



BCA Report

Project Name	Warehouse Development
Project Address	28 Yarrunga Street, Prestons
Ref	NW19/4620
Rev	3
Date	22.11.2019
Attention	BureauSRH





REVISION HISTORY

Revision	Date	Version	Prepared By	Reviewed By
DRAFT	06.08.2019	Initial Issue	Rob Wood	Belinda Hyde
2 DRAFT	04.11.2019	Revised Design (aka 2-storey)	Rob Wood	Belinda Hyde
3	22.11.2019	Revised following FRNSW pre- DA meeting	Rob Wood	Belinda Hyde

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EXECUTIVE SUMMARY

This report documents the relevant clause by clause assessment of the proposed works against the deemed to satisfy requirements of the National Code of Australia Building Code of Australia Volume One 2019.

The project consists of new multi-storey warehousing and associated office development at 28 Yarrunga St, Prestons comprising of three levels of large format warehousing each requiring B-double access, approximately 14 loading docks and approximately 364 car parking spaces.

The following information has been identified in relation to the building:

Item	Description
Building Classification(s)	7b (warehouse), 5 (office), 7a (car park)
Minimum Type of Construction	А
Effective Building height	18.3 m
Rise in Storeys	4
Number of storeys	4
Floor areas (m ²)	34,888
Volume (m ³)	Greater than 108,000
Climate zone	5

Identified non-compliances

There is insufficient information at this stage to show compliance with the BCA, however subject to the items highlighted in this report being incorporated in the scheme, then general BCA compliance could be achieved. Full compliance with certain BCA clauses cannot be ascertained without additional information being provided and typically at Construction Certificate stage, as indicated in this report.

Any item highlighted a "Capable of Compliance" will required additional information to be provided prior to issue of a Construction Certificate.

BCA Clause	Performance Requirement	Comment
C2.4	CP9	Requirements for open spaces and vehicular access
		Stage 1 will not be provided with perimeter access on the North elevation complying with C2.4 during construction of Stage 2.
		The existing warehouse does not have sprinkler protection throughout so cannot be considered a large isolated building (with Stage 1).
		The perimeter access for FRNSW to Stage 1 and Stage 2 involves passing under the offices on the East and West elevations.

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D1.4	DP2	Exit travel distances		
		Single travel distance (to exit of point choice to 2 exits) are exceeded in the following instances:		
		a) Single travel distance to stair exceeds 20 m in warehouse 3 office suite (up to 37 m)		
		 b) Single travel distance to an exit exceeds 20 m in both office suites on Level 01 mezzanine (up to 38 m and 49 m respectively) 		
		c) Single travel distance to an exit exceeds 20 m in office suite on Level 02 mezzanine (up to 49 m)		
		Total Travel Distances are exceeded in the following instances:		
		d) Total travel distance to fire stair or final exit exceeds 40 (up to 56 m) from within warehouse 1		
		e) Total travel distance to fire stair or final exit exceeds 40 (up to 56 m) from within warehouse 2		
		f) Total travel distance to an exit exceeds 40 (up to 56 m) from within warehouse 3		
		g) Total travel distance to an exit exceeds 40 (up to 56 m) from within warehouse 4		
		h) Total travel distances to an exit exceeds 40 (up to 50 m) from within the basement car park		
		Layout of warehouses not known, therefore Travel distances are likely to increase due to racking layouts etc		
D1.5	DP2, DP4	Distance between alternative exits		
		The distance between alternative exits exceeds 60 m when measured through the point of choice:		
		i. Up to 75 m within Warehouse 1 and 2		
		ii. Up to 90 m within the basement car park		
		Layout of warehouses are not known; therefore distances are likely to increase due to racking layouts etc and will require re-assessment.		
D1.7	DP2	Travel via fire isolated exits		
		The fire isolated exits discharge where it necessitates passing within 6 m of any part of an external wall of the same building.		



E1.3	EP1.3	Fire hydrants
		No hydrants shown at this stage.
		Where there are travel distance non compliances there is likely to be non-compliant hydrant coverage.
E1.4	EP1.1	Fire Hose Reels
		No fire hose reels shown at this stage.
		Where there are travel distance non compliances there is likely to be non-compliant fire hose reel coverage
E1.5	EP1.4	Sprinklers
		The existing warehouse does not have sprinkler protection.
		The sprinkler fire brigade booster, including large bore suction point, is not be located in accordance with AS 2118.1-2017, being not at the boundary to the site nor adjacent to the principle vehicular access to the site





Identified performance solutions

The following items have been identified as being capable of compliance against the performance requirements of the BCA 2019 but would be required to be addressed as a performance solution by a suitably qualified person. Fire related items will be required to be addressed by a Fire Engineer. Please refer to the relevant clause in the body of the report for detailed information.

Relevant Performance Requirement	BCA Clause	Summary
CP9	C2.3, C2.4	To have the perimeter vehicular access associated with Stage 1 not be provided on the North elevation in accordance with Clause C2.4 due to Level 1 slab overhang.
		To have the perimeter vehicular access associate with Stages 1 and 2 not provided on the East and West elevations in accordance with Clause C2.4 due to Office tenancy overhangs.
CP2	C2.3	To permit the Stage 1 and existing warehouses to be treated as separate buildings, in lieu of one building, due to the separation distance between buildings being less than 6m (approx. 4m).
DP4, EP2.2	D1.4	To permit single travel distance (to exit or point choice to 2 exits) to exceed the requirements of Clause D1.4 and;
		To permit total travel distance (to exit or point choice to 2 exits) to exceed the requirements of Clause D1.4 and;
		To permit the distance between alternative exits to exceed 60 m when measured through the point of choice and;
		To permit the distance between alternative exits to exceed 60 m when measured through the point of choice
DP5	D1.7	To permit the fire-isolated exits to discharge where it necessitates passing within 6m of any part of the external wall of the same building that does not achieve an FRL of 60/60/60 with openings not protected in accordance with Clause C3.4
EP1.4	E1.5	To permit the sprinkler fire brigade booster, including large bore suction point, to not be in accordance with AS 2118.1-2017, being not at the boundary to the site nor adjacent to the principle vehicular access to the site



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1.0 INTRODUCTION

1.1 General

The proposed development is to be located at 28 Yarrunga St, Prestons and is located within the local government area of Liverpool City Council.

The project consists of new multi-storey warehousing and associated office development comprising of three levels of large format warehousing each requiring B-double access, approximately 14 loading docks and approximately 364 car parking spaces.

1.2 Purpose of the report

This report has been prepared, on behalf of BureauSRH, to establish compliance to the Building Code of Australia (BCA) 2019.

1.3 Basis of assessment

This report documents the assessment of the proposed works against the following:

- Deemed-to-satisfy provisions of the national construction Code Building Code of Australia (BCA) 2019 Volume One
- Disability (Access to Premises) Standards 2010;
- Environmental Planning & Assessment Regulations 2000;
- Design Development Archtectural Drawing Set by BureauSRH dated 191121: DA000 A, DA001 A, DA002 A, DA003 A, DA004 A, DA005 A, DA006 A, DA100 A, DA101 A, DA102 A, DA103 A, DA104, DA105, DA106 A, DA107 A, DA108 A, DA109 A, DA110 A, DA111 A, DA112 A, DA200 A, DA201 A, DA300 A, DA301 A, DA501 A, DA502 A, DA600 A & DA701 A
- Area Schedules by BureauSRH dated 11.10.19.



2.0 BUILDING CODE OF AUSTRALIA 2019

Section A – General Provisions			
Classification A6	The classifications for the building are: Class 7b (warehouse), Class 7a (car park) and Class 5 (office)	Note	
United Building	The proposed buildings (Stage 1 and 2) have been considered as a united building.	Note	

	Section B – Structure	
Structural Provisions B1.1- B1.4	 Structural drawings and design certificates for all structural elements will be required to show compliance with these Parts, for the following (but not limited to): a) Piling, b) Foundations, c) Floor slabs, d) Frame e) Glazed Assemblies f) Roof The importance level of the building has been determined as 2 	Capable of compliance
Structural software B1.5	Structural software used in the design of the building or structure must comply with the ABCB Protocol for Structural Software.	Note
Construction of buildings in flood hazard areas B1.6	Not a class 2 or 3 building, Class 9a healthcare building, Class 9c building or Class 4 part of building.	Not applicable

Section C – Fire Safety			
Part C1 Fire Resis	stance & Stability		
Type of construction required C1.1	A 4-storey Class 7b building requires Type A construction.	Note	
Calculation of rise in storeys C1.2	The building has a rise in storeys of 4 A storey that has an average internal height of more than 6 m is counted as—	Note	
	(i) one storey if it is the only storey above the ground; or(ii) 2 storeys in any other case.		





Buildings of multiple classification C1.3	In a building of multiple classifications, the type of construction required for the building is the most fire-resisting type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.	Not applicable
Mixed types of construction C1.4	No instances where this occurs.	Not applicable
Two storey Class 2, 3 or 9c buildings C1.5	Not a Class 2 or 3 building.	Not applicable
Class 4 parts of buildings C1.6	Considered not applicable.	Not applicable
Open spectator stands and indoor sports stadiums C1.7	Considered not applicable.	Not applicable
Lightweight construction C1.8	This clause provides guidance and rules should lightweight construction be proposed in this development.	Note
Non- combustible building elements C1.9	 In a building required to be of Type A construction, the following building elements and their components must be non-combustible: (i) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation. (ii) The flooring and floor framing of lift pits. (iii) Non-loadbearing internal walls where they are required to be fire-resisting. 	Capable of compliance
Fire Hazard Properties C1.10	Fire test reports shall be provided for all wall linings, floor linings and coverings, ceiling linings, air handling ductwork and lift cars to show compliance with fire hazard properties of Specification C1.10. Test reports for floor linings must show critical radiant flux and smoke development rates. Wall and ceiling linings require a Group Number.	Capable of compliance
Performance of external walls in fire C1.11	Only applies to building up to 2-storeys.	Not applicable
C.12 ***	Deleted Clause	Not applicable
Fire-protected timber: Concession C1.13	Not applicable to this building.	Not applicable



Ancillary Elements C1.14	 An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following: a) An ancillary element that is non-combustible. b) A gutter, downpipe or other plumbing fixture or fitting. c) A flashing. d) A grate or grille not more than 2 m² in area associated with a building service. e) An electrical switch, socket-outlet, cover plate or the like f) A light fitting g) A required sign h) A sign other than one provided under a) or g) that – i. Achieves a group number of 1 or 2; and ii. Does not extend beyond on storey; and iii. Does not extend beyond on fire compartment; and iv. Is separated vertically from other signs permitted under h) by at least 2 storeys i) An awning, sunshade, canopy, blind or shading hood other than one provided under a) that – i. Meets the requirements of Table 4 of Specification C1.10 as for an internal element; and ii. Does not serve an exit, where it would render the exit unusable in a fire j) A part of a security, intercom or announcement system k) Wiring l) A paint, lacquer or similar finish m) A gasket, caulking, sealant or adhesive directly associated with a) or k) 	Capable of compliance
Application of Part C2.1	C2.2, C2.3 and C2.4 do not apply to a carpark provided with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification E1.5, an open-deck carpark or an open spectator stand. C2.12(a)(v) does not apply to a Class 8 electricity network substation.	Note
General floor area & volume limitations C2.2	In Type A building the maximum fire compartment size can be 8000 m ² and maximum volume can be 30,000 m ³ . The maximum compartment sizes are exceeded on Ground floor, Level 1, Level 2. (refer to enclosed BureauSRH Area Schedule dated 19.10.19) The maximum volume is also exceeded (refer to enclosed BureauSRH Area Schedule dated 05.08.19). Therefore, the building must be assessed as a large isolated building. Refer to C2.3	Note
Large isolated buildings	The building is a large isolated building.	Capable of compliance



C2.3	As the building is Class 5 and 7 and exceeds $18000\ m^2$ in floor area or $108000\ m^3$ in volume, if shall is—	
	(i) protected throughout with a sprinkler system complying with Specification E1.5; and	
	(ii) provided with a perimeter vehicular access complying with C2.4(b); or	
	As there is more than one building on the allotment and—	
	(i) each building complies with this clause; or	
	(ii) if the buildings are closer than 6 m to each other they are regarded as one building.	
Requirements	An open space required by C2.3 must:	Performance
spaces and vehicular access	 (a) (i) be wholly within the allotment except that any road, river, or public place adjoining the allotment, but not the farthest 6 m of it may be included; and 	solution required
62.4	(ii) include vehicular access in accordance with (b); and	
	(iii) not be used for the storage or processing of materials; and	
	(iv) not be built upon, except for guard houses and service structures (such as electricity substations and pump houses) which may encroach upon the width of the space if they do not unduly impede fire-fighting at any part of the perimeter of the allotment or unduly add to the risk of spread of fire to any building on an adjoining allotment.	
	(b) Vehicular access required by this Part—	
	 (i) must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and 	
	(ii) must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18 m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and	
	(iii) must provide reasonable pedestrian access from the vehicular access to the building; and	
	(iv) must have a load bearing capacity and unobstructed height to permit the operation and passage of fire brigade vehicles; and	
	(v) must be wholly within the allotment except that a public road complying with (i), (ii), (iii) and (iv) may serve as the vehicular access or part thereof.	



	Stage 1 will not be provided with perimeter access on the North elevation complying with C2.4 and the existing warehouse is not provided with sprinkler protection throughout.	
	office portion of the Stage 1 and Stage 2 buildings.	
	These will require to be addressed as a Performance Solution by a Fire Engineer.	
Class 9a and 9c buildings C2.5	Not a Class 9a and 9c buildings	Not applicable
Vertical separation of openings in external walls C2.6	Not applicable as a sprinkler system will be installed throughout	Not applicable
Separation by fire walls C2.7	The Clause provides guidance on how a fire wall must be constructed.	Capable of compliance
Separation of classifications	If a building has parts of different classifications located alongside one another in the same storey—	Capable of compliance
storey C2.8	(a) each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or	
	(b) the parts must be separated in that storey by a fire wall having—	
	(i) the higher FRL prescribed in Table 3 or 4; or	
	(ii) the FRL prescribed in Table 5, of Specification C1.1 as applicable, for that element for the Type of construction and the classifications concerned; or	
	(c) where one part is a carpark complying with Table 3.9, 4.2 or 5.2 of Specification C1.1, the parts may be separated by a fire wall complying with the appropriate Table.	
Separation of classifications	Where parts of different classification are situated one above the other in adjoining storeys they must be separated as follows:	Capable of compliance
storeys C2.9	(a) Type A construction — The floor between the adjoining parts must have an FRL of not less than that prescribed in Specification C1.1 for the classification of the lower storey.	
Separation of lift shafts C2.10	Any lift connecting more than 2 storeys, or more than 3 storeys if the building is sprinklered, (other than lifts which are wholly within an atrium) must be separated from the remainder of the building by enclosure in a shaft in which the walls have the relevant FRL prescribed by Specification C1.1.	Capable of compliance





	Openings for lift landing doors and services must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C3.		
Stairways and lifts in one shaft C2.11	A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.	Note	
Separation of equipment C2.12	Any lift motors and lift control panels; or emergency generators used to sustain emergency equipment operating in the emergency mode; boilers; or certain types of batteries will need to be fire separated from the rest of the building.	Capable of compliance	
Electricity supply system C2.13	Main switch board room to be separated with fire rated construction of 120/120/120 with self-closing fire doors of -/120/30	Capable of compliance	
Public corridors in Class 2 and 3 buildings C2.14	Not a Class 2 or 3 building.	Not applicable	
Part C3 Protection	Part C3 Protection of Openings		
Application of Part C3.1	The Clause provides guidance on the where the deemed-to-satisfy provisions do not apply.	Note	
Protection of openings in external walls C3.2	There are no opening within 3 m of the side boundaries that require to be protected in accordance with C3.4.	Not applicable	
Separation of external walls and associated openings in different fire compartments C3.3	No instances where this occurs.	Not applicable	
Acceptable methods of protection C3.4	This Clause provides suitable methods where protection is required to doorways, windows and other openings. Openings requiring protection can be protected by the use of wall wetting sprinklers, fire shutter, fire windows, fire doors, etc.	Note	
Doorways in fire walls C3.5	Any doors that are within a wall that is required to have an FRL, must be provided with a self-closing or auto-closing fire door.	Capable of compliance	
Sliding fire doors C3.6	No instances where this occurs.	Not applicable	



Protection of doorways in horizontal exits C3.7	No instances where this occurs.	Not applicable
Openings in fire isolated exits C3.8	The door opening/leading to the fire isolated stairway/ passageway must be protected by -/60/30 fire doors that are self-closing	Further information required
Services penetrations in fire isolated exits C3.9	Services must not penetrate fire isolated exits other than fire services or electrical wiring for lighting within the stair.	Note
Openings in fire isolated lift shafts C3.10	Doorways — If a lift shaft is required to be fire-isolated, an entrance doorway to that shaft must be protected by –/60/– fire doors that— i. comply with AS 1735.11; and ii. are set to remain closed except when discharging or receiving passengers, goods or vehicles.	Capable of compliance
	Lift indicator panels — A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than –/60/60 if it exceeds 35 000 mm2 in area.	
Bounding Construction: Class 2, 3 & 4 buildings C3.11	Not a Class 2, 3 of 4 building.	Not applicable
Openings in floors and ceilings for services C3.12	Openings in floors and ceilings will be required to be appropriately protected.	Capable of compliance
Openings in shafts C3.13	Openings in shafts will be required to be appropriately protected.	Capable of compliance
C3.14***	Deleted clause.	Not applicable
Openings for service installation C3.15	Penetrations of fire rated elements such as floor slabs and fire rated walls are required to be suitably protected by a tested approved system to ensure the fire rated integrity and insulation of the element is maintained.	Capable of compliance
Construction joints C3.16	Construction joints are to show compliance with this Clause.	Capable of compliance
Columns protected with lightweight	This clause simply provides guidance in the application of the BCA.	Note



construction to achieve an FRL C3.17		
	Specification C1.1 – Fire Resisting Construction	
General Require	ments	
2.1-2.3	These clauses give guidance on suitable methods.	Not applicable
Method of attachment not to reduce the fire-resistance of building elements – 2.4	The method of attaching or installing a finish, lining, ancillary element or service installation to a building element must not reduce the fire-resistance of that element to below that required.	Not applicable
General Concessions – 2.5	No instances where this occurs.	Not applicable
Mezzanine floors: Concession – 2.6	No instances where this occurs.	Not applicable
Enclosure of shafts – 2.7	 Shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that required for the walls of a non-loadbearing shaft in the same building, except that these provisions need not apply to— a) the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or b) the bottom of a shaft if it is non-combustible and laid directly on the ground. 	Capable of compliance
2.8 - 2.9	2.8 - Carparks in Class 2 and 3 buildings 2.9 - Residential aged care building: Concession	Not applicable
Type A Fire-Resis	ting Construction	
Fire resistance of building elements – 3.1	This clause gives guidance on the fire resisting building elements within Table A buildings.	Capable of compliance
Table 3 - Type A Construction: FRL of building elements	Please refer to the Appendix A for a detailed list of FRLs.	Capable of compliance
Specification C1	10 – Fire Hazard Properties	
Floor linings and floor coverings - 3	A floor lining or floor covering must have— a) a critical radiant flux not less than that listed in Table 2; and	Capable of compliance



	 b) in a building not protected by a sprinkler system complying with Specification E1.5, a maximum smoke development rate of 750 percent-minutes; and c) a group number complying with Clause 6(b), for any portion of the floor covering that is continued more than 150 mm up a wall. 	
	Class of building Class of building function the system complying with specification E1.5 Specification E1.5 Specification E1.5 Fire-isolated exits and fire control rooms	
	Class 2, 3, 5, 6, 7, 8 or 9b, excluding—2.21.22.2(i) Class 3 accommodation for the aged; and (ii) Class 9b as specified below.2.21.22.2	
Wall and ceiling lining – 4	 a) A wall or ceiling lining system must comply with the group number specified in Table 3 and for buildings not fitted with a sprinkler system complying with Specification E1.5 have— a smoke growth rate index not more than 100; or an average specific extinction area less than 250 m2/kg. b) A group number of a wall or ceiling lining and the smoke growth rate index or average specific extinction area must be determined in accordance with AS 5637.1. Class of building Fire-isolated exits and fire Public corridors Specific areas Other areas control rooms Wall/ceiling Wall Ceiling Wall Ceiling Wall/ceiling Class 2 or 3 Excluding accommodation for the aged, people with disabilities, and children Unsprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Class 3 or 9a Accommodation for the aged, people with a disability, children and health-care buildings Unsprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Class 5, 6, 7, 8 or 9b schools Unsprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3 Sprinklered 1, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3	Capable of compliance
Air-handling ductwork - 5	Rigid and flexible ductwork in a Class 2 to 9 building must comply with the fire hazard properties set out in AS 4254 Parts 1 and 2.	Capable of compliance
Lift car – 6	 Materials used as— i. floor linings and floor coverings must have a critical radiant flux not less than 2.2; and ii. wall and ceiling linings must be a Group 1 material or a Group 2 material in accordance with AS 5637.1. 	Capable of compliance
Other material – 7	Materials and assemblies in a Class 2 to 9 building not included in Clauses 3, 4, 5 or 6 must not exceed the indices set out in Table 4.	Capable of compliance



Section D – Access & Egress			
Part D1 Provision for escape			
Deemed to satisfy provisions D1.0	This clause provides guidance on the application of the BCA.	Note	
Application of Part D1.1	The Deemed-to-Satisfy Provisions of this Part do not apply to the internal parts of a sole-occupancy unit in a Class 2 or 3 building or a Class 4 part of a building.	Note	
Number of exits required D1.2	A compliant number of exits is provided.	Complies	
When fire- isolated stairways and ramps are required D1.3	All stairs are required to be fire isolated stairs.	Capable of compliance	
Exit travel distances D1.4	 Travel distances are exceeded in the following instances: Single travel distance (to exit of point choice to 2 exits) are exceeded in the following instances: a) Single travel distance to stair exceeds 20 m in warehouse 3 office suite (up to 37 m) b) Single travel distance to an exit exceeds 20 m in both office suites on Level 01 mezzanine (up to 38 m and 49 m respectively) c) Single travel distance to an exit exceeds 20 m in office suite on Level 02 mezzanine (up to 49 m) Total Travel Distances are exceeded in the following instances: d) Total travel distance to fire stair or final exit exceeds 40 (up to 56 m) from within warehouse 1 e) Total travel distance to an exit exceeds 40 (up to 56 m) from within warehouse 2 f) Total travel distance to an exit exceeds 40 (up to 56 m) from within warehouse 3 g) Total travel distance to an exit exceeds 40 (up to 56 m) from within warehouse 4 h) Total travel distance to an exit exceeds 40 (up to 56 m) from within warehouse 4 	Performance solution required	





	Layout of warehouses not known, therefore Travel distances are likely to increase due to racking layouts etc and will require re- assessment.	
	Where distances exceed the maximums, these are to be addressed as a Performance Solution by a fire engineer.	
Distance between alternative exits	The distance between alternative exits exceeds 60 m when measured through the point of choice:	Performance solution required
D1.5	ii. Up to 90 m within the basement car park.	
	Layout of warehouses are not known; therefore distances are likely to increase due to racking layouts etc and will require re- assessment.	
	Where distances exceed the maximums, these are to be addressed as a Performance Solution by a fire engineer.	
Dimension of exits and path of travel to exits D1.6	Minimum of 1m achieved to path of travel is achieved.	Complies
Travel via fire- isolated exits	Each fire isolated exit must have its own independent egress and discharge directly to a road or open space.	Capable of compliance
01.7	Where the fire stairs provide egress for two Warehouses then smoke lobbies are required.	
	There are many instances where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, that part of the wall must have—	
	(i) an FRL of not less than 60/60/60; and	
	(ii) any openings protected internally in accordance with C3.4, for a distance of 3 m above or below, as appropriate, the level of the path of travel, or for the height of the wall, whichever is the lesser.	



External stairways or ramps in lieu of fire-isolated exits D1.8	No instances where this occurs	Not applicable
Travel by non- fire-isolated stairways or ramps D1.9	No instances where this occurs.	Not applicable
Discharge from exits D1.10	An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it e.g. discharge points.	Capable of compliance
Horizontal exits D1.11	Not considered in this instance.	Not applicable
Non-required stairways, ramps or escalators D1.12	Not considered in this instance.	Not applicable
Number of Occupants D1.13	For the purposes of the Deemed-to-Satisfy Provisions, the number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by—	Note
	(a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D1.13 according to the use of that part, excluding spaces set aside for—	
	 (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or 	
	(b) any other suitable means of assessing its capacity.	
	At this stage of design and in accordance with Table D1.13 for numbers within office parts -1 person per 10 m ² ; and for Warehouse -1 person per 50 m ²), yet in most cases this will not be a true reflection.	
Measurement of distances D1.14	This clause provides guidance on the application of the BCA.	Note
Method of measurement D1.15	This clause provides guidance on the application of the BCA.	Note





Plant rooms, lift machine rooms and electricity network substations: Concession D1.16	Where the plant room does not exceed 100m ² ladder access is permitted.	Capable of compliance
Access to lift pits D1.17	Access to lift pits must be in accordance with this Clause where: (a) the pit depth is not more than 3 m, be through the lowest landing doors; or (b) where the pit depth is more than 3 m, be provided through an access doorway complying with the following:	Capable of compliance
Part D2 Construct	ion of Exits	
Deemed to satisfy provisions D2.0	This clause provides guidance on the application of the BCA.	Note
Application of Part D2.1	This clause provides guidance on the application of the BCA.	Note
Fire-isolated stairways and ramps D2.2	A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed— (a) of non-combustible materials; and (b) so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.	Capable of compliance
Non-fire isolated stairs and ramps D2.3	 Stairs should be constructed in accordance with one of the following: a) reinforced or prestressed concrete; or b) steel in no part less than 6 mm thick; or c) timber that— has a finished thickness of not less than 44 mm; and has an average density of not less than 800 kg/m3 at a moisture content of 12%; and has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue. 	Capable of compliance
Separation of rising and descending stair flights D2.4	There must be no direct connection between rising and descending flights at the level of egress	Capable of compliance
Open access ramps and balconies D2.5	No instances where this occurs	Not applicable



Smoke lobbies	A smoke lobby required by D1.7 must—	Capable of
02.0	(a) have a floor area not less than 6 m ² ; and	compliance
	(b) be separated from the occupied areas in the storey by walls which are impervious to smoke, and—	
	(i) have an FRL of not less than 60/60/– (which may be fire- protective grade plasterboard, gypsum block with set plaster, face brickwork, glass blocks or glazing); and	
	(ii) extend from slab to slab, or to the underside of a ceiling with a resistance to the incipient spread of fire of 60 minutes which covers the lobby; and	
	(iii) any construction joints between the top of the walls and the floor slab, roof or ceiling must be smoke sealed with intumescent putty or other suitable material; and	
	(c) at any opening from the occupied areas, have smoke doors complying with Clause 3 of Specification C3.4 except that the smoke sensing device need only be located on the approach side of the opening; and	
	(d) be pressurised as part of the exit if the exit is required to be pressurised under E2.2.	
Installation in exits and paths	Switchboards in exits and path of travel to be enclosed by non- combustible construction and smoke seals.	Capable of compliance
D2.7	The cupboards/risers located with the residential lobbies are to be enclosed with non-combustible construction or a fire rated protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure, if they services or equipment listed in this Clause e.g. distribution boards.	
Enclosure of space under stairs and ramps	(a) Fire-isolated stairways and ramps — If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space.	Capable of compliance
D2.0	(b) Non fire-isolated stairways and ramps — The space below a required non fire-isolated stairway (including an external stairway) or non fire-isolated ramp must not be enclosed to form a cupboard or other enclosed space unless—	
	(i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and	
	(ii) any access doorway to the enclosed space is fitted with a self- closing –/60/30 fire door.	
Width of required stairways and ramps D2.9	No instances where this occurs	Not applicable



Pedestrian ramps D2.10	No instances where this occurs	Not applicable
Fire-isolated passageways D2.11	No instances where this occurs at this stage of design.	Not applicable
Roof as open space D2.12	No instances where this occurs.	Not applicable
Goings and risers D2.13	Stairways must be provided to show compliance with this Clause.	Capable of compliance
Landings D2.14	Landings must have a slip resistance surface in accordance with Table D2.14. Table D2.14 Slip-resistance classification Met surface conditions Maplication Dry surface conditions Wet surface conditions Ramp steeper than 1:14 P4 or R11 P5 or R12 Ramp steeper than 1:20 but not steeper P3 or R10 P4 or R11 Tread or landing surface P3 or R10 P4 or R11 Nosing or landing edge strip P3 P4	Capable of compliance
Thresholds D2.15	This clause gives guidance on the only area a threshold can be incorporated at a doorway.	Capable of compliance
Barriers to prevent falls D2.16	This clause gives guidance on the provision of barriers and balustrades to stairs and landings	Capable of compliance
Handrails D2.17	Handrails are to be designed and installed to show compliance with these Clause.	Capable of compliance
Fixed platforms, walkways, stairways and ladders D2.18	Fixed platforms, walkways, stairways and ladders are to be designed and installed to AS1657.	Capable of compliance
Doorways and Doors D2.19	All required exit doors are swing doors.	Complies
Swinging Doors D2.20	A swinging door must open in the direction of egress	Complies
Operation of Latch D2.21	Exit doors and doors in the path of travel are required to be readily openable without a key by a single hand downward action or pushing action on a single device located between 900mm and 1.1m from the floor.	Capable of compliance



Re-entry from fire-isolated exits D2.22	 (a) Doors of a fire-isolated exit must not be locked from the inside of a fire-isolated exit serving any storey above an effective height of 25 m, throughout the exit. (b) The requirements of (a) do not apply to a door fitted with a fail-safe device that automatically unlocks the door upon the activation of a fire alarm and— (i) on at least every fourth storey, the doors are not able to be locked and a sign is fixed on such doors stating that re-entry is available; or (ii) an intercommunication system, or an audible or visual alarm system, operated from within the enclosure is provided near the doors and a sign is fixed adjacent to such doors explaining its purpose and method of operation 	Capable of compliance
Signs on doors D2.23	Signs required of fire doors must be in capital letters not less than 20 mm high in a colour contrasting with the background and state— i. for an automatic door held open by an automatic hold-open device— "FIRE SAFETY DOOR—DO NOT OBSTRUCT"; or for a self-closing door— "FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT OBSTRUCT DO NOT KEEP OPEN"; or ii. for a door discharging from a fire-isolated exit— "FIRE SAFETY DOOR—DO NOT OBSTRUCT"	Capable of compliance
Protection of openable windows D2.24	Not applicable to this building.	Not applicable
Timber stairways: Concessions D2.25	Not applicable to this building.	Not applicable
Part D3 Access fo	r People with Disabilities	
General Building access requirements D3.1	A Class 7b building requires access to and within all areas normally used by occupants.	Capable of compliance
Access to Buildings D3.2	 An accessway appears to be provided to a building required to be accessible— a) from the main points of a pedestrian entry at the allotment boundary; and b) From another accessible building connected by a pedestrian link c) from any required accessible carparking space on the allotment. Accessway are to be designed to AS1428.1. 	Capable of compliance



Parts of buildings to be accessible D3.3	As the building requires to be accessible— (a) every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with— (i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and (ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and (b) every passenger lift must comply with E3.6; and (c) accessways must have— (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and (ii) turning spaces complying with AS 1428.1— (A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and (d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and	Capable of compliance
Access Exemptions - D3.4	(e) a passing space may serve as a turning space No areas are considered exempt at this stage of design.	Note
Accessible Car Parking - D3.5	1 space for every 100 carparking spaces or part thereof is required and must show compliance with AS2890.6.	Capable of compliance
Signage D3.6	 Signage will be required to identify the following: accessible sanitary facilities ambulant sanitary facilities Signage to exit doors that require an exit sign is to be in accordance with D3.6 and include brail and tactile specifications. Signage must state – "EXIT" and "LEVEL"; An entrance that is not accessible 	Capable of compliance
Hearing Augmentation D3.7	No instances where this occurs	Not applicable





Tactile indicators D3.8	Tactile indicators in accordance with AS1428.4.1 2009 are required to stairways and ramps.	Capable of compliance
Wheelchair seating spaces in class 9b assembly buildings D3.9	No instances where this occurs	Not applicable
Swimming pools D3.10	No instances where this occurs	Not applicable
Ramps D3.11	No instances where this occurs (does not include vehicle ramp)	Capable of compliance
Glazing on accessways D3.12	Any glazing on an accessway that that is capable of being mistaken for a doorway must be clearly marked with a solid non-transparent contrasting line min 75mm positioned between 900- 1000mm above finished floor level. The line shall provide a minimum of 30% luminance contrast against the floor surface.	Capable of compliance

Section E – Services & Equipment				
Part E1 Fire Figl	Part E1 Fire Fighting Equipment			
Deemed to satisfy provisions E1.0	This clause provides guidance on the application of the BCA.	Note		
E1.1 ***	Deleted clause	Note		
E1.2 ***	Deleted clause	Note		
Fire Hydrants E1.3	A fire hydrants system is required and shall comply with AS 2419.1. Note: where there are travel distance non compliances there is likely to be non-compliant fire hydrant coverage	Capable of compliance		
Fire Hose Reels E1.4	A fire hose reel system is required to be designed and installed in accordance with AS2441-2005 Note: where there are travel distance non compliances there is likely to be non-compliant fire hose reel coverage.	Capable of compliance		
Sprinklers E1.5	A sprinkler system is required throughout the building (including the basement car park) as the building is deemed a large isolated building. The sprinkler fire brigade booster, including large bore suction point, is not be located in accordance with AS 2118.1-2017, being not at the boundary to the site nor adjacent to the principle vehicular access to the site.	Performance solution required		



	Consideration must be given 15 m storey height which would result in storage heights of over 9m and therefore the need for in rack sprinklers. Sprinklers are required to the existing building as per C2.3 above.	
Portable fire extinguishers E1.6	Fire extinguishers should be selected and installed to AS2444-2001.	Not applicable
E1.7 ***	Deleted clause	Note
Fire control centres E1.8	The building a floor area or more than 18,000 m ² and therefore requires a fire control centre. The fire control centre facility shown on plan must be designed and installed in accordance with Specification E1.8.	Capable of compliance
Fire	In a building under construction—	Note
during construction E1.9	(a) not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit; and	
	(b) after the building has reached an effective height of 12 m—	
	 (i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storeys; and (ii) any required booster connections must be installed. 	
Provision for special hazards E1.10	Not considered in this instance.	Not applicable
Part E2 Smoke I	Hazard Management	
Deemed to satisfy provisions E2.0	This clause provides guidance on the application of the BCA.	Note
Application of part E2.1	This clause provides guidance on the application of the BCA.	Note
General Requirements E2.2	Any air-handling system which does not form part of a smoke hazard management system and which recycles air from one fire compartment to another fire compartment should be designed to show compliance with this Clause.	Capable of compliance
	The building must be provided with—	
	 a) in each required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp, an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or 	



	 b) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building has more than one fire compartment; or c) an automatic smoke detection and alarm system complying with Specification E2.2a; or d) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification E1.5. The basement car park, provided with a mechanical ventilation system in accordance with AS1668.2 must comply with clause 5.5 of AS 1668.1 except that— (a) fans with metal blades suitable for operation at normal temperature may be used; and (b) the electrical power and control cabling need not be fire rated. For Large Isolated Buildings which exceeds 18 000 m² in floor area or 108 000 m³ in volume, the building must be provided with— (i) as the ceiling height of the fire compartment is more than 12 m—an automatic smoke exhaust system in accordance with Specification E2.2b 	
Provision for special hazards E2.3	Not considered in this instance.	Not applicable
Part E3 Lift Insta	allations	
Deemed to satisfy provisions E3.0	This clause provides guidance on the application of the BCA.	Note
Lift Installation E3.1	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification E3.1	Capable of compliance
Stretcher facility in lifts E3.2	A stretcher facility is required as the building has an effective height of more than 12 m.	Capable of compliance
Warning against use of lifts in fire E3.3	Lift signage is required. This clause gives guidance on the type of signage.	Note
Emergency lifts E3.4	The building has an effective height of less than 25 m therefore an emergency lift is not required.	Not applicable
Landings E3.5	Access and egress to and from lift well landings must comply with Section D above.	Capable of compliance



Passenger lifts E3.6	The lifts should be designed to show compliance with AS1735.12.	Capable of compliance
Fire service controls E3.7	Where lifts serve any storey above an effective height of 12 m, fire service controls are required.	Capable of compliance
Residential care buildings E3.8	Not a Class 9c building.	Not applicable
Fire service recall control switch E3.9	This clause provides guidance on the fire service recall control switch required by E3.7	Capable of compliance
Lift car fire service drive control switch E3.10	This clause provides guidance on the Lift car fire service drive control switch required by E3.7	Capable of compliance
Part E4 Visibility	in Emergency, Exit Signs and Warning Systems	
E4.1**	Deleted Clause	Note
Emergency Lighting requirements E4.2	Emergency lighting system shall be provided in accordance with AS2293.1-2005.	Capable of compliance
Measurement of distance E4.3	Distances, other than vertical rise, must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.	Note
Design and operation of emergency lighting E4.4	Every required emergency light must comply with AS/NZS 2293.1	Capable of compliance
Exit Signage E4.5	Exit Signs shall be provided in accordance with AS2293.1-2005.	Further information required
Direction signs E4.6	If an exit is not readily apparent to persons occupying or visiting the building, then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, foyers, auditoria, and the like, indicating the direction to a required exit.	Note
Class 2 & 3 buildings and Class 4 parts: Exemptions E4.7	Not a Class 2, 3 or 4 building.	Not applicable





Design and operation of exit signs E4.8	The exit signs should be provided in accordance with AS2293.1-2005.	Capable of compliance
Emergency warning and intercom systems E4.9	An emergency warning and intercom system complying where applicable with AS 1670.4 is not required as the building has an effective height of less than 25 m.	Not applicable

Section F – Health & Amenity			
Part F1 Damp &	Part F1 Damp & Weatherproofing		
Deemed to satisfy provisions F1.0	This clause provides guidance on the application of the BCA.	Note	
Stormwater drainage F1.1	A stormwater drainage system in accordance with AS/NZS 3500 is required.	Capable of compliance	
F1.2**	This clause has been deleted.	Note	
F1.3**	This clause has been deleted.	Note	
External above ground membranes F1.4	Waterproofing membranes for external above ground use must comply with AS 4654 Parts 1 and 2.	Capable of compliance	
Roof coverings F1.5	The roof coverings are to comply with the requirement of this Clause.	Capable of compliance	
Sarking F1.6	Any sarking proposed should show compliance with AS/NZS 4200 Parts 1 & 2.	Capable of compliance	
Waterproofing wet areas F1.7	Waterproofing to wet areas is required and comply with this Clause and AS3470.	Capable of compliance	
F1.8	This clause has been deleted.	Note	
Damp- proofing F1.9	Damp proofing is required to be provided in compliance with this Clause.	Capable of compliance	
Damp- proofing of floors on the ground F1.10	Damp proofing is required to be provided in compliance with this Clause.	Capable of compliance	



Provision of floor wastes F1.11	Not applicable to this building.	Not applicable
Subfloor ventilation F1.12	Not applicable to this building.	Not applicable
Glazed assemblies F1.13	This clause gives guidance on the compliance requirements of glazed assemblies. Requires openings to comply with the AS 2047 requirements for resistance to water penetration.	Capable of compliance
Part F2 Sanitary	& Other Facilities	
Deemed to satisfy provisions F2.0	This clause provides guidance on the application of the BCA.	Note
Facilities in residential buildings F2.1	Not applicable to this building	Not applicable
Calculation of number of occupants and facilities F2.2	The number of sanitary facilities will be provided in accordance with Table F2.3	Capable of compliance
Facilities in Class 3-9 buildings F2.3	Refer to table F2.3	Not applicable
Accessible sanitary facilities F2.4	Ambulant sanitary facilities are required to the male and female sanitary facilities in accordance with Clause 16 of AS1428.1-2009.	Capable of compliance
Construction of sanitary compartments F2.5	Lift off hinges are required to some of the bathrooms where the door is within 1200mm of the WC.	Capable of compliance
Interpretation : Urinals and washbasins F2.6	This clause gives guidance on the compliance requirements	Not applicable
Microbial; (legionella) control F2.7	This clause is deleted in NSW.	Note



Waste management F2.8	Not a class 9a or 9c building.	Not applicable
Accessible adult changing facilities F2.9	Not applicable to this building	Not applicable

Part F3 Room Heights			
Height of rooms and other spaces F3.1	 Ceiling heights are to be as follows: In a class 5 and 7b building- Generally, 2.4 m or For corridors, passageways or the like 2.1 m sanitary facilities, airlock, store, car parking area – 2.1 m Above a stairway, ramp, landing or the like – 2.0 m Note: ceiling heights within car parks must be to AS2890.6 	Capable of compliance	
Part F4 Light an	d Ventilation	L	
Provision of natural light F4.1	Not applicable to this building.	Not applicable	
Methods and extent of natural light F4.2	This clause provides guidance on the achieving natural light requirements.	Not applicable	
Natural light borrowed from adjoining room F4.3	This clause provides guidance on the application of the BCA.	Not applicable	
Artificial Lighting F4.4	The artificial lighting system to comply with AS1680.0.	Capable of compliance	
Ventilation of Rooms F4.5	 Ventilation of habitable rooms must be achieved through either: Natural ventilation – 5 % of floor area of room; or Mechanical ventilation in accordance with AS1668.2 and AS3666.1 	Capable of compliance	
Natural ventilation F4.6	Where natural ventilation is proposed this should comply with the requirements of this Clause.	Not applicable	



Ventilation borrowed from adjoining room F4.7	In any instances where this occurs details to show compliance with this Clause will be required.	Not applicable	
Restrictions on location of sanitary compartments F4.8	No instances where this occurs	Not applicable	
Airlocks F4.9	No instances where this occurs	Not applicable	
F4.10***	Deleted clause	Note	
Car parks F4.11	Ventilation of the carpark will be required to show compliance with this Clause (natural ventilation to AS1668.4 or mechanical to AS1668.2).	Capable of compliance	
Kitchen local	Not applicable at this stage of design.	Not applicable	
ventilation F4.12	Future provision may occur for retail use (e.g. cafés)		
Part F5 Sound T	ransmission and Insulation		
F5.1 – F5.7	Consider not applicable to this proposal F5.1 - Application of Part F5.2 - Determination of airborne sound insulation ratings F5.3 - Determination of impact sound insulation rating F5.4 - Sound insulation rating of floors F5.5 - Sound insulation rating of walls F5.6 - Sound insulation rating of internal service F5.7 - Sound isolation of pumps	Not applicable	
Part F6 Condensation Management			
Deemed to satisfy provisions F6.0	The Deemed-to-Satisfy Provisions of this Part only apply to a sole- occupancy unit of a Class 2 building and a Class 4 part of a building.	Note	
Application of Part F6.1	Not applicable to this building: <i>F6.1 Application of Part</i> <i>F6.2</i> Pliable building membrane F6.3 Flow rate and discharge of exhaust systems F6.4 Ventilation of roof spaces	Not applicable	



Section G – Ancillary Provisions			
Part G1 – G6			
	Not applicable to this building:	Not applicable	
	 Part G1 Minor structures and components Part G2 Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues Part G3 Atrium construction Part G4 Construction in alpine areas Part G5 Construction in bushfire prone areas Part G6 Occupiable outdoor areas 		

Section H – Special use buildings			
Part H1 – H3			
	Consider not applicable – not a Special use building' Part H1 Class 9b buildings Part H2 Public transport buildings Part H3 Farm buildings and farm sheds	Not applicable	

Section J – Energy Efficiency			
Part J1 Building Fabric			
J1.1 - J1.6	Provide Section J Report to indicate compliance with this Part.	Further information required	
Part J2 ***			
	This clause has been deleted	Note	
Part J3 Building	Sealing		
J3.1 - J3.7	Provide Section J Report to indicate compliance with this Part.	Further information required	
Part J4 * * * *			
Part J5 Air Conditioning and Ventilation System			
J5.1- 5.12	Provide Section J Report to indicate compliance with this Part.	Further information required	
Part J6 Artificial Lighting and Power			
J6.1 – 6.8	Provide Section J Report to indicate compliance with this Part.	Further information required	



Part J7 Heated Water Supply and Swimming Pool and Spa Pool Plant				
J7.1***	This clause has been deleted No			
J7.2 – J7.4	Consider not applicable to this proposal J7.2 – Heated water supply J7.3 – Swimming pool heating and pumping J7.4 - Spa pool heating and pumping	Not applicable		
Part J8 Facilities For Energy Monitoring				
J8.2	* * * *	Note		
Facilities for energy monitoring J8.3	Provide Section J Report to indicate compliance with this Part.	Further information required		



3.0 FIRE SAFETY MEASURES

Note: to be updated as design progresses

System	BCA Clause & Australian Standard		
Access Panels, doors and hoppers to fire-resisting shafts	BCA Clause C3.13, C3.16 & AS1530		
Automatic fail-safe devices	BCA D2.21		
Automatic Fire Detection and Alarms systems	BCA E2.2, Specification E2.2a AS 1670.1-2018		
Automatic smoke exhaust system	BCA E2.2, Specification E2.2b & AS1668.1-2015		
Automatic Suppression System (sprinklers)	BCA E1.6 & AS2118.1-2017		
Emergency Lighting	BCA E4.4, E4.8, AS/NZS 2293.1-2018		
Exit Signs	BCA Clause E4.5 & AS/NZS 2293.1-2018		
Fire Control Centre	BCA Clause E1.8, Spec E1.8		
Fire Dampers	AS1668.1-2018		
Fire Doors	BCA C3.6, Specification C3.4 & AS 1905.1-2015, AS1905.2-2005, AS1735.11-1999		
Fire Hose Reels Systems	BCA Clause E1.4 & AS 2441-2005		
Fire Hydrants Systems	BCA Clause E1.3 & AS 2419.1-2005		
Fire seals protecting openings in fire-resisting components of the building	BCA Clause C3.15, AS1530, AS4072.1-2005		
Lightweight Construction	BCA C1.8		
Mechanical air handling systems	BCA C2.12, C3.15, D1.7, E2.2, AS1668.1-2018		
Perimeter vehicle access for emergency vehicles	BCA C2.3 & C2.4		
Portable Fire Extinguishers	BCA Clause E1.6 & AS 2444-2001		
Smoke & heat vents (TBC)	AS2665-2001		
Warning and operational signs	BCA D2.23		
Fire Engineering	ТВА		



4.0 APPENDIX A – FRL TABLES

Type A Construction – FRL of Building Elements

Building element	Class of building — FRL: (in minutes)				
-	Structural adequacylIntegritylInsulation				
	2, 3 or 4 part	5, 7a or 9	6	7b or 8	
EXTERNAL WALL (including any column and other building element incorporated within it) or other external building					
element, where the distance from	element, where the distance from any fire-source feature to which it is exposed is-				
For loadbearing parts-			-		
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180	240/240/240	
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120	240/240/180	
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/90	240/180/90	
For non-loadbearing parts-					
less than 1.5 m	-/ 90/ 90	-/120/120	-/180/180	-/240/240	
1.5 to less than 3 m	-/ 60/ 60	-/ 90/ 90	-/180/120	-/240/180	
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-	
EXTERNAL COLUMN not incorpo	prated in an external	wall—			
For loadbearing columns-	90//	120/-/-	180/-/-	240/-/-	
For non-loadbearing columns-	-/-/-	_/_/_	_/_/_	_/_/_	
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 I	obbies and the like-				
Loadbearing	90/ 90/ 90	120/-/-	180/-/-	240/-/-	
Non-loadbearing	-/ 60/ 60	-/-/-	-/-/-	-/-/-	
Between or bounding sole-occupa	ncy 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	