



A Bureau Veritas Group Company

McKenzie Group Consulting (NSW) Pty Ltd

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CONSTRUCTION CERTIFICATE No. 20/123767-6

Issued under the Environmental Planning and Assessment Act 1979 Sections 6.4 and 6.7

Owner

Name: Sydney Harbour Foreshore Authority
Address: Level 6, 66 Harrington Street, THE ROCKS NSW 2000

Property details

Address	31 Wheat Road, Darling Harbour NSW 2000		
Lot/Portion No:	401, 402, 403, 404 & 405	800, 801 & 805	2, 4 & 9
DP No:	862501	1164281	1048307
Lot/Portion No:	60, 64 & 65	11	210 & 217
DP No:	1009964	1125890	1130038
Lot/Portion No:	8	1010	
DP No:	1048307	1147364	
Municipality:	City of Sydney Council		

Description and value of development

Description: Fit out and operation of hotel and serviced apartments including:

- 450 hotel rooms
- 143 serviced apartments
- Lobby and reception at Ground and Level 1
- Guest facilities at Level 2
- Food and drink area at Level 3
- Function and conference facilities at Level 4
- Pool areas at Level 16 and 22
- Bar and kitchen at Level 22 and 23
- Common facilities in hallways and common areas at each floor

Value of work: \$83,236,640.00

Building Code of Australia building classification

Part: Whole of works being: Tiles, paint, carpet, wallpaper & loose furniture
Use: Hotel, Retail & Assembly
BCA classification: 3, 6 & 9b

Determination

Approved/Refused: **Approved**
Date of Determination: **29 April 2020**

Plans and specifications approved

- MGC Approved Plans Prepared by Ridley numbered: ARC-RID- 1100-00[X], ARC-RID- 1101-00[AB], ARC-RID- 1102-00[V], ARC-RID-1103-00[J], ARC-RID-1105-00[U], ARC-RID-1110-00[U], ARC-RID-1112-00[R], ARC-RID- 1115-00[N], ARC-RID-1117-00[Q], ARC-RID-1119-00[Q], ARC-RID-1121-00[P], ARC-RID-1123-00[L], ARC-RID-1126-00[J], ARC-RID-1128-00[Q], ARC-RID-1130-00[K]

Attachments

1. Fire safety schedule.
2. Conditions of approval
3. Application form for Construction Certificate.
4. Record of Site Inspection made by Accredited Certifier in accordance with Clause 143B (EP&A Regulations 2000) prior to issue of Construction Certificate.
5. Design Statement of Compliance for Hotel Fitout Condition B16 prepared by EFWF Consulting Engineers dated 14 November 2019
6. Report for Noise Impact Assessment prepared by Acoustic Logic dated 8 July 2016
7. Letter regarding The Ribbon Imax Theatre Independent Auditor prepared by NSW Planning Industry & Environment dated 15 November 2019
8. Report for Operation Waste Management Plan prepared by The Aquis Group dated March 2019
9. Notice of Anticipated Requirements prepared by Sydney Water dated 15 June 2016
10. Email Correspondence regarding Condition C11 prepared by Grocon dated 20 November 2019
11. Permit Number for Hoarding prepared by Sydney Harbour Foreshore Authority dated 21 October 2016
12. Letter regarding Construction Certificate Fitout DA8838 prepared by Grocon Constructions (NSW) Pty Limited dated 14 November 2019
13. Plans for Hydraulic Services Works prepared by Ridley numbered: HYD-B&W-SHD-1022-01[C], HYD-B&W-SHD-1022-02[C] and HYD-B&W-SHD-1029-01[A]
14. Plans for Grocon Works prepared by Total Hoardings Pty Ltd numbered: SK01[02], SK03[02] and SK04[02]
15. Plans for Haul Road Coordination prepared by Ridley numbered: ARC-RID-SKT-0464[B]
16. Email Correspondence regarding Condition C3 and C22 prepared by Grocon dated 17 December 2019
17. Email Correspondence regarding Sydney Imax Redevelopment Construction Certificate prepared by Grocon Constructions (NSW) Pty Limited dated 14 November 2019
18. Independent Audit Program
19. Acoustic Design Certification prepared by Acoustic Logic dated 12 December 2019
20. NABERS Energy and Water Statement prepared by Cundall dated 19 November 2019
21. Performance Solution Report Ambulant WC prepared by Morris Goding Access Consulting dated 12 December 2019
22. Performance Solution Report The Ribbon Hotel prepared by Morris Goding Access Consulting dated 12 December 2019
23. Structural Certificate prepared by Alessi Consulting dated 30 September 2019
24. Letter regarding DA8838 prepared by Grocon Constructions (NSW) Pty Limited dated 14 November 2019
25. Letter regarding Condition Finalised as per SSD7388 prepared by Grocon Constructions (NSW) Pty Limited dated 13 December 2019
26. Section E Certification (Hoarding and Scaffolding) prepared by Alessi Consulting dated 30 August 2019
27. Design Statement for Architectural Document Works prepared by Willow dated 19 December 2019
28. Letter regarding Condition B13 prepared by Cundall dated 21 January 2020
29. Letter regarding Condition B13 prepared by Grocon dated 14 January 2020
30. NABERS Capability Energy Report Revision B prepared by Cundall dated 19 September 2018
31. NABERS Water Capability Report Revision D prepared by Cundall dated 22 July 2019
32. Workplace Safety Management Plan Revision 2 prepared by Grocon dated 23 June 2016
33. Letter regarding JV3 & BCA Part J Compliance prepared by Cundall Johnston and Partners Pty Ltd dated 13 December 2019
34. Waste & Demolition Management Plan prepared by Delta Group dated 12 May 2015
35. Vibration Monitoring Plan prepared by Douglas Partners Pty Ltd dated 28 July 2016
36. Internal Traffic Management Plan prepared by Grocon dated September 2019
37. Noise Impact Assessment prepared by Acoustic Logic dated 8 July 2016
38. Letter regarding Construction Certificate SSD 8838 Condition B6 Mechanical Ventilation prepared by D&E Air Conditioning dated 13 December 2019
39. Letter regarding Construction Certificate SSD 8838 Scope of Works prepared by Grocon dated 2 March 2020
40. Letter regarding Hotel Fitout Condition C1 prepared by Grocon dated 24 February 2020
41. Email Correspondence regarding Conditions C7, C8, C9, C10 & C12 Documentation prepared by Grocon dated 2 March 2020
42. Construction Management Plan Issue 5 prepared by Grocon dated 1 August 2016
43. Letter regarding SSD 8838 Condition B10, B11 & B12 prepared by Boone & Willard dated 11 December 2019
44. Specification 0679 Wall Papering IFC Review Issue 2 prepared by Ridley dated 31 May 2019
45. Specification 0671 Painting/ Clear Finishing IFC Review Issue 2 prepared by Ridley dated 31 May 2019
46. Specification 0652 Carpet IFC Review Issue 2 prepared by Ridley dated 31 May 2019

47. Specification 0631 Tiling IFC Review Issue 2 prepared by Ridley dated 31 May 2019
48. Specification 0551 Joinery IFC Review Issue 2 prepared by Ridley dated 31 May 2019
49. Master Technical Reference Sheet Issue 39 prepared by Schumann Consult Australia dated 30 August 2019
50. Operational Waste Management Plan prepared by The Aquis Group dated 15 April 2020
51. Design Statement regarding Base Build Works prepared by Willow Digital dated 12 March 2020
52. Design Statement regarding Applied Finishes Works prepared by Willow Digital dated 12 March 2020
53. Design Statement regarding Hydraulic Works prepared by EFWW Consulting Engineers dated 14 November 2019
54. Design Statement for Structural Works prepared by Bonacci dated 9 March 2020
55. Compliance Statement for Hazardous Waste Removal prepared by Absolute Tiling Solutions dated 18 March 2019
56. Compliance Statement regarding Hazardous Waste Works prepared by Brintons
57. Design Statement for Internal Lighting System works prepared by Heyday Group dated 13 December 2019
58. Construction Certificate 19-123767-5 prepared by McKenzie Group Consulting (NSW) dated 27 November 2019
59. Letter regarding DA Condition C12 Works prepared by Wetaroll Wallpaper Solutions dated 11 March 2020
60. Compliance Statement regarding Hazard Waste Removal Service Works prepared by Cubic Interiors dated 18 March 2020
61. Access Report Revision CCv.4 prepared by Morris Goding Access Consulting dated 20 September 2019
62. JV3 Compliance Report Revision C prepared by Cundall dated 4 December 2018
63. Email Correspondence regarding DA Condition B9 prepared by Grocon dated 05 March 2020
64. Email Correspondence regarding DA Conditions C3 C22 and C19 prepared by Grocon dated 05 March 2020
65. Email Correspondence regarding DA Conditions C8 prepared by Grocon dated 13 March 2020
66. Email Correspondence regarding DA Conditions C13 prepared by Grocon dated 09 March 2020
67. Email Correspondence regarding DA Conditions B16 prepared by Grocon dated 17 December 2019
68. Email Correspondence regarding DA Conditions C7 and C8 prepared by Grocon dated 13 March 2020
69. Email Correspondence regarding DA SSD 8838 Condition C8 prepared by Grocon dated 12 March 2020
70. Email Correspondence regarding DA Condition C7, C8, C9, C10 and C11 prepared by Grocon dated 12 March 2020
71. Articles prepared by ACAA dated 2019
72. Design Statement for Accessible Rooms Works prepared by MGAC dated 14 March 2020
73. Engineering Portfolio for Timothy Hoare prepared by Engineers Australia Portal dated 22 February 2018
74. NABERS Energy and Water Statement prepared by Cundall dated 12 March 2020
75. Information regarding Hannah Morton dated 30 March 2020
76. Long Service Levy Receipt prepared by Long Service Corporation dated 27 March 2020
77. NCC Classification Plans prepared by Ridley numbered: ARC-RID-0900-00 [B], ARC-RID-0901-00 [B], ARC-RID-0902-00 [B], ARC-RID-0903-00 [B], ARC-RID-0905-00 [B], ARC-RID-0910-00 [B], ARC-RID-0912-00 [B], ARC-RID-0915-00 [B], ARC-RID-0917-00 [B], ARC-RID-0919-00 [B], ARC-RID-0921-00 [B], ARC-RID-0923-00 [B], ARC-RID-0923-00 [B], ARC-RID-0928-00 [B], ARC-RID-0930-00 [B]

Development Consent

Certificate no.: SSD 8838
Date of Determination: 28 February 2019

Certificate / Certifying Authority

McKenzie Group Consulting (NSW) Pty Ltd, certify that the work, if completed in accordance with these plans and specifications will comply with the Environmental Planning and Assessment Regulation 2000 as referred to in Section 6.8 of the Environmental Planning and Assessment Act 1979.

**Signature**

Signed on behalf of the Company, McKenzie Group Consulting (NSW) Pty Ltd
(ACN 093 211 995), BPB Corporate Accreditation No. ABC 6
Signed by: Vijay Perumal
Accredited Certifier Grade: A1
BPB Registration No.: 2299

Date of endorsement **29 April 2020**
Certificate Number **20/123767-6**

Note: Prior to commencement of work section 6.6 of the Environmental Planning and Assessment Act 1979 must be satisfied.

ATTACHMENT 1
Existing Fire Safety Schedule

(Pursuant to Clause 168 of the Environmental Planning and Assessment Regulation 2000)

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
1.	Access Panels, Doors and Hoppers	BCA 2016 Clause C3.13
2.	Automatic Fail Safe Devices	BCA 2016 Clause D2.19 & D2.21
3.	Automatic Fire Detection and Alarm System	<p>BCA 2016 Spec. E2.2a & AS 1670.1 – 2015, AS/NZS 1668.1 – 2015 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The building shall be provided with a smoke detection and alarm system in accordance with BCA Specification E2.2a and the relevant requirement of AS 1670.1-2015. The system shall also be provided in accordance with the following:</p> <p>Class 3 public areas and back of house areas (including plant rooms) shall be provided with smoke detectors in accordance with Section 5.1 of AS 1670.1-2015, including in sprinkler protected areas, however smoke detectors are not required within concealed spaces.</p> <ul style="list-style-type: none"> ▪ Thermal detectors complying with the relevant requirements of AS 1670.1-2015 may be provided in lieu of smoke detectors in locations where smoke detectors are likely to experience frequent spurious signals. <p>The Level 3 and Level 5 areas shall have smoke detectors located on a 10 m by 10 m grid and a smoke detector within each room.</p> <p>The Level 10 Mech Plant room and the Level 28 Plant Room shall have smoke detectors located on a 6 m by 6 m grid.</p> <p>Where automatic closing doors are provided to smoke lobby doors on Ground Level (refer to Item 1.20), a smoke detector shall be provided on the non-smoke lobby side of the door, located not more than 1.5 m from the door.</p> <p>The lightwell is not required to be provided with a smoke detection system at the top of the atrium (aspirating or otherwise).</p> <p>Smoke detection within the car stacker shall be provided at the underside of the roof / Level 3 slab of the car stacker in accordance with Clause 7 of AS 1670.1-2015.</p> <p>The occupant warning system required for the building shall meet the requirements of Item 2.12.</p>
4.	Automatic Fire Suppression System	<p>BCA 2016 Spec. E1.5 & AS2118.1:1999, AS2118.6:2012, AS2118.1:2006 & AS2118.1:2017 (where specified) & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>Any cupboard or wardrobes that are not provided with sprinklers (refer to Item 2.2) shall:</p> <ul style="list-style-type: none"> ▪ Have a floor area not greater than 2.5 m²; ▪ Have their walls and ceilings lined with non-combustible materials; and ▪ Not be used for the storage of flammable liquids. ▪ In addition to the requirements of the BCA Clause E1.5, AS 2118.1-1999 and AS 2118.6-2012, the automatic sprinkler system shall be provided in accordance with the following:

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ▪ Fast response heads with a RTI of not more than 50 ms^{-1/2} shall be provided throughout the non-residential areas of the building. ▪ The sprinkler concessions within Item 2.2 may be applied. ▪ Concealed heads shall not be provided within the IMAX auditorium. ▪ Sprinklers shall be provided within the smoke lobbies (shaded orange in Figure 2-27) that are provided adjacent to the Ground Level fire-isolated passageways (refer to Item 1.20). ▪ Sprinklers shall be provided within the fire separated area of Stair H13 and associated corridor (refer to Item 1.29). ▪ Sprinkler coverage is not required to be provided to the base of the lightwell on Level 18. ▪ Sprinkler protection to the roof of the lightwell is not required. ▪ Sprinkler protection to the portions of the Retail and Hotel areas on Level 1 that are located beneath the northern Western Distributor Roadway (shown shaded in Figure 2-28) shall be in accordance with Item 2.3 ▪ Sprinklers within the car stacker shall be in accordance with Item 2.4. ▪ The following concessions that are provided within AS 2118.1-2017 may be applied to the sprinkler system serving the subject building: <ul style="list-style-type: none"> ▪ Clause 5.7.7(c) – the clear space below sprinkler deflectors is permitted to be not less than 250 mm in washrooms and toilet cubicles ▪ Clause 5.7.10 – Dry shadowed areas up to a cumulative area of 1.4 m² per sprinkler are permitted. ▪ Clause 5.9.17 - Cupboards and Wardrobes are not required to be provided with a sprinkler head within the cupboard / wardrobe on the basis that sprinklers in the adjoining room are positioned in front of the door such that they would cover the area of the cupboard/wardrobe if the doors are in the open position and the cupboard/wardrobe is constructed in accordance with Item 1.31. <p>The sprinkler protection to portions of the Retail and Hotel areas on Level 1 that are located beneath the northern Western Distributor Roadway (shown shaded in Figure 2-28) shall consist of:</p> <ul style="list-style-type: none"> ▪ Sprinklers located below the ceiling (referred to as below-ceiling sprinklers), designed to achieve the spacing and performance requirements of Light Hazard for Hotel areas and OH3 for Retail areas; ▪ Sprinklers located above the ceiling (but below the roof) (referred to as above-ceiling sprinklers), designed to achieve the spacing and performance requirements of OH3. <p>The below-ceiling system and above-ceiling system shall each be served by separate isolation valves, one being located within a fire-isolated stair on Level 1 and the other being located within a fire-isolated stair on Level 2.</p>

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		For the kitchen exhaust ducts that discharge beneath the northern Wester Distributor Roadway (shown highlighted yellow in Figure 2-29) – in addition to the requirements of AS 2118.1-1999 for sprinkler heads within kitchen exhaust ducts, a secondary sprinkler head shall be provided within each kitchen exhaust duct. These secondary sprinkler heads shall: <ul style="list-style-type: none"> ▪ Be located near the top of the corresponding kitchen exhaust duct; ▪ Be fed from the above-ceiling sprinkler system (refer to (a)(ii) above); and ▪ Have a suitable activation temperature for their location and comply with the requirements and guidance in AS 2118.1-1999
5.	Emergency Lifts	BCA 2016 Clause E3.4 & AS 1735.2 – 2001 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: <ul style="list-style-type: none"> ▪ Lifts G and H are to be designed as emergency lifts to service all levels, except Level 30. These lifts are permitted to be located within the same fire-isolated shaft. ▪ Lifts A, B and C are to be provided with a fire service recall control switch complying with BCA Clause E3.9.
6.	Emergency Lighting	BCA 2016 Clause E4.2, E4.4 & AS/NZS 2293.1 – 2005 Amdt 1 & 2 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: Emergency lighting and exit signage is not required to be provided within the car stacker in accordance with the Deemed-to-Satisfy Provisions of the BCA. Illuminated exit signs shall be provided in accordance with AS 2293.1–2005 on each level within the car stacker, to highlight the egress points. The locations identified in drawing ELE-HEY-SHD-0475-00 are considered appropriate.
7.	EWIS (Sound Systems and Intercom Systems for Emergency Purpose)	BCA 2016 Clause E4.9 & AS 1670.4 - 2015 & AS 4428.4-2004 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: In addition to the requirements of BCA Specification E2.2a, Clause 6 and BCA Clause E4.9, the building occupant warning system shall be provided in accordance with the following: The sound pressure levels of the occupants warning system shall be not less than 75 dB(A) at all bedheads in all residential SOUs with the SOU entry door and all internal doors closed. Smoke and acoustic seals are to be installed on all doors where required prior to testing of sound pressure levels. The occupant warning system is to be configured to have cascading ALERT and cascading EVCUATE tones in accordance with the OWS matrix in Appendix F. The delay period between successive cascades to subsequent evacuation zones shall be 120 seconds. The Level 3 AHU Plantroom is to be treated as part of the car stacker evacuation zone.
8.	Emergency Evacuation Plan	AS 3745 – 2002

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
9.	Exit Signs	<p>BCA Clauses E4.5, NSW E4.6 & E4.8 and AS/NZS 2293.1 – 2005 Amdt 1 & 2 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The concession permitted within BCA Clause E4.7 shall not be provided, all exit signs and directional exit signs shall be illuminated.</p> <p>Illuminated directional exit signage shall be provided within Stair H08, at the base of the lowest flight, to direct occupants descending the stair to the north fire-isolated passageway.</p> <p>In addition to the exit signage required by the Deemed-to-Satisfy Provisions, additional directional exit signs shall be provided on Level 23, Level 25 and Level 26 as indicated in Figure 2-36, Figure 2-37 and Figure 2-38 respectively.</p> <p>Illuminated exit signs and direction exit signs shall be provided in accordance with BCA Part E4 and AS 2293.1–2005.</p> <p>The southern doorways from Retail Tenancies 02 and 03 on Ground Level, that lead into smoke lobbies (refer to Figure 2-27) shall not be nominated as exits nor be provided with exit signs.</p>
10.	Fire Control Rooms	BCA 2016 Spec. E1.8
11.	Fire Curtains	<p>BCA 2016 AS1905.2 – 2005 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The fire curtain system, inclusive of head box, any side guides and curtain material, is to have been tested in accordance with AS 1530.4-2014 to determine the fire resistance level of the curtain. The fire curtain dimensions approved by the test shall cover all sizes applied for the project. ▪ The fire curtains are to have been designed to an internationally recognised standard and capable of achieving a minimum fire resistance level of -/120/-. ▪ The fire curtains are to be configured to operate in accordance with 2.21. ▪ The fire curtain shall be in the fully closed position within 60 seconds of activation. ▪ A red coloured strobe light and audible warning device must be located adjacent to each fire curtain, and both of which shall activate upon, or prior to, commencement of descent of the fire curtain. The audible device is to produce a sound of adequate intensity to alert occupants adjacent to the fire curtain, with consideration given to ambient noise levels.
12.	Fire Dampers	BCA 2016 Clause C3.15, AS/NZS 1668.1 – 2015 & AS 1682.1&2 - 1990
13.	Fire Doors	BCA 2016 Clause C3.2, C3.4, C3.5, C3.6, C3.7 & C3.8, Spec C3.4 and AS 1905.1 – 2015
14.	Fire Hose Reels	BCA 2016 Clause E1.4 & AS 2441 – 2005 Amdt 1 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		Fire hose reel coverage is not required to be provided to the following fire and smoke separated areas. <ul style="list-style-type: none"> ▪ The egress corridors on Ground Level (shaded blue in Figure 2-27); ▪ (The smoke lobbies on Ground Level (shaded orange in Figure 2-27); ▪ The fire separated areas of Stair H13 and associated corridor (shaded orange in Figure 2-32) ▪ The Lift lobbies and adjacent comms rooms on Level 3, Level 5 and Level 29 (shaded orange in Figure 2-19, Figure 2-20, Figure 2-21 and Figure 2-22 and Figure 2-23).
15.	Fire Hydrant System	BCA 2016 Clause E1.3 & AS 2419.1 – 2005 Amdt 1 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: In addition to the requirements of the BCA Clause E1.3 AS 2118.6-2012 and AS 2419.1-2005, the fire hydrant system shall be provided in accordance with the following: The fire hydrant booster is permitted to be located within 10 m of the building; A red visual warning device (red strobe) shall be provided at the fire hydrant booster assembly in accordance with Item 2.11; Where additional internal attack hydrants are required on the floorplate (i.e. in addition to those in the fire-isolated stairs), these shall be located within 25 m of a fire hydrant located within a fire-isolated stair. An attack hydrant is to be provided within the bicycle parking and amenities area on Ground Level. The fire hydrants that are provided to service the Car stacker shall not be located within the car stacker fire compartment (i.e. they shall be located within the fire-isolated access stair and the Level 2 lobby). Fire hydrant coverage to all areas of the car stacker shall be achieved with a 30 m length of hose and a 10 m spray, except for the following permitted shortfall areas: <ul style="list-style-type: none"> ▪ Level 1 mezzanine: ~3 m shortfall to the north-west corner; ▪ Level 2: ~1 m shortfall to the north-west corner; and ▪ Level 2 mezzanine: ~ 5 m shortfall to the north-west corner. Signage is to be provided in accordance with Item 3.6.
16.	Fire Seals, Collars	BCA 2016 Clause C3.15, C3.16 & AS 1530.4 – 2014
17.	Fire Shutters	BCA 2016 Spec. C3.4 & AS 1905.2 – 2005
18.	Lightweight Construction	BCA 2016 Clause C1.8, C3.17 & AS 1530.3 – 1999
19.	Mechanical Air Handling System	BCA 2016 Clause E2.2, AS/NZS 1668.1 – 2015 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: <ul style="list-style-type: none"> ▪ The mechanical service risers that extend above the ballroom shall be separated from the ballroom by fire rated construction achieving an FRL of at least -/120/120.

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ▪ Mechanical ductwork passing through these fire separations shall be provided with fire rated smoke dampers in accordance with Item 2.18.
20.	Paths of Travel	<p>EP&A Reg 2000 Clause 186 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The travel distances in the residential areas on Level 10 to Level 28 shall be no more than 22 m from an SOU entry door to a point of choice of exits. ▪ Alternative paths of travel are permitted to converge within 6 m at the western core on Levels 12 to Level 18. ▪ The travel distance within the Level 10 Mech Plant room is permitted to be up to 32 m to a point of choice. ▪ The travel distance within the Level 28 Plant room is permitted to be up to 34 m to a point of choice. ▪ The travel distance within the Level 1 Hotel Lounge area is permitted to be up to 24 m to a point of choice. ▪ The travel distance within the Level 3 restaurant and associated areas shall comply with the BCA Deemed-to-Satisfy Provisions of Clause D1.4(c)(i), except that the travel distance to a point of choice within this area is permitted to be up to 21 m.
21.	Portable Fire Extinguishers	BCA 2016 Clause E1.6 & AS 2444 – 2001
22.	Pressurising Systems	<p>BCA 2016 Clause E2.2 & AS/NZS 1668.1 – 2015 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The Class 6 retail areas on Ground Level and Level 1 are not required to be provided with a zone pressurisation system.</p> <p>The Class 9b IMAX tenancy is not required to be provided with a zone pressurisation system.</p> <p>The Class 9b bar and pool areas on Level 29 and Level 30 are not required to be provided with a zone pressurisation system.</p> <p>The Class 6 areas on Level 3 and the Class 9b areas on Level 5 shall be provided with a zone pressurisation system in accordance with AS/NZS 1668.1-2015 except that:</p> <ul style="list-style-type: none"> ▪ The system need only provide the required pressure differential (on the level of fire detection) in the event of a fire being detected within Level 3 or Level 5. ▪ The operation of the system shall be coordinated with the descent of the fire curtains on Level 3 and Level 5 (refer to Items 1.12, 1.16, and 2.21) <p>The stair pressurisation system to the fire-isolated stairs serving the residential levels is permitted to be designed based on levels 18 to 27 (inclusive) each being separate fire compartments.</p> <p>The fire-isolated passageways on Ground Level that connect Stairs H05 and H06 to the outside (shaded blue in Figure 2-27) are not required to be pressurised.</p>

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<p>The following configuration shall be adopted during commissioning and maintenance testing of the stair pressurisation systems serving Stairs H05 and H06:</p> <ul style="list-style-type: none"> ▪ The door between Stair H05 and the north fire-isolated passageway and the final discharge door from the north fire-isolated passageway to the outside shall be open during the testing of the Stair H05 pressurisation system. ▪ The door between Stair H06 and the south fire-isolated passageway and the final discharge door from the south fire-isolated passageway to the outside shall be open during the testing of the Stair H06 pressurisation system. ▪ All doors to smoke lobbies and doors to Stairs H07 and H08 shall be closed during testing.
23.	Required Exit Doors (power operated)	BCA 2016 Clause D2.19
24.	Self-Closing Fire Hoppers	BCA 2016 Clause C3.13 & AS 1530.4 – 2015
25.	Smoke Hazard Management System	<p>BCA 2016 Part E2 & AS/NZS 1668.1 – 2015 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The car stacker shall be provided with a smoke exhaust system (hot layer smoke control system) in accordance with AS/NZS 1668.1-2015.</p> <p>The smoke extract shall be provided by a single extract point located at the roof level, in the centre of the space as indicated in Figure 2-30, providing a total extract rate of 30 m³/s.</p> <p>Makeup air shall be provided via fixed open façade louvers in accordance with Item 1.15.</p> <p>The smoke exhaust system shall be configured to operate upon activation of the smoke detection system (refer to Item 2.8(f)) or the sprinkler system (refer to Item 2.4) within the car stacker.</p> <p>The HVAC systems within the escalator void fire compartment (refer to Item 1.12) shall be configured to operate in accordance with Table 2-3 in fire mode.</p> <p>The HVAC systems within the Level 29 and Level 30 bar fire compartment shall be configured to operate in accordance with Table 2-3 in fire mode.</p>
26.	Smoke Dampers	BCA 2016 AS/NZS 1668.1 – 2015
27.	Smoke Doors	BCA 2016 Spec. C3.4
28.	Smoke Seals	<p>AS1530.7 – 2007 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The following doors are to be provided with ambient, and medium temperature smoke seals: <ul style="list-style-type: none"> ○ Doors forming part of fire and smoke compartmentation on residential Levels (refer to Item 1.8); ○ Doors within fire rated walls in the IMAX tenancy (refer to Item 1.7) ○ Doors to smoke lobbies and discharge passageways on Ground Level (refer to Item 1.20);

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ○ Doors on Ground Level in the wall between the carpark and the lift lobby serving Lifts G and H; ○ Doors on Ground Level in the wall between the carpark and the Retail 02 tenancy (refer to ○ Item 1.2); ○ Doors to Lift Smoke lobbies (refer to Item 1.13) ○ Doors to Comms and service cabinets (refer to Item 1.9(b)) ▪ The following doors are to be provided with ambient, medium, and hot (intumescent) temperature smoke seals: <ul style="list-style-type: none"> ○ All doors opening into residential public corridors from residential SOUs and non-SOU rooms (Including comms rooms and service rooms - refer to Item 1.9(a)). ▪ Ambient and medium temperature smoke seals are to be installed on the top, bottom, and sides of the door leaf or the door frame. Hot temperature smoke seals are to be installed on the top and sides of the door leaf or the door frame – these are not required on the bottom of the door leaf. ▪ The ambient and medium temperature seals are to have been tested to AS 1530.7-2007, or equivalent, for ambient (25 ± 15°C) and medium (200 ± 20°C) temperature smoke. The door and seals are to form a smoke door assembly that complies with AS 6905-2007(except in the case of doors to comms and service cabinets – Item (a)(vii) above). ▪ The hot (intumescent) smoke seals are to have been tested to AS 1530.4-2014, for > 200°C temperature smoke. ▪ Hot smoke seals are to be either a separate seal to the ambient and medium temperature seal or as a combined ambient/medium/hot temperature seal such as Lorient LAS1812LSS or Killargo KG1612BW.
29.	Stand-by Power System	BCA 2016 Clause G3.8
30.	Wall-Wetting Sprinkler and Drencher Systems	<p>BCA 2016 Clause C3.4 & AS 2118.2 – 2010 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The south facing glazing of Retail Tenancy 06 on Ground Level that is located within 6 m of the SHFA building (refer to Item 1.36) is to be provided with wall wetting sprinklers (Drenchers) as indicated in Figure 2-31. ▪ The wall wetting sprinklers (Drenchers) shall be provided both internally and externally and be installed in accordance with the relevant requirements of AS 2881.2-2012 ▪ The sprinkler bulbs shall be fast response with a RTI of not more than 50 ms-1/2.

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ▪ The wall wetting sprinklers (Drenchers) shall be supplied from a sprinkler zone other than the sprinkler zone that serves the Retail Tenancy 06 areas on Ground Level.
31.	Warning and Operational Signs	EP&A Reg 2000 Clause 183, BCA Clause C3.6, D2.23, E3.3 & H101.8 Fire Engineering Report prepared by Holmes Engineering Revision E dated 19 September 2019
32.	Fire Engineering Report	Fire Engineering Report prepared by Holmes Engineering Revision E dated 19 September 2019 Structural Fire Engineering Report prepared by Holmes Fire Version F dated 31 July 2019

Proposed Fire Safety Schedule

(Pursuant to Clause 168 of the Environmental Planning and Assessment Regulation 2000)

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
1.	Access Panels, Doors and Hoppers	BCA 2016 Clause C3.13
2.	Automatic Fail Safe Devices	BCA 2016 Clause D2.19 & D2.21
3.	Automatic Fire Detection and Alarm System	<p>BCA 2016 Spec. E2.2a & AS 1670.1 – 2015, AS/NZS 1668.1 – 2015 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The building shall be provided with a smoke detection and alarm system in accordance with BCA Specification E2.2a and the relevant requirement of AS 1670.1-2015. The system shall also be provided in accordance with the following:</p> <p>Class 3 public areas and back of house areas (including plant rooms) shall be provided with smoke detectors in accordance with Section 5.1 of AS 1670.1-2015, including in sprinkler protected areas, however smoke detectors are not required within concealed spaces.</p> <ul style="list-style-type: none"> ▪ Thermal detectors complying with the relevant requirements of AS 1670.1-2015 may be provided in lieu of smoke detectors in locations where smoke detectors are likely to experience frequent spurious signals. <p>The Level 3 and Level 5 areas shall have smoke detectors located on a 10 m by 10 m grid and a smoke detector within each room.</p> <p>The Level 10 Mech Plant room and the Level 28 Plant Room shall have smoke detectors located on a 6 m by 6 m grid.</p> <p>Where automatic closing doors are provided to smoke lobby doors on Ground Level (refer to Item 1.20), a smoke detector shall be provided on the non-smoke lobby side of the door, located not more than 1.5 m from the door.</p> <p>The lightwell is not required to be provided with a smoke detection system at the top of the atrium (aspirating or otherwise).</p> <p>Smoke detection within the car stacker shall be provided at the underside of the roof / Level 3 slab of the car stacker in accordance with Clause 7 of AS 1670.1-2015.</p> <p>The occupant warning system required for the building shall meet the requirements of Item 2.12.</p>
4.	Automatic Fire Suppression System	<p>BCA 2016 Spec. E1.5 & AS2118.1:1999, AS2118.6:2012, AS2118.1:2006 & AS2118.1:2017 (where specified) & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>Any cupboard or wardrobes that are not provided with sprinklers (refer to Item 2.2) shall:</p> <ul style="list-style-type: none"> ▪ Have a floor area not greater than 2.5 m²; ▪ Have their walls and ceilings lined with non-combustible materials; and ▪ Not be used for the storage of flammable liquids. ▪ In addition to the requirements of the BCA Clause E1.5, AS 2118.1-1999 and AS 2118.6-2012, the automatic sprinkler system shall be provided in accordance with the following:

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ▪ Fast response heads with a RTI of not more than 50 ms^{-1/2} shall be provided throughout the non-residential areas of the building. ▪ The sprinkler concessions within Item 2.2 may be applied. ▪ Concealed heads shall not be provided within the IMAX auditorium. ▪ Sprinklers shall be provided within the smoke lobbies (shaded orange in Figure 2-27) that are provided adjacent to the Ground Level fire-isolated passageways (refer to Item 1.20). ▪ Sprinklers shall be provided within the fire separated area of Stair H13 and associated corridor (refer to Item 1.29). ▪ Sprinkler coverage is not required to be provided to the base of the lightwell on Level 18. ▪ Sprinkler protection to the roof of the lightwell is not required. ▪ Sprinkler protection to the portions of the Retail and Hotel areas on Level 1 that are located beneath the northern Western Distributor Roadway (shown shaded in Figure 2-28) shall be in accordance with Item 2.3 ▪ Sprinklers within the car stacker shall be in accordance with Item 2.4. ▪ The following concessions that are provided within AS 2118.1-2017 may be applied to the sprinkler system serving the subject building: <ul style="list-style-type: none"> ▪ Clause 5.7.7(c) – the clear space below sprinkler deflectors is permitted to be not less than 250 mm in washrooms and toilet cubicles ▪ Clause 5.7.10 – Dry shadowed areas up to a cumulative area of 1.4 m² per sprinkler are permitted. ▪ Clause 5.9.17 - Cupboards and Wardrobes are not required to be provided with a sprinkler head within the cupboard / wardrobe on the basis that sprinklers in the adjoining room are positioned in front of the door such that they would cover the area of the cupboard/wardrobe if the doors are in the open position and the cupboard/wardrobe is constructed in accordance with Item 1.31. <p>The sprinkler protection to portions of the Retail and Hotel areas on Level 1 that are located beneath the northern Western Distributor Roadway (shown shaded in Figure 2-28) shall consist of:</p> <ul style="list-style-type: none"> ▪ Sprinklers located below the ceiling (referred to as below-ceiling sprinklers), designed to achieve the spacing and performance requirements of Light Hazard for Hotel areas and OH3 for Retail areas; ▪ Sprinklers located above the ceiling (but below the roof) (referred to as above-ceiling sprinklers), designed to achieve the spacing and performance requirements of OH3. <p>The below-ceiling system and above-ceiling system shall each be served by separate isolation valves, one being located within a fire-isolated stair on Level 1 and the other being located within a fire-isolated stair on Level 2.</p>

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		For the kitchen exhaust ducts that discharge beneath the northern Wester Distributor Roadway (shown highlighted yellow in Figure 2-29) – in addition to the requirements of AS 2118.1-1999 for sprinkler heads within kitchen exhaust ducts, a secondary sprinkler head shall be provided within each kitchen exhaust duct. These secondary sprinkler heads shall: <ul style="list-style-type: none"> ▪ Be located near the top of the corresponding kitchen exhaust duct; ▪ Be fed from the above-ceiling sprinkler system (refer to (a)(ii) above); and ▪ Have a suitable activation temperature for their location and comply with the requirements and guidance in AS 2118.1-1999
5.	Emergency Lifts	BCA 2016 Clause E3.4 & AS 1735.2 – 2001 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: <ul style="list-style-type: none"> ▪ Lifts G and H are to be designed as emergency lifts to service all levels, except Level 30. These lifts are permitted to be located within the same fire-isolated shaft. ▪ Lifts A, B and C are to be provided with a fire service recall control switch complying with BCA Clause E3.9.
6.	Emergency Lighting	BCA 2016 Clause E4.2, E4.4 & AS/NZS 2293.1 – 2005 Amdt 1 & 2 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: Emergency lighting and exit signage is not required to be provided within the car stacker in accordance with the Deemed-to-Satisfy Provisions of the BCA. Illuminated exit signs shall be provided in accordance with AS 2293.1–2005 on each level within the car stacker, to highlight the egress points. The locations identified in drawing ELE-HEY-SHD-0475-00 are considered appropriate.
7.	EWIS (Sound Systems and Intercom Systems for Emergency Purpose)	BCA 2016 Clause E4.9 & AS 1670.4 - 2015 & AS 4428.4-2004 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: In addition to the requirements of BCA Specification E2.2a, Clause 6 and BCA Clause E4.9, the building occupant warning system shall be provided in accordance with the following: The sound pressure levels of the occupants warning system shall be not less than 75 dB(A) at all bedheads in all residential SOUs with the SOU entry door and all internal doors closed. Smoke and acoustic seals are to be installed on all doors where required prior to testing of sound pressure levels. The occupant warning system is to be configured to have cascading ALERT and cascading EVCUATE tones in accordance with the OWS matrix in Appendix F. The delay period between successive cascades to subsequent evacuation zones shall be 120 seconds. The Level 3 AHU Plantroom is to be treated as part of the car stacker evacuation zone.
8.	Emergency Evacuation Plan	AS 3745 – 2002

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
9.	Exit Signs	<p>BCA Clauses E4.5, NSW E4.6 & E4.8 and AS/NZS 2293.1 – 2005 Amdt 1 & 2 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The concession permitted within BCA Clause E4.7 shall not be provided, all exit signs and directional exit signs shall be illuminated.</p> <p>Illuminated directional exit signage shall be provided within Stair H08, at the base of the lowest flight, to direct occupants descending the stair to the north fire-isolated passageway.</p> <p>In addition to the exit signage required by the Deemed-to-Satisfy Provisions, additional directional exit signs shall be provided on Level 23, Level 25 and Level 26 as indicated in Figure 2-36, Figure 2-37 and Figure 2-38 respectively.</p> <p>Illuminated exit signs and direction exit signs shall be provided in accordance with BCA Part E4 and AS 2293.1–2005.</p> <p>The southern doorways from Retail Tenancies 02 and 03 on Ground Level, that lead into smoke lobbies (refer to Figure 2-27) shall not be nominated as exits nor be provided with exit signs.</p>
10.	Fire Control Rooms	BCA 2016 Spec. E1.8
11.	Fire Curtains	<p>BCA 2016 AS1905.2 – 2005 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The fire curtain system, inclusive of head box, any side guides and curtain material, is to have been tested in accordance with AS 1530.4-2014 to determine the fire resistance level of the curtain. The fire curtain dimensions approved by the test shall cover all sizes applied for the project. ▪ The fire curtains are to have been designed to an internationally recognised standard and capable of achieving a minimum fire resistance level of -/120/-. ▪ The fire curtains are to be configured to operate in accordance with 2.21. ▪ The fire curtain shall be in the fully closed position within 60 seconds of activation. ▪ A red coloured strobe light and audible warning device must be located adjacent to each fire curtain, and both of which shall activate upon, or prior to, commencement of descent of the fire curtain. The audible device is to produce a sound of adequate intensity to alert occupants adjacent to the fire curtain, with consideration given to ambient noise levels.
12.	Fire Dampers	BCA 2016 Clause C3.15, AS/NZS 1668.1 – 2015 & AS 1682.1&2 - 1990
13.	Fire Doors	BCA 2016 Clause C3.2, C3.4, C3.5, C3.6, C3.7 & C3.8, Spec C3.4 and AS 1905.1 – 2015
14.	Fire Hose Reels	BCA 2016 Clause E1.4 & AS 2441 – 2005 Amdt 1 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		Fire hose reel coverage is not required to be provided to the following fire and smoke separated areas. <ul style="list-style-type: none"> ▪ The egress corridors on Ground Level (shaded blue in Figure 2-27); ▪ (The smoke lobbies on Ground Level (shaded orange in Figure 2-27); ▪ The fire separated areas of Stair H13 and associated corridor (shaded orange in Figure 2-32) ▪ The Lift lobbies and adjacent comms rooms on Level 3, Level 5 and Level 29 (shaded orange in Figure 2-19, Figure 2-20, Figure 2-21 and Figure 2-22 and Figure 2-23).
15.	Fire Hydrant System	BCA 2016 Clause E1.3 & AS 2419.1 – 2005 Amdt 1 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: In addition to the requirements of the BCA Clause E1.3 AS 2118.6-2012 and AS 2419.1-2005, the fire hydrant system shall be provided in accordance with the following: The fire hydrant booster is permitted to be located within 10 m of the building; A red visual warning device (red strobe) shall be provided at the fire hydrant booster assembly in accordance with Item 2.11; Where additional internal attack hydrants are required on the floorplate (i.e. in addition to those in the fire-isolated stairs), these shall be located within 25 m of a fire hydrant located within a fire-isolated stair. An attack hydrant is to be provided within the bicycle parking and amenities area on Ground Level. The fire hydrants that are provided to service the Car stacker shall not be located within the car stacker fire compartment (i.e. they shall be located within the fire-isolated access stair and the Level 2 lobby). Fire hydrant coverage to all areas of the car stacker shall be achieved with a 30 m length of hose and a 10 m spray, except for the following permitted shortfall areas: <ul style="list-style-type: none"> ▪ Level 1 mezzanine: ~3 m shortfall to the north-west corner; ▪ Level 2: ~1 m shortfall to the north-west corner; and ▪ Level 2 mezzanine: ~ 5 m shortfall to the north-west corner. Signage is to be provided in accordance with Item 3.6.
16.	Fire Seals, Collars	BCA 2016 Clause C3.15, C3.16 & AS 1530.4 – 2014
17.	Fire Shutters	BCA 2016 Spec. C3.4 & AS 1905.2 – 2005
18.	Lightweight Construction	BCA 2016 Clause C1.8, C3.17 & AS 1530.3 – 1999
19.	Mechanical Air Handling System	BCA 2016 Clause E2.2, AS/NZS 1668.1 – 2015 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019: <ul style="list-style-type: none"> ▪ The mechanical service risers that extend above the ballroom shall be separated from the ballroom by fire rated construction achieving an FRL of at least -/120/120.

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ▪ Mechanical ductwork passing through these fire separations shall be provided with fire rated smoke dampers in accordance with Item 2.18.
20.	Paths of Travel	<p>EP&A Reg 2000 Clause 186 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The travel distances in the residential areas on Level 10 to Level 28 shall be no more than 22 m from an SOU entry door to a point of choice of exits. ▪ Alternative paths of travel are permitted to converge within 6 m at the western core on Levels 12 to Level 18. ▪ The travel distance within the Level 10 Mech Plant room is permitted to be up to 32 m to a point of choice. ▪ The travel distance within the Level 28 Plant room is permitted to be up to 34 m to a point of choice. ▪ The travel distance within the Level 1 Hotel Lounge area is permitted to be up to 24 m to a point of choice. ▪ The travel distance within the Level 3 restaurant and associated areas shall comply with the BCA Deemed-to-Satisfy Provisions of Clause D1.4(c)(i), except that the travel distance to a point of choice within this area is permitted to be up to 21 m.
21.	Portable Fire Extinguishers	BCA 2016 Clause E1.6 & AS 2444 – 2001
22.	Pressurising Systems	<p>BCA 2016 Clause E2.2 & AS/NZS 1668.1 – 2015 Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The Class 6 retail areas on Ground Level and Level 1 are not required to be provided with a zone pressurisation system.</p> <p>The Class 9b IMAX tenancy is not required to be provided with a zone pressurisation system.</p> <p>The Class 9b bar and pool areas on Level 29 and Level 30 are not required to be provided with a zone pressurisation system.</p> <p>The Class 6 areas on Level 3 and the Class 9b areas on Level 5 shall be provided with a zone pressurisation system in accordance with AS/NZS 1668.1-2015 except that:</p> <ul style="list-style-type: none"> ▪ The system need only provide the required pressure differential (on the level of fire detection) in the event of a fire being detected within Level 3 or Level 5. ▪ The operation of the system shall be coordinated with the descent of the fire curtains on Level 3 and Level 5 (refer to Items 1.12, 1.16, and 2.21) <p>The stair pressurisation system to the fire-isolated stairs serving the residential levels is permitted to be designed based on levels 18 to 27 (inclusive) each being separate fire compartments.</p> <p>The fire-isolated passageways on Ground Level that connect Stairs H05 and H06 to the outside (shaded blue in Figure 2-27) are not required to be pressurised.</p>

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<p>The following configuration shall be adopted during commissioning and maintenance testing of the stair pressurisation systems serving Stairs H05 and H06:</p> <ul style="list-style-type: none"> ▪ The door between Stair H05 and the north fire-isolated passageway and the final discharge door from the north fire-isolated passageway to the outside shall be open during the testing of the Stair H05 pressurisation system. ▪ The door between Stair H06 and the south fire-isolated passageway and the final discharge door from the south fire-isolated passageway to the outside shall be open during the testing of the Stair H06 pressurisation system. ▪ All doors to smoke lobbies and doors to Stairs H07 and H08 shall be closed during testing.
23.	Required Exit Doors (power operated)	BCA 2016 Clause D2.19
24.	Self-Closing Fire Hoppers	BCA 2016 Clause C3.13 & AS 1530.4 – 2015
25.	Smoke Hazard Management System	<p>BCA 2016 Part E2 & AS/NZS 1668.1 – 2015</p> <p>Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <p>The car stacker shall be provided with a smoke exhaust system (hot layer smoke control system) in accordance with AS/NZS 1668.1-2015.</p> <p>The smoke extract shall be provided by a single extract point located at the roof level, in the centre of the space as indicated in Figure 2-30, providing a total extract rate of 30 m³/s.</p> <p>Makeup air shall be provided via fixed open façade louvers in accordance with Item 1.15.</p> <p>The smoke exhaust system shall be configured to operate upon activation of the smoke detection system (refer to Item 2.8(f)) or the sprinkler system (refer to Item 2.4) within the car stacker.</p> <p>The HVAC systems within the escalator void fire compartment (refer to Item 1.12) shall be configured to operate in accordance with Table 2-3 in fire mode.</p> <p>The HVAC systems within the Level 29 and Level 30 bar fire compartment shall be configured to operate in accordance with Table 2-3 in fire mode.</p>
26.	Smoke Dampers	BCA 2016 AS/NZS 1668.1 – 2015
27.	Smoke Doors	BCA 2016 Spec. C3.4
28.	Smoke Seals	<p>AS1530.7 – 2007</p> <p>Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The following doors are to be provided with ambient, and medium temperature smoke seals: <ul style="list-style-type: none"> ○ Doors forming part of fire and smoke compartmentation on residential Levels (refer to Item 1.8); ○ Doors within fire rated walls in the IMAX tenancy (refer to Item 1.7) ○ Doors to smoke lobbies and discharge passageways on Ground Level (refer to Item 1.20);

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ○ Doors on Ground Level in the wall between the carpark and the lift lobby serving Lifts G and H; ○ Doors on Ground Level in the wall between the carpark and the Retail 02 tenancy (refer to ○ Item 1.2); ○ Doors to Lift Smoke lobbies (refer to Item 1.13) ○ Doors to Comms and service cabinets (refer to Item 1.9(b)) ▪ The following doors are to be provided with ambient, medium, and hot (intumescent) temperature smoke seals: <ul style="list-style-type: none"> ○ All doors opening into residential public corridors from residential SOUs and non-SOU rooms (Including comms rooms and service rooms - refer to Item 1.9(a)). ▪ Ambient and medium temperature smoke seals are to be installed on the top, bottom, and sides of the door leaf or the door frame. Hot temperature smoke seals are to be installed on the top and sides of the door leaf or the door frame – these are not required on the bottom of the door leaf. ▪ The ambient and medium temperature seals are to have been tested to AS 1530.7-2007, or equivalent, for ambient (25 ± 15°C) and medium (200 ± 20°C) temperature smoke. The door and seals are to form a smoke door assembly that complies with AS 6905-2007(except in the case of doors to comms and service cabinets – Item (a)(vii) above). ▪ The hot (intumescent) smoke seals are to have been tested to AS 1530.4-2014, for > 200°C temperature smoke. ▪ Hot smoke seals are to be either a separate seal to the ambient and medium temperature seal or as a combined ambient/medium/hot temperature seal such as Lorient LAS1812LSS or Killargo KG1612BW.
29.	Stand-by Power System	BCA 2016 Clause G3.8
30.	Wall-Wetting Sprinkler and Drencher Systems	<p>BCA 2016 Clause C3.4 & AS 2118.2 – 2010 & Fire Engineering Report prepared by Holmes Revision E dated 19 September 2019:</p> <ul style="list-style-type: none"> ▪ The south facing glazing of Retail Tenancy 06 on Ground Level that is located within 6 m of the SHFA building (refer to Item 1.36) is to be provided with wall wetting sprinklers (Drenchers) as indicated in Figure 2-31. ▪ The wall wetting sprinklers (Drenchers) shall be provided both internally and externally and be installed in accordance with the relevant requirements of AS 2881.2-2012 ▪ The sprinkler bulbs shall be fast response with a RTI of not more than 50 ms-1/2.

No.	Measure	Particulars of Measure <i>(including where the requirement for the measure is set out or described i.e. in building plans or in a performance solution report)</i>
		<ul style="list-style-type: none"> ▪ The wall wetting sprinklers (Drenchers) shall be supplied from a sprinkler zone other than the sprinkler zone that serves the Retail Tenancy 06 areas on Ground Level.
31.	Warning and Operational Signs	EP&A Reg 2000 Clause 183, BCA Clause C3.6, D2.23, E3.3 & H101.8 Fire Engineering Report prepared by Holmes Engineering Revision E dated 19 September 2019
32.	Fire Engineering Report	Fire Engineering Report prepared by Holmes Engineering Revision E dated 19 September 2019 Structural Fire Engineering Report prepared by Holmes Fire Version F dated 31 July 2019

ATTACHMENT 2

Conditions of Approval

(Pursuant to Clause 146B of the Environmental Planning and Assessment Regulation 2000)

The building work involving the installation, modification or extension of the relevant fire safety system cannot commence unless:

- a) plans have been submitted to the principal certifier that show:
 - i. in the case of building work involving the installation of the relevant fire safety system—the layout, extent and location of key components of the relevant fire safety system, or
 - ii. in the case of building work involving the modification or extension of the relevant fire safety system—the layout, extent and location of any new or modified components of the relevant fire safety system, and

- b) specifications have been submitted to the principal certifier that:
 - i. describe the basis for design, installation and construction of the relevant fire safety system, and
 - ii. identify the provisions of the Building Code of Australia upon which the design of the system is based, and

- c) those plans and specifications:
 - i. have been certified by a compliance certificate referred to in section 109C (1) (a) of the Act as complying with the relevant provisions of the Building Code of Australia, or
 - ii. unless they are subject to an exemption under clause 164B, have been endorsed by a competent fire safety practitioner as complying with the relevant provisions of the Building Code of Australia, and

- d) if those plans and specifications were submitted before the complying development certificate was issued—each of them was endorsed by the certifying authority with a statement that the certifying authority is satisfied that it correctly identifies both the performance requirements and the deemed-to-satisfy provisions of the Building Code of Australia, and

- e) if those plans and specifications were not submitted before the complying development certificate was issued—each of them was endorsed by the principal certifier with a statement that the principal certifier is satisfied that it correctly identifies both the performance requirements and the deemed-to-satisfy provisions of the Building Code of Australia.