:	90/90/90	120/120/120	180/180/180	240/240/240
Roofs:	90/60/30	120/60/30	180/60/30	240/90/60

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