

Our Ref: D2016-079

23 March 2017

RESIDENTIAL AGED CARE FACILITY

CASULA

BUILDING CODE OF AUSTRALIA 2016

CAPABILITY STATEMENT FOR DA SUBMISSION

Prepared for



Table of Contents

- 0.0 Author and Reviewer3**
- 1.0 Executive Summary3**
- 2.0 Property Description.....4**
 - 2.1 Location4
 - 2.2 Building Description.....4
- 3.0 Building Code of Australia Assessment5**
 - 3.1 Fire Resistance and Stability (Section C, BCA)5
 - 3.2. Access and Egress (Section D, BCA).....7
 - 3.3. Services and Equipment (Section E, BCA)10
 - 3.4. Health and Amenity (Section F, BCA)12
 - 3.5. Ancillary Provisions (Section G, BCA)14
 - 3.6. Energy Efficient Construction (Section J, BCA)14
- 4. Fire Safety and Other Measures16**
 - 4.1. Proposed Fire Safety Measures16
- 5. Conclusion16**
- 6. References.....17**

0.0 Author and Reviewer

Document acceptance

Author		Position	Date
Prepared by	Dean Morton	Director	23/03/2017

Revision history

Revision No.	Reviewed by	Description	Date
R01	Dean Morton	Draft	6/02/2017
R02	Dean Morton	Final	23/03/2017

1.0 Executive Summary

This report has been prepared so as to assess the architectural documentation as detailed in Part 6 in accordance with the Building Code of Australia Volume 1 (BCA) 2016 and adopted standards.

The proposed development is the construction of a three storey residential aged care building incorporating 144 resident beds and including associated car parking.

The assessment has revealed that the proposed development will be capable of achieving compliance with BCA 2016. The following matters will require further consideration during detailed design development at the construction stage of the project:

1. The building is to adopt type A construction throughout.
2. The RACF portion is to be sprinkler protected with a residential sprinkler system.
3. The car park and loading dock are to adopt class 7a and be fire separated from the RACF portion with a fire wall achieving a FRL of minimum 120/120/120.
4. The RACF portion is to be divided into smoke compartments with floor areas not exceeding 500m².
5. There are extended distances to a point in choice in travel and between alternate exits to levels 1 and level 2 and are to be subject to a performance solution at the construction certificate stage.
6. Handrails are to be provided to both sides of the resident use corridors.
7. There are to be a minimum of 7 accessible SOU's
8. The form of acoustic separation between SOU's is to be in accordance with Part F5

2.0 Property Description

2.1 Location

The subject building is located at the corner of Marsh Parade, Hume Highway and Lang Road in Casula. The property is bounded by residential development to the eastern boundary. The property is taken to face west to Hume Highway for the purpose of the report.

2.2 Building Description

Use / Classification	Class 9c: Class 7a:	Residential aged care facility (lower ground, ground, level 1) Car park, (lower ground)
Rise in Storeys	The development will have a rise of three storeys	
Floor Area	The following are maximum floor areas of fire compartments applicable to the Class 9c and 7a portions (assuming the car park areas are not sprinkler protected).	
	Class 9c - Maximum floor area of Class 7a - Maximum floor area of	8,000m ² 5,000m ²
	Class 9c and 7a portions do not exceed the maximum size of fire compartments in table C2.2 of the BCA 2016	
Volume	The following are maximum volumes of fire compartments applicable to the Class 9c and 7a portions (assuming the car park areas are not sprinkler protected).	
	Class 9c - Maximum volume of Class 7a - Maximum volume of	48,000m ³ 30,000m ³
	Class 9c and 7a portions do not exceed the maximum size of fire compartments in table C2.2 of the BCA 2016	
Effective Height	The building will have an effective height of 8.3m (RL45.8m - RL37.5m)	
Type of Construction	The building requires Type A Construction.	
Climate Zone	For the purposes of Section J the climate zone is 6	
Population	<p>The population as determined from table D1.13 is:</p> <p>Car park – 21 persons Loading dock – 10 persons Ground floor staff areas – 33 persons</p> <p>Note that the BCA does not have under table D1.13 floor space ratios for the resident use areas of the RACF portion, in this regard based on bed numbers indicated the resident population will be:</p> <p>Ground floor – 72 persons Level 1 – 72 persons</p>	

Building Code of Australia Assessment

2.3 Fire Resistance and Stability (Section C, BCA)

Fire Resistance

The building is to comply with Clause C1.1 and Clause 2 & 3 of Specification C1.1, for a building required to have Type A construction. Refer to Table 3 of Specification C1.1 of the BCA for the specific Fire Resistance Levels [FRL's].

Structural: the ability to maintain stability and adequate load-bearing capacity as determined by AS 1530.4.

Integrity: the ability to resist the passage of flames and hot gases specified in AS 1530.4.

Insulation: The ability to maintain a temperature on the surface not exposed to the furnace below the limits specified in AS 1530.4.

FRL's are generally as follows.

Building component	Class 9c/7a
External walls- load bearing (0 > 1.5m from FSF)	120/120/120
External walls- load bearing (1.5 > 3.0m from FSF)	120/90/90
External walls- load bearing (<3.0m from FSF)	120/60/30
External walls non load bearing (0 > 1.5m from FSF)	-/120/120
External walls non load bearing (1.5 > 3.0m from FSF)	-/90/90
External walls non load bearing (<3.0m from FSF)	-/-/-
External column	120/-/-
Shaft walls (lift and stairs)- load bearing	120/120/120
Shaft walls (lift and stairs)- non load bearing	-/120/120
Service shafts- load bearing	120/90/90
Service shafts- non load bearing	-/90/90
Common walls and fire walls	120/120/120
Walls bounding between SOU (load bearing)	120/-/-
Walls bounding between SOU (non load bearing)	-/-/-
Load bearing internal walls and columns	120/-/-
Loading bearing columns and walls in top most storey	n/a
Floors	120/120/120
Roofs	n/a

Lightweight construction & fire hazard properties

Where lightweight fire rated construction is proposed for walls, the system must comply with Specification C1.8 of the BCA and the manufactures tested specification.

Columns protected with lightweight fire rated construction that are subject to mechanical damage must be protected and/or internally filled in accordance with Clause C1.8 (b) of the BCA.

The fire hazard properties of floor, wall and ceiling linings are to comply with Part C1.10 and Specification C1.10 of the BCA. All materials selected for use in the construction should be accompanied by a valid test report demonstrating compliance with defined fire hazard properties

Compartmentation & separation

The RACF portion is required to be separated into smoke compartments of maximum 500m², plans are to be amended to reflect all smoke compartments and areas of each for further review. It is noted that there is to be a minimum height above doors in smoke walls of 400mm to form a reservoir as per Specification C2.5 and C3.4.

Ancillary use areas including the kitchen (exceeding 30m²), laundry (where gas fired dryers are used) and store rooms exceeding 10m² used for the storage of medical records are to be smoke separated from resident use areas. The back of house areas to the lower ground floor in general is to form a separate smoke compartment and contain the majority of the ancillary use areas. The lower ground floor compartment where incorporating the lift as part of the bounding construction will require assessment as an alternate solution where landing doors do not achieve compliance with Specification C3.4. Doors to smoke compartments in resident use areas are generally to be dual swing type to swing in the path of travel of egress, where in the staff use areas and not swinging in the path of travel are to be assessed as part of an alternate solution.

The bounding wall between the car parking/loading dock areas and the remainder of the RACF portion to the lower ground floor is to be fire rated to a minimum FRL of 120/120/120 and have all penetrations fire sealed (separation of sprinkler to non sprinkler protected parts). The wall is also to form smoke separating construction as part of the lower ground floor smoke compartmentation.

Internal non load bearing walls between SOU's and between an SOU and a public corridor are to be lined each side with minimum 13mm standard grade plasterboard, if insulated to have only non-combustible insulation material, extend to the underside of the floor/ceiling formed of 13mm plasterboard/to underside of the roof and be sealed at the top and bottom with intumescent putty or caulking.

Protection of Openings

There are no openings within 3m to a fire source feature that will require protection in accordance with the provisions contained within Part C3 of the BCA.

Lift landing doors must achieve an FRL not less than -/60/- in accordance with Clause C3.12 of the BCA and AS 1735.11.

All entry doors to fire isolated stairs must be protected by self-closing -/60/30 fire doors.

Vertical Separation of openings

Spandrel separation between floors is not required for the sprinkler protected portions of the building, where sprinklers are omitted from the car park the openings formed for ventilation and roller shutter entries will require spandrel separation to the level 1 external walls and windows above will be required.

Fire sealing of penetrations

All service penetrations must be sealed to the requirements of Clause C3.12 and C3.15 of the BCA

Electrical Supply

It is noted to plans that both the electrical substation and main switch are located external to the building and therefore satisfying the BCA in respect of fire protection where internal the building.

Protection of Equipment

The following equipment is to be fire separated with construction complying with Clause C2.12 (d) of the BCA.

- (i) lift motors and lift control panels; or
- (ii) emergency generators used to sustain emergency equipment operating in the emergency mode; or
- (iii) boilers; or
- (iv) a battery or batteries installed in the building that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours.

Separation of on-site fire pumps must comply with the requirements of AS 2419.1-2005.

3.2. Access and Egress (Section D, BCA)

Number of exits required

It is noted that there is to be a minimum of 2 exits provided to any storey containing sleeping areas of the class 9c part, in this regard the design is compliant for the ground and level 1 design. The lower ground is required to have at least one exit, this is considered compliant also.

Exit travel distances

Exit travel distances to a required exit or a point of choice between exits generally comply with Clause D1.4 of the BCA. In this regard travel distances generally do not exceed 20m to a point in choice in travel and 40m to an exit. There is an extended travel distance to a point in choice in travel to the terrace area of Cluster 3 up to 25m that is to be assessed as a performance solution at the construction certificate stage as advised by the client.

Distance between alternative exits

The distance between alternative exits generally comply with Clause D1.5 of the BCA, in this regard the distance between exits does not generally exceed 60m it is noted that clusters 1 and 4 will have a distance between exits up to 70m that is to be assessed as a performance solution at the construction certificate stage as advised by the client.

Travel via fire isolated exits

The point of discharge from the fire-isolated exit (fire stair) located at the ground floor, and the path of travel to the open space is required to be protected as with D1.7 of the BCA where openings are within 6m at right angles to the path of travel to a height of 3m above and below the path. The method of protection is to be as per clause C3.4 and where drenchers are used they are to be located internally.

It is noted that there will be performance solutions relating to the fire rating of walls and protection of windows along the path of travel where egress a minimum of 6m off the external wall on alternate sides of cluster wings is made possible.

Dimensions of exits and doors in the path of travel

Exits and paths of travel to exits are to comply with D1.6 of the BCA. Generally exits widths are 1m in width clear of any obstruction including hand rails or other fixtures. Reductions in width are available at doorways to not less than 750mm clear to the car park and loading dock areas

Within the RACF portion it is noted the minimum 1500mm between handrails to public corridors is readily achievable and 1800mm width at the doorway at access to the SOU's. The unobstructed width of the doorway to each resident SOU is to be 1070mm and where one leaf is fixed the operable leaf is to have a clear width of 870mm. doors in general resident use areas are to have a minimum clear width of 870mm and 800mm in non resident use areas.

The unobstructed width of a required exit must not diminish along the path of travel to a road, egress paths are to be defined in association with protection of egress paths.

Construction of Stairways

Goiings and risers are to be designed to comply with the provisions of Clause D2.13 of the BCA and to generally achieve a minimum going of 250mm and maximum rise of 190mm.

There is to be no step or ramp within the width of the door leaf to a door threshold unless it is an external door in which the maximum step is not to exceed 25mm and the change of level includes a ramp with a maximum gradient of 25mm.

Handrails

Handrails will be provided to stairways as required by Clause D2.17 of the BCA and clauses 11.1(f) and (g) of AS 1428.1-2009, for fire isolated stairs this can be limited to one side only and include contrasting nosings and as per AS 1428.1-2009.

Handrails are to be provided to each side of the public corridors within the RACF portion.

Balustrades

Balustrades will be provided for all areas where it is possible to fall more than 1m from the floor level to a lower surface. In general balustrades are to have no gap that will permit a 125mm diameter sphere to pass through, balustrades protecting a difference in levels of over 4m must not have horizontal elements between 150mm and 760mm above the floor that facilitate climbing.

Balustrades within fire isolated stairways may be constructed with three horizontal rails with gaps up to 460mm (bottom rail max 150mm above the nosing line or floor). Compliance can be readily achieved and is to be further detailed at the construction certificate stage.

Egress Doors

All exit doors will swing in the direction of egress and are required to be provided with the appropriate hardware in accordance with Clauses D2.20 & D2.21 of the BCA, the latches will be downward or pushing action on a single device located between 900-1100mm above floor level.

Any door automatic door acting as an exit door (final discharge door) will be required to be fitted with fail safe operation to open automatically on activation of any smoke/fire detection system or sprinklers.

Protection of openable windows

For all windows where the fall exceeds 4m from floor level to the surface below the sill height is to be minimum 865mm above floor level or a balustrade or similar provided in front of the opening.

Access for people with a disability

The proposed building is required to comply with the following:

- The Disability (Access to Premises — Buildings) Standards 2010;
- Part D3 of BCA;
- Australian Standard AS 1428.1-2009 , AS/NZS 1428.4.1-2009, AS/NZS 2890.6-2009

Buildings and parts of buildings must be accessible as required by Table D3.1, unless exempted by D3.4, which requires access as follows:

Class 7a – To and within any level containing accessible car parking spaces.

Class 9c – From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.

- To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.
- Where a ramp complying with AS 1428.1 or a passenger lift is installed—
 - (a) to the entrance doorway of each sole-occupancy unit; and
 - (b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.
- Note that access is not required to be provided to staff areas however it is recommended to be where reasonably capable of being achieved.
- There are to be a minimum of 7 SOU's being accessible to and within in accordance with AS 1428.1-2009
- Note that tactile indicators are not required to be provided to ramps in the class 9c part and raised domed buttons under AS 1428.1 may be provided in lieu to handrails

The following areas are identified with respect to further review for accessibility:

- Lifts are to comply with AS 1735.12 and have an internal lift car dimension of 1100 x 1400mm and a clear doorway opening width of 900mm (refer to requirements for stretcher facilities also)
- It is unlikely that the fire stair configuration without an offset tread to the rising flight will permit a compliant handrail, handrails are required to maintain a consistent height throughout the flight between the flight and landings.
- The fire isolated exits are to have a handrail to one side being 30-50mm in diameter and have contrasting nosings being 50-75mm wide as per clause 11.1(f)&(g) of AS 1428.1-2009
- Accessible parking spaces are to incorporate signage as per AS/NZS 2890.6 to the nominated parking spaces.

3.3. Services and Equipment (Section E, BCA)

Hydrant Systems

The building is required to be provided with a system of hydrant coverage in accordance with the provisions of Clause E1.3 of the BCA and AS 2419.1- 2005.

Coverage can be readily achieved and is subject to design from a suitably qualified person.

Hose Reel Systems

The building will be provided with a fire hose reel system in accordance with the provisions of Clause E1.4 of the BCA and AS 2441 - 2005. This system must cover the car park and loading dock parts of the development.

Locations of fire hose reels are required to be located 4m from an exit.

Coverage can be readily achieved and is subject to design from a suitably qualified person.

Portable Fire Extinguishers

Fire extinguishers are to be provided in accordance the provisions of Clause E1.6 of the BCA and AS2444 - 2001. Within the class 9c RACF portion extinguishers are to be selected and installed as per AS 2444-2001 and cover A and E type fire risks and be located at each nurses or supervisors station.

Exit and Emergency Lighting

Emergency lighting will be provided throughout the building in accordance with Part E4 of the BCA and AS 2293.1.2005

Lifts

A stretcher lift in accordance with Clause E3.2 of the BCA will be required to the class 9c aged care portion (this is not a requirement of the class 2 ILU lift). Stretcher facility dimension to be achieved are 600mm wide x 2000mm long x 1400mm high above floor level. A sign must be provided in accordance with Clause E3.3 of the BCA warning against the use of lifts in a fire.

Compliance with Specification E3.1 is required for an electric or electrohydraulic lift installation

Every passenger lift is to be provided with handrails, minimum internal floor dimensions, clear door opening dimensions and car control buttons in accordance with AS1735.12 and be fitted with a series of sensory devices per clause E3.6 of the BCA.

Sprinklers

Within the class 9c RACF a sprinkler system complying with AS 2118.4-2012, there must be a monitored main stop valve and have a permanent data link to a monitoring service. It is assumed that the car park and loading dock will not be provided with sprinklers.

Coverage can be readily achieved and is subject to design from a suitably qualified person.

Smoke Hazard Management

The building is to be provided with the following smoke control measures:

- Class 7a: The mechanical exhaust system of the car park areas is to comply with clause 5.5 of AS/NZS 1668.1 except that metal blade fans suitable for operation at normal temperature with non fire rated control cabling may be used where not naturally ventilated.
- Class 9c: An automatic smoke detection and alarm system in accordance with Clause 4 of Specification E2.2a and AS 1670.1-2004. There is to be system monitoring of the smoke detection system to clause 7 of Specification E2.2a and AS 1670.3-2004. There is to be manual call points located in paths of travel such that no point on the floor is further than 30m from a call point. There are to be mimic panels (or remote annunciator panels) to each smoke compartment.
- Building occupancy warning system as per clause 6 of Specification E2.2a and clause 3.22 of AS 1670.1-2004 installed to sound throughout the entire building to all occupied parts.

Note it is proposed to undertake a performance solution with regards to the deletion of the required stair pressurization system from the fire isolated exits as advised by the client.

3.4. Health and Amenity (Section F, BCA)

Damp and Weatherproofing

Adequate measures will be employed to ensure compliance Part F1 of the BCA is achieved in terms of weatherproofing.

Sanitary and Other facilities

Sanitary facilities for the residents will be provided within each SOU. Within the RACF portion there is to be a fixed or mobile bath provided, two slopoppers and pan disinfectors each on the ground and level 1 and nine clinical hand wash basins in total.

Facilities for staff are required, staff numbers are not known however proposed facilities will provide a maximum population of males being 25 and females being 75.

Sanitary Facilities for People with Disabilities

It is noted that common area banks of male and female toilets are not proposed, in which case accessible sanitary compartments to common areas are not required. It is noted that accessible facilities will be provided for staff.

Ceiling Heights

The following minimum building ceiling heights must be maintained.

- Common kitchen, laundry or the like – 2.1m
- Corridor, passageway or the like (RACF portion) – 2.4m
- Bathroom, shower, sanitary compartment or the like – 2.1m
- Habitable rooms including common areas – 2.4m
- Stairways – 2.0m
- Car parking areas – 2.2m (for disabled accessible spaces min 2.5m)

Note- ceiling heights in the RACF portion are to be sufficient to enable a minimum 400mm smoke reservoir above the doorway in any smoke wall construction, this is also applicable where any smoke wall is formed near service areas such as serveries that may require additional services in the ceiling void (which may result in a lower ceiling height to these areas).

Natural and Artificial Lighting

Natural lighting is to be provided class 2 ILU's to habitable rooms and to sleeping areas of the class 9c portion. Furthermore sill heights of the RACF portion within the SOU's are not exceed 1000mm above floor level.

Artificial lighting may be provided throughout the car park portion of the building in accordance with the provisions of Clause F4.4 of the BCA and AS1680.0.

Ventilation

The building is required to be provided with ventilation in accordance with the provisions of Clause F4.5 of the BCA. Ventilation may be provided by natural means or a mechanical system complying with AS 1668.2-2012.

Sound Transmission and Insulation

Class 9c:

The floor separating the residential units and separating the sole occupancy units from public areas must achieve a sound insulation rating of R_w not less than 45.

A wall must have an R_w not less than 45 if it separates—

- (i) *sole-occupancy units*; or
- (ii) a *sole-occupancy unit* from a kitchen, bathroom, *sanitary compartment* (not being an associated ensuite), laundry, plant room or utilities room

Soil, waste & stormwater services must be separated by construction having an R_w+C_{tr} (airborne) not less than

- 40 if the room is a habitable room
- 25 if the room is a non-habitable room

3.5. Ancillary Provisions (Section G, BCA)

Cleaning of Windows

As per NSW Clause G1.101 a building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level.

This is satisfied where—

- (i) the windows can be cleaned wholly from within the building; or
- (ii) provision is made for the cleaning of the windows by a method complying with the Work Health and Safety Act 2011 and regulations made under that Act.

3.6. Energy Efficient Construction (Section J, BCA)

The following BCA Section J provisions are applicable to the class 7a car parking and class 9c RACF portions:

Building Fabric

Parts of the building forming an envelope to a conditioned space are to achieve the minimum construction requirements for insulation R-Values required by BCA Part J1

In general the external walls to the envelope are to achieve R2.8, internal walls bounding a non-conditioned space R1.8 and the roof/ceiling R3.2 (downwards). Floors separating non conditioned car park areas are to achieve R2.0 (to be confirmed if air changed exceed 1.5 per hour, if less than this may reduce to R1.0)

Note that reductions in overall R values may be achieved for wall as per table J1.5a relative to orientation or wall construction.

Glazing

The energy efficiency of the selected glazing must comply with Part J2 of the BCA as appropriate to Climate Zone 6 and the orientation, exposure and shading of the window.

Building Sealing

Openings in the building such as doors, windows, exhaust fans and ventilation systems forming part of an envelope to a conditioned space must be sealed to the requirements of Part J3 of the BCA to prevent loss of conditioned air.

In that regard, all external doorways and windows must be fitted with a draft seal, exhaust fans to have dampers, there are to be tight fitting skirting boards, cornices and architraves. The requirement for seals does not apply to fire doors fitted between the fire-isolated stairways in the conditioned areas of the building.

Air-conditioning and Ventilation System

The design of all mechanical air-conditioning and ventilation systems must achieve compliance with Part J5 of the BCA with regard to input power and efficiency features.

Artificial Lighting and Power

The building is to maintain maximum lighting power levels and control systems as applicable. The design of lighting systems must comply with BCA Part J6.

Maximum illumination power densities for the car parking and ancillary use areas are to be as follows:

- First 20m of entry to car park 25 W/m²
- Generally throughout car park 6 W/m²
- Plant rooms 5 W/m²

Maximum illumination power densities for the RACF and ancillary use areas are to be as follows:

- Common lounge areas 10 W/m²
- Within a SOU 7 W/m²
- Common corridors 8 W/m²
- Kitchen areas 8 W/m²

Hot Water Supply

Hot water supply systems will be installed in accordance with Part J7 of the BCA and AS/NZS 3500.4 and incorporate insulation to inlet and outlet lines of hot water storage units.

Access for Maintenance and Facilities for Monitoring of Energy Use

The building is to have facilities for maintenance and energy monitoring in compliance with BCA Part J8 and the NSW variations.

4. Fire Safety and Other Measures

4.1. Proposed Fire Safety Measures

In terms of the proposed works the following fire safety measures are proposed to be installed;

Fire Safety Measure	Standard of Performance
Access panels, doors and hoppers to fire-resisting shafts	BCA 2016 Clause C3.13
Automatic fail safe devices	BCA 2016 Clause D2.19, Spec C3.4, AS 1670.1- 2015
Automatic fire detection and alarm system	BCA 2016 Clause, E2.2, Spec. C3.4, Spec. E2.2a, AS 1670.1-2015
Automatic fire suppression system	BCA 2016 Clause E1.5, Spec. E1.5, AS 2118.4-2012
Emergency lighting	BCA 2016 Clause E4.2 & E4.4, AS 2293.1-2005
Exit and directional signage	BCA 2016 Clause E4.4, E4.5, (NSW E4.6) & E4.8, AS 2293.1-2005
Fire alarm monitoring system	BCA 2016 Spec E2.2a, AS 1670.3-2004
Fire dampers	BCA 2016 Clause E2.2, AS/NZS 1668.1-2015, AS 1682.2-1990
Fire doorsets	BCA 2016 Clause C3.5, C3.8, AS 1905.1-2015
Fire Engineering Report	Report prepared by: TBA
Fire hydrant systems	BCA 2016 Clause C2.12, E1.3, AS 2419.1-2005
Fire hose reel systems	BCA 2016 Clause E1.4, AS 2441-2005
Fire seals (protecting openings and service penetrations in fire resisting components of the building)	BCA 2016 Clause C3.15, Spec C3.15, Manufacturer's specifications
Lightweight construction	BCA 2016 Clause C1.8, Spec A2.3, Spec C1.8, Manufacturer's specifications
Mechanical air handling systems	BCA 2016 Clause E2.2, Table E2.2a, AS/NZS 1668.1-2015, AS 1668.2-2012 (clause 5.5 car park exhaust operation)
Manual call points to class 9c (maximum 30m to any MCP)	BCA 2015 Clause E2.2, Table E2.2a, clause 4 of Specification E2.2a
Mimic panels to class 9c smoke compartments	BCA 2015 Clause E2.2, Table E2.2a, clause 4 of Specification E2.2a
Openings in fire-isolated lift shafts	BCA 2016 Clause C3.10, AS 1735.11-1986
Occupant warning system	BCA 2016 Clause E2.2, Spec E2.2a (clause 6), AS 1670.1-2015
Portable fire extinguishers	BCA 2016 Clause E1.6, AS 2444-2001
Power operated exit doors	BCA 2016 Clause D2.19, D2.21
Smoke dampers	BCA 2016 Clause E2.2, C2.5, Spec C2.5, AS/NZS 1668.1-2015
Smoke doors	BCA 2016 Clause C2.5, C2.14, Spec C3.4
Smoke-proof walls	BCA 2016 Clause C2.5(b), Spec C2.5
Warning and operational signs	BCA 2016 Clause C3.6, D2.23, D3.6, E3.3, Spec E1.8, Clause 183 of the Environmental Planning and Assessment Regulation 2000

5. Conclusion

Following an assessment of the proposed building it is considered that the proposed building, can achieve compliance with the provisions of BCA 2016, without alteration that would necessitate an amendment to the development consent.

6. Referenced plans

Architectural plans prepared by Group GSA

Document	Revision	Date
Site plan	A	22.03.17
Ground floor plan	A	22.03.17
Level 1 plan	A	22.03.17
Level 2 plan	A	22.03.17
Roof plan	A	22.03.17
North/south elevations	A	22.03.17
East/west elevations	A	22.03.17
Streetscape elevations	A	22.03.17
Sections	A	22.03.17