

A large graphic element on the right side of the page, featuring a dark blue diagonal band that overlaps a grey background with a pattern of white-outlined 3D rectangular blocks. In the background, a blurred image of a modern building is visible.

# **Building Code of Australia**

## **Assessment Report**

**Project Address: 7 Martin Close, East Maitland**

Client: Churches of Christ Community Care

Report Number: RE200033

Revision: 1.0

20 MAY 2020

## REPORT REVISION HISTORY

| Revision | Date Issued | Revision Description                        |
|----------|-------------|---|
| 01       | 20/05/2020  | BCA Draft Report                            |
|          |             | <b>Prepared by</b>                          |
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### Disclaimer

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## 1. EXECUTIVE SUMMARY

The development, the subject of this report, is for the Green Hills aged care home to be located at 7 Martin Close East Maitland. The development consists of a four-storey residential aged care with associated parking and ancillary facilities for residents.

This report has been prepared, on behalf of Churches of Christ Community Care, to establish compliance to the Building Code of Australia and relevant Acts and Regulations of the planning development application documentation for the proposed works. Unless specifically noted this assessment and report deals with the proposed building works.

The following non-compliance's with the deemed-to-satisfy provisions of the BCA, in relation to the proposed building work, have been identified and are proposed to be dealt by justification against the performance requirements of the BCA in accordance with BCA Clause A2.2.

C1.9 & C1.14

The BCA requires building elements of Type A or B construction to be non-combustible, this includes elements on the external wall. The proposed drawings indicate that external walls are to be cladded. Further information regarding the awning products and cladding products in particular 05 Timber Look cladding is required for assessment to determine the external wall and any attachments are deemed non-combustible.



SHADE AWNING



WINDOW SHUTTERS



CLADDING - TIMBER LOOK

NSW C2.5

The BCA requires smoke compartments in aged care building not to exceed 500m<sup>2</sup>.

The following smoke compartments **exceed 500m<sup>2</sup> (highlight in red on the diagrams below)**:

### Ground Floor:

1. SC06 506.9m<sup>2</sup>
2. SC09 512.3m<sup>2</sup>
3. SC11 547.3m<sup>2</sup>



Level 1

- 4. SC12 532.9m<sup>2</sup>
- 5. SC16 547.5m<sup>2</sup>
- 6. SC17 500.5m<sup>2</sup>



Level 2

- 7. SC21 525.9m<sup>2</sup>
- 8. SC22 548.7m<sup>2</sup>



Performance justification is proposed.

Ancillary use areas containing equipment or materials that are a high potential fire hazard, must be separated from the sole-occupancy units by smoke proof walls complying with Specification C2.5.

The ancillary use areas referred to above include, but are not limited to, the following:

- (A) A kitchen and related food preparation areas having a combined floor area of more than 30 m<sup>2</sup>.
- (B) A laundry, where items of equipment are of the type that are potential fire sources (e.g. gas fire dryers).
- (C) Storage rooms greater than 10 m<sup>2</sup> used predominantly for the storage of administrative records.

The following ancillary areas exceed the above floor area requirements and require smoke proof walls:

Ground floor

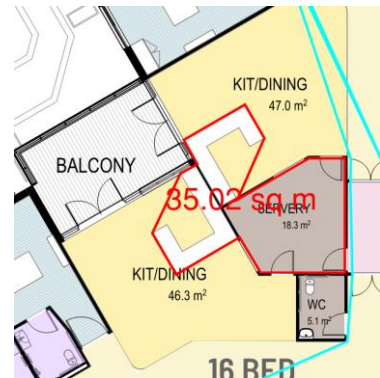
- 1. Western double kitchen + servery 32m<sup>2</sup>

Level 1

- 2. Western double kitchen + servery 32m<sup>2</sup>

Level 2

- 3. Western double kitchen + servery 35m<sup>2</sup>



Performance justification is proposed

D1.4

Generally, the exit travel distances throughout the building meet the requirements of this Clause, with the exception of the following areas:

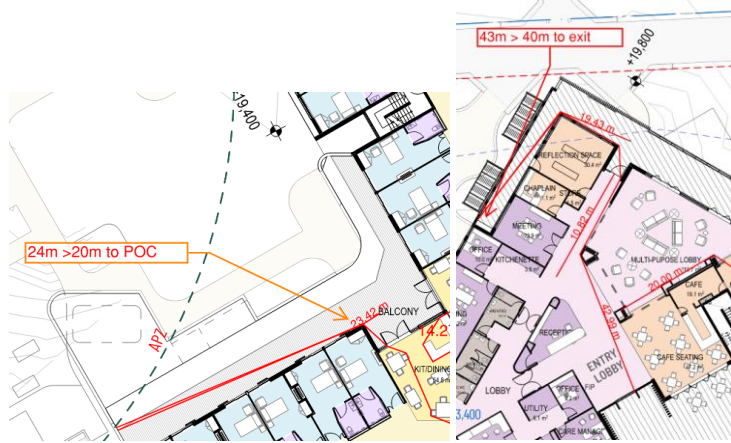
Ground Floor

Common balcony (South west wing)

- 24m > 20m to POC

Walkway to the rear of the Chaplain

- 43m > 40m to exit



Level 2

Terrace

- 24m > 20m to POC
- 54.2m > 40m to exit

Community room

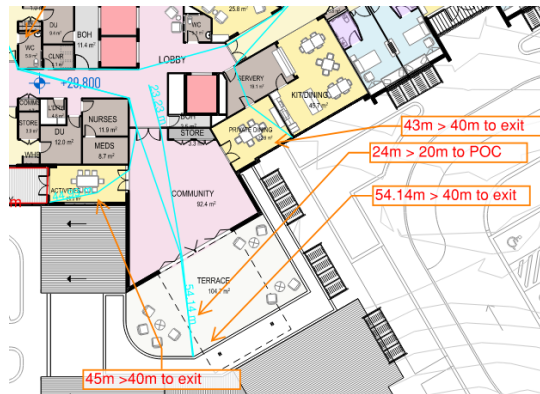
- 48m > 40m to exit

Private dining (off community room)

- 43m > 40m to exit

Activities room (off community room)

- 45m > 40m to exit



Performance justification is proposed

D1.5

The following exits are located more than 60m apart and are not in accordance with DtS provision:

Level 1

Northern exit

- 73m > 60m to alternate exit

Eastern exit

- 67m > 60m to alternate exit

Southern exit

- 64m > 60m to alternate exit

Western exit

- 64m > 60m to alternate exit

Level 2

Northern exit

- 74m > 60m to alternate exit

Southern exit

- 64m > 60m to alternate exit

Western exit

- 64m > 60m to alternate exit



Performance justification is proposed

D1.8

External stairs are proposed in lieu of fire isolated stairs. The proposed drawings indicate the external stair is generally open at one end with attached louvres assumed to be for weather protection.

Architect to confirm the open area of the external stairs with the proposed louvre systems.

D2.17

The BCA requires handrails to be provided in accordance with the provision of this Clause throughout the development.

Handrails have not been provided in the following areas:

1. Lower ground (wellness area)
2. Ground level – Residential areas
3. Level 2 – Residential areas



4. External stairs in lieu of FIS
5. Common lobby on all levels;

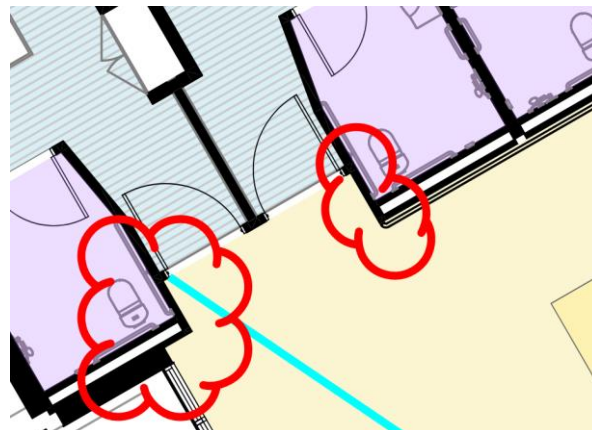


A design change is required.

The following areas have been provided with handrails however, the handrails are not strictly in accordance with DtS provisions:

Lower ground and level 1:

1. Handrails do not wrap around SOU sanitary facility to residential entrances within the ward areas; (A design change is required).
2. Handrails are not provided to both sides. (Performance justification is proposed)



F2.1

Residents are generally provided with their own private facilities however the BCA requires the following:

- (i) For residents in each building or group of buildings, provide—
  - (A) a closet pan and wash basin for each 6 residents or part thereof where private facilities are not provided; and
  - (B) a shower for each 7 residents or part thereof for where private facilities are not provided; and
  - (C) a suitable bath, fixed or mobile

The proposed design does not provide a common fixed or mobile bath is required.

A design change is required.



F4.8

The BCA restricts sanitary compartments from opening directly into a kitchen or pantry or a public dining room.

The following sanitary compartments do not comply with the provisions of this Clause:

Lower ground floor

1. ACC WC/Shower in Dinning (day respite)

Ground Floor

2. WC - southern wing opposite Kit/dinning
3. WC - western wing opposite Kit/dinning

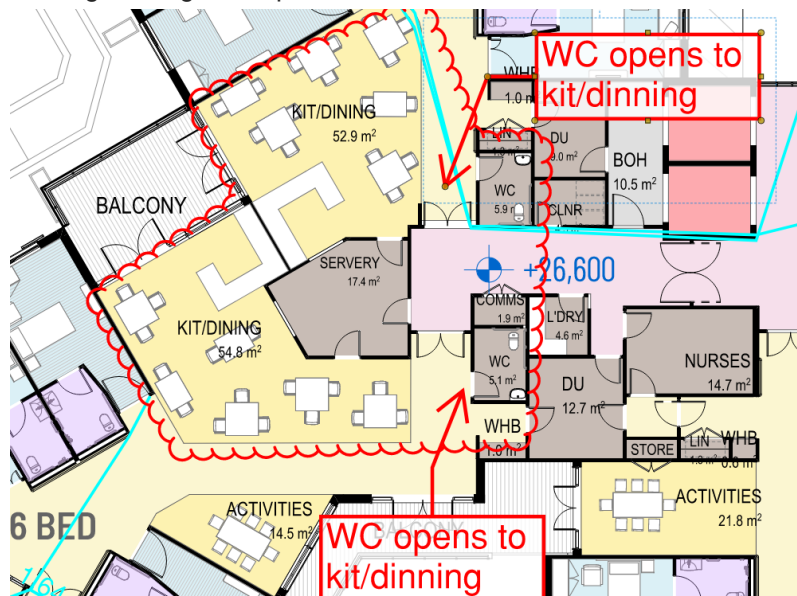
Level 1

4. WC - southern wing opposite Kit/dinning
5. WC - western wing opposite Kit/dinning

Level 2

6. WC - western wing opposite Kit/dinning

A design change is required.



## 2. INTRODUCTION

### 2.1. General

This report serves as an assessment for compliance with the Building Code of Australia for the construction of a new residential aged care building that will be situated 7 Martin Close East Maitland. The building consists of four levels of residential aged care with associated lower ground carpark and ancillary areas for the use of residents, staff and visiting patrons.

### 2.2. Purpose of Report

This report has been prepared, on behalf of Churches of Christ Community Care, to establish compliance to the Building Code of Australia and relevant Acts and Regulations of the development application documentation for the proposed works.

### 2.3. Report Basis

The following information has been directly referenced or relied upon in the preparation of this report:

- (a) Architectural plans prepared by Calder Flower Architects, as identified in the attached Appendix 1.
- (b) The Building Code of Australia 2019, inclusive of NSW variations (See Note 1).
- (c) Environmental Planning and Assessment Act 1979.
- (d) Environmental Planning and Assessment Regulation 2000.

Note1: Building Code of Australia (BCA) 2019 was adopted in NSW on 1 May 2019. The amendment of the BCA in force at the date of lodgement of a Construction Certificate is the version called up by Clause 98 of the Environmental Planning & Assessment Regulation 2000 for the purpose of the building design. Therefore, comments may be subject to changes to comply with updated versions of the Building Code of Australia.

### 2.4. Exclusions and Limitations

This report does not consider the following, except where specifically mentioned:

- Structural design.
- The Disability Discrimination Act 1992 (access for people with disabilities has been assessed in accordance with Part D3 of the BCA, however additional measures may be required to be provided subject to the Disability Discrimination Act 1992)
- Disability (Access to Premises – Building) Standards 2010.

### 3. BUILDING CODE OF AUSTRALIA ASSESSMENT

#### 3.1. Classification (Part A6)

The proposed building consists of:

| Class | Use   | Area   |
|-------|---|--|
| 9c    | Residential Aged Care Facility + ancillary facilities | Part Lower Ground, Ground, Level 1, Level 2. |
| 7a    | Carparking  | Part Lower Ground                            |

#### 3.2. Effective Height (Schedule 3)

The proposed building will have an effective height is 9.8m. (RL 29.80 - 20.00 = 9.8m)

#### 3.3. Rise in Storeys (C1.2)

The proposed building will consist of a rise in storeys of four (4).

#### 3.4. Type of Construction (C1.1)

Type A construction in accordance with Specification C1.1 of the BCA, is the applicable type of construction.

## 4. BUILDING CODE OF AUSTRALIA ASSESSMENT

### 4.1. Structure (BCA Section B)

| BCA Clause | Title   | Assessment and Comment  | Status               |
|------------|---|---|----------------------|
| B1.1       | Resistance to actions   | The resistance of the building must be greater than the most critical action effects resulting from different combinations of actions in accordance with this clause. The structural design is to be completed by a Structural Engineer to meet the requirements of this provision.   | Capable of Complying |
| B1.2       | Determination of individual actions   | The magnitude of individual actions must be determined in accordance with this clause. The structural design is to be completed by a Structural Engineer to meet the requirements of this provision.  | Capable of Complying |
| B1.4       | Determination of structural resistance of materials & forms of construction | <p>The structural resistance of the following materials and forms of construction for the following elements are to be in accordance with the standards nominated in this clause;</p> <ul style="list-style-type: none"> <li>(a) Masonry</li> <li>(b) Concrete</li> <li>(c) Steel construction</li> <li>(d) Composite steel and concrete</li> <li>(e) Aluminium construction</li> <li>(f) Timber construction</li> <li>(g) Piling</li> <li>(h) Glazing assemblies</li> <li>(i) Termite risk management</li> <li>(j) Roof construction</li> <li>(k) Particleboard structural flooring</li> <li>(l) Garage doors</li> <li>(m) Lift shafts</li> </ul> <p>The structural design is to be completed by a Structural Engineer to meet the requirements of this provision.</p> | Capable of Complying |
| B1.5       | Structural Software   | Structural software used in computer aided design is to comply with the requirements of this provision.   | Capable of Complying |
| B1.6       | Construction of buildings in flood hazard areas                             | <p>A Class 2, 3, 4, 9a or 9c building is required to comply with the ABCB standards for Construction of Buildings in Flood Hazard Areas, if within a flood planning area.</p> <p>A review of the Department of Planning's Planning Portal indicates that the subject site is not within a flood Planning area</p>   | N/A                  |

#### 4.2. Fire Resistance (BCA Section C)

| BCA Clause | Title                             | Assessment and Comment  | Status                                      |
|------------|-----------------------------------|---|---|
| C1.1       | Type of construction required     | The type of fire resisting construction applicable is Type A construction.  | Capable of Complying                        |
| C1.2       | Calculation in rise in storeys    | The building contains a rise in storeys of four (4).  | Capable of Complying                        |
| C1.8       | Lightweight construction          | Any proposed fire resisting lightweight walls or fire resisting lightweight protection to steel columns is to comply with Specification C1.8.   | Capable of Complying                        |
| C1.9       | Non-combustible building elements | <ol style="list-style-type: none"> <li>1. In a building required to be Type A or B construction, the following building elements and their components must be non-combustible:               <ol style="list-style-type: none"> <li>(a) External walls and common walls, including all components incorporated in them including the façade covering, framing and insulation.</li> <li>(b) The flooring and floor framing of lift pits.</li> <li>(c) Non-loadbearing internal walls where they are required to be fire-resisting.</li> </ol> </li> <li>2. A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible construction in A building required to be Type A construction; and</li> <li>3. A loadbearing internal wall and loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification C1.1.</li> <li>4. The requirements of (1) and (2) do not apply to gaskets, caulking, sealants, termite management systems, glass, thermal breaks associated with glazing systems &amp; dampproof courses.</li> <li>5. The following materials may be used wherever a non-combustible material is required:               <ol style="list-style-type: none"> <li>(a) Plasterboard.</li> <li>(b) Perforated gypsum lath with a normal paper finish.</li> <li>(c) Fibrous-plaster sheet.</li> <li>(d) Fire-reinforced cement sheeting.</li> <li>(e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1mm thickness and where</li> </ol> </li> </ol> | TBA – Architect to confirm intent to comply |

| BCA Clause | Title                  | Assessment and Comment   | Status   |
|------------|------------------------|--|--|
|            |                        | <p>the Spread-of-Flame Index of the product is not greater than 0.</p> <p>(f) Sarking that does not exceed 1 mm thickness and have a flammability index of not greater than 5.</p> <p>(g) Bonded lamination materials where –</p> <p>(i) Each lamina, including any core, is non-combustible; and</p> <p>(ii) Each adhesive layer does not exceed 1mm in thickness and the total thickness of the adhesive layers does not exceed 2mm; and</p> <p>(iii) The Spread of Flame Index and the Smoke-Developed Index of the bonded laminated materials as a whole do not exceed 0 and 3 respectively.</p>   |  |
| C1.10      | Fire hazard properties | Proposed internal linings, materials and assemblies are to be selected to comply with the required fire hazard properties of Specification C1.10.  | Capable of Complying   |
| C1.14      | Ancillary Elements     | <p>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:</p> <ol style="list-style-type: none"> <li>1. An ancillary element that is non-combustible.</li> <li>2. A gutter, downpipe or other plumbing fixture or fitting.</li> <li>3. A flashing.</li> <li>4. A grate or grille not more than 2m<sup>2</sup> in area associated with a building service.</li> <li>5. An electrical switch, socket-outlet, cover plate or the like.</li> <li>6. A light fitting.</li> <li>7. A required sign.</li> <li>8. A sign other than one provided under (1) or (7) that-               <ol style="list-style-type: none"> <li>(a) Achieves a ground number of 1 or 2; and</li> <li>(b) Does not extend beyond one storey; and</li> <li>(c) Does not extend beyond one fire compartment; and</li> <li>(d) Is separated vertically from other signs permitted under (8) by at least 2 storeys.</li> </ol> </li> <li>9. An awning, sunshade, canopy, blind or shading hood other than one provided under (1) that –</li> </ol> | TBA – Architect to confirm intent to comply including details of shade awning. |



| BCA Clause | Title                                     | Assessment and Comment  | Status  |                    |                     |  |                |                      |                      |
|------------|---|---|---|--------------------|---------------------|--|----------------|----------------------|----------------------|
|            |   | <p>(a) Meets the requirements of Table 4 of Specification C1.10 as for an internal element; and</p> <p>(b) Serves a storey –</p> <ul style="list-style-type: none"> <li>(i) At ground level; or</li> <li>(ii) Immediately above a storey at ground level; and</li> <li>(iii) Does not serve an exit, where it would render the exit unusable in a fire.</li> </ul> <p>10.A part of a security, intercom or announcement system.</p> <p>11.Wiring.</p> <p>12.A paint, lacquer or a similar finish.</p> <p>13.A gasket, caulking, sealant or adhesive directly associated with (1) to (11).</p>   |   |                    |                     |  |                |                      |                      |
| C2.2       | General floor area and volume limitations | <p>The following maximum fire compartmentation floor area and volume limitations apply:</p> <table border="1" data-bbox="612 1055 1168 1117"> <tr> <td data-bbox="612 1055 746 1084">Class 9c</td> <td data-bbox="746 1055 986 1084">Maximum Floor Area</td> <td data-bbox="986 1055 1168 1084">8 000m<sup>2</sup></td> </tr> <tr> <td></td> <td data-bbox="746 1084 986 1117">Maximum Volume</td> <td data-bbox="986 1084 1168 1117">48 000m<sup>3</sup></td> </tr> </table> <p>The building complies with the general floor area and volume limitations identified by this clause.</p> <p>The building is proposed to be divided into three fire compartments based on the proposed drawings:</p> <ol style="list-style-type: none"> <li>1. Lower Ground floor;</li> <li>2. Ground floor &amp; Level 1; and</li> <li>3. Level 2.</li> </ol> | Class 9c  | Maximum Floor Area | 8 000m <sup>2</sup> |  | Maximum Volume | 48 000m <sup>3</sup> | Capable of Complying |
| Class 9c   | Maximum Floor Area                        | 8 000m <sup>2</sup>   |   |                    |                     |  |                |                      |                      |
|            | Maximum Volume                            | 48 000m <sup>3</sup>  |   |                    |                     |  |                |                      |                      |
| NSW C2.5   | Class 9a and 9c buildings                 | <p>A Class 9c building must comply with the following:</p> <p>(i) As required under Clause C2.5 the building must be separated by smoke proof walls complying with Specification C2.5 into smoke compartments no greater than 500m<sup>2</sup>.</p> <p>The following smoke compartments exceed 500m<sup>2</sup>:</p> <p><u>Ground Floor:</u></p> <ol style="list-style-type: none"> <li>1. SC06 506.9m<sup>2</sup></li> <li>2. SC09 512.3m<sup>2</sup></li> <li>3. SC11 547.3m<sup>2</sup></li> </ol> <p><u>Level 1</u></p>   | Performance Solution/TBA – Architect to confirm Laundry equipment |                    |                     |  |                |                      |                      |

| BCA Clause | Title | Assessment and Comment  | Status |
|------------|-------|---|--------|
|            |       | <p>4. SC12 532.9m<sup>2</sup><br/>           5. SC16 547.5m<sup>2</sup><br/>           6. SC17 500.5m<sup>2</sup></p> <p><u>Level 2</u></p> <p>7. SC21 525.9m<sup>2</sup><br/>           8. SC22 548.7m<sup>2</sup></p> <p>Performance justification is proposed.</p> <p>(ii) A fire compartment must be separated from the remainder of the building by fire walls and notwithstanding C2.7 and Specification C1.1, floors with an FRL of not less than 60/60/60.</p> <p>In the accordance with the above the carpark is to be fire separated from remainder of building by 1 hr fire wall.</p> <p>(iii) Except for walls provided in accordance with (b)(i) and (ii), non-loadbearing internal walls, and if a building is of Type C construction — all internal walls, between and bounding sole-occupancy units and bounding a public corridor in a resident use area must:</p> <p>(A) be lined on each side with standard grade plasterboard not less than 13 mm thick or a material with at least an equivalent level of fire protection; and</p> <p>(B) if provided with cavity insulation, contain only non-combustible insulation; and</p> <p>(C) extend to the underside of—</p> <p>(aa) the floor next above; or</p> <p>(bb) a ceiling lined with standard grade plasterboard not less than 13 mm thick or an equivalent non-combustible material; or</p> <p>(cc) a non-combustible roof covering; and</p> <p>(D) not incorporate any penetrations above door head height unless the penetrations are adequately stopped to prevent the free passage of smoke; and</p> <p>(E) be smoke sealed with intumescent putty or other suitable material at any construction joint, space or the like</p> |        |

| BCA Clause | Title | Assessment and Comment  | Status |
|------------|-------|---|--------|
|            |       | <p>between the top of the wall and the floor, ceiling or roof.</p> <p>(iv) Loadbearing internal walls must comply with the requirements of Specification C1.1 and (iii)(B), (C), (D) and (E) above.</p> <p>(v) Ancillary use areas containing equipment or materials that are a high potential fire hazard, must be separated from the sole-occupancy units by smoke proof walls complying with Specification C2.5.</p> <p>(vi) The ancillary use areas referred to in (v) include, but are not limited to, the following:</p> <p>(A) A kitchen and related food preparation areas having a combined floor area of more than 30 m<sup>2</sup>.</p> <p>(B) A laundry, where items of equipment are of the type that are potential fire sources (e.g. gas fire dryers).</p> <p>(C) Storage rooms greater than 10 m<sup>2</sup> used predominantly for the storage of administrative records.</p> <p>The following ancillary areas exceed the above floor area requirements and require smoke proof walls:</p> <p><u>Ground floor</u></p> <p>4. Western double kitchen + servery 32m<sup>2</sup></p> <p><u>Level 1</u></p> <p>5. Western double kitchen + servery 32m<sup>2</sup></p> <p><u>Level 2</u></p> <p>6. Western double kitchen + servery 35m<sup>2</sup></p> <p>Performance justification is proposed</p> <p>(vii) Openings in fire walls must be protected as follows:</p> <p>(A) Doorways — self-closing or automatic closing –/60/30 fire doors.</p> <p>(B) Windows — automatic or permanently fixed closed –/60/– fire windows or –/60/– automatic fire shutters.</p> <p>(C) Other openings — construction having an FRL not less than –/60/–.</p> |        |

| BCA Clause | Title  | Assessment and Comment   | Status               |
|------------|--|--|----------------------|
| C2.6       | Vertical separation of openings in external walls  | The building is required to be protected with sprinklers throughout and therefore vertical separation is not required.   | N/A                  |
| C2.7       | Separation by fire walls                           | A fire wall is proposed to separate the carpark from the remainder of the Lower Ground Floor in accordance with NSW C2.5(b)(ii).   | Capable of Complying |
| C2.8       | Separation of classifications in the same storey   | Refer to C2.7 above  | Capable of Complying |
| C2.9       | Separation of classifications in different stories | The floors between parts of different classifications must have an FRL of not less than that prescribed in Specification C1.1 for the classification of the lower storey.  | Capable of Complying |
| C2.10      | Separation of lift shafts                          | The lift shafts are required to be fire separated from the rest of the building in accordance with this clause by the way of a shaft having an FRL of no less than 120/120/120.  | Capable of Complying |
| C2.11      | Stairways and lifts in one shaft                   | No stairways and lifts in the same shaft   | Complies             |
| C2.12      | Separation of equipment                            | <p>The following equipment are required to be fire separated from the remainder of the building by 120/120/120 FRL construction:</p> <ul style="list-style-type: none"> <li>▪ Lift motor rooms and lift control panels.</li> <li>▪ Emergency Generators.</li> <li>▪ Central smoke control plant.</li> <li>▪ Boilers.</li> <li>▪ Battery systems.</li> </ul> <p>The building does not contain any of the above room and the requirements of this provision do not apply.</p>  | Note                 |
| C2.13      | Electricity supply system                          | <p>Where an electricity substation is required to be provided, it must be fire separated from the remainder of the building. The BCA requires 2 hr separation however the electricity authority generally requires 3 hr separation.</p> <p>Any main switchboard located in the building which sustains emergency equipment operating in emergency mode, is required to be fire separated from the remainder of the building by 2 hr fire resisting construction.</p> <p>Construction should achieve an FRL of 120/120/120, doorways are required achieve</p> | Capable of Complying |

| BCA Clause | Title   | Assessment and Comment  | Status               |
|------------|---|---|----------------------|
|            |   | <p>an FRL of -/120/30 and to be self-closing and all penetrations in enclosures are to be appropriately fire stopped.</p> <p>All switchboards in the electrical distribution system, which sustain the electricity supply to the emergency equipment, must provide full segregation by way of enclosed metal partitions designed to prevent the spread of any fault from non-emergency equipment switchgear to the emergency equipment switchgear.</p> <p>Electrical conductors and switchboards are required to comply with this clause.</p> |                      |
| C3.2       | Protection of openings in external walls  | Openings are located more than 3m from the allotment boundary.  | N/A                  |
| C3.3       | Separation of external walls and associated openings in different fire compartments | Separation of the carpark from the remainder of the Lower Ground Floor (LGF) is required to comply.   | Capable of complying |
| C3.5       | Doorways in fire walls  | The doors in the fire wall separating the carpark from the remainder of the LGF are to be -/60/30 fire doors.   | Capable of complying |
| C3.6       | Sliding fire doors  | Sliding doors in fire walls are not proposed.   | N/A                  |
| C3.7       | Protection of doorways in horizontal exits  | Horizontal exits are not proposed.  | N/A                  |
| C3.8       | Openings in fire isolated exits   | No fire isolated exits proposed.  | Note                 |
| C3.10      | Fire isolated lift shafts   | <p>The lift doors are required to be -/60/- fire doors and comply with this provision.</p> <p>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 mm<sup>2</sup> in area.</p>  | Capable of Complying |
| C3.12      | Openings in floors and ceilings for services.                                       | Fire separation between floors is required to be maintained where services penetrate through floors unless the services are located in fire rated shafts.   | Capable of Complying |

| BCA Clause | Title   | Assessment and Comment   | Status               |
|------------|---|--|----------------------|
| C3.15      | Openings for service installations                                | Services that penetrate a building element that is required to have an FRL must be protected utilising one of the options listed under this clause.          | Capable of Complying |
| C3.16      | Construction joints   | Construction joints in building elements required to be fire resistant are required to be protected in accordance with this clause.                          | Capable of Complying |
| C3.17      | Columns protected with lightweight construction to achieve an FRL | Any columns protected with fire resisting lightweight construction to achieve an FRL must be installed in a manner that's identical to the tested prototype. | Capable of Complying |

#### 4.3. Fire-Resisting Construction (Specification C1.1)

| BCA Clause | Title   | Assessment and Comment  | Status               |
|------------|---|---|----------------------|
| 2.1        | Exposure to fire source features  | Exposure to fire source features is to be determined in accordance with this clause.  | Note                 |
| 2.2        | Fire protection for support of another part                                 | When determining FRL's applicable to a particular building element, the requirements of this clause are required to be complied with.   | Capable of Complying |
| 2.3        | Lintels   | Lintels are to be protected as required by the requirements of this clause.   | Capable of Complying |
| 2.4        | Method of attachment not to reduce the fire resistance of building elements | The method of attaching or installing a finish, lining, ancillary element or service installation to the building element must not reduce the fire-resistance of that element to below that required.     | Capable of Complying |
| 2.5        | General concessions   | Roof top plant rooms need not have an FRL if they are non-combustible and they only contain equipment specified in this clause.   | Note                 |
| 2.7        | Enclosure of shafts   | Fire rated shafts are to be enclosed at the top and bottom in accordance with the requirements of this clause.  | Capable of Complying |
| 3.1        | Fire resistance of building elements  | Generally building elements are required to achieve the following FRL's;<br>Carpark: 2 hrs<br>Aged care: 2 hrs<br>A loadbearing internal wall and a loadbearing fire wall must be of concrete or masonry. | Capable of Complying |



| BCA Clause | Title                                | Assessment and Comment  | Status               |
|------------|--------------------------------------|---|----------------------|
| 3.5        | Roof: Concession                     | The roof is not required to achieve an FRL as the building has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification E1.5 installed throughout;  | Capable of Complying |
| 3.6        | Roof lights                          | At this stage no rooflights proposed  | N/A                  |
| 3.7        | Internal wall and column: concession | Internal columns, internal walls (other than fire walls and shaft wall) immediately below the roof are permitted to achieve an FRL of 60/60/60. This concession does not apply to internal columns within 1.5m from the external windows. | N/A                  |

#### 4.4. Smoke-Proof Walls in Health-Care and Aged Care Buildings (Specification C2.5)

| BCA Clause | Title              | Assessment and Comment  | Status               |
|------------|--------------------|---|----------------------|
| 1          | Scope              | This Specification sets out requirements for the construction of smoke-proof walls in Class 9a health-care buildings and Class 9c buildings.  | Note                 |
| 3          | Class 9c buildings | <p>Smoke-proof walls required by C2.5 in Class 9c buildings must comply with the following:</p> <p>(a) The wall may be lined on one side only.</p> <p>(b) Linings on the wall must be non-combustible and extend to the underside of—</p> <ul style="list-style-type: none"> <li>(i) the floor above; or</li> <li>(ii) a non-combustible roof covering; or</li> <li>(iii) a flush plasterboard ceiling lined with 13 mm standard grade plasterboard or a fire-protective covering, with all penetrations sealed against the free passage of smoke.</li> </ul> <p>(c) If plasterboard is used in the lining on a wall, it must be a minimum of 13 mm standard grade plasterboard.</p> <p>(d) Not incorporate any glazed areas unless the glass is safety glass as defined in AS 1288.</p> <p>The glazing to the void area located on the northern wing between ground and level 1 is required to comply with the above clause.</p> | Capable of Complying |

|   |                                |   |                      |
|---|--------------------------------|---|----------------------|
|   |                                | <p>(e) Only have doorways which are fitted with smoke doors complying with Specification C3.4.</p> <p>(f) Have all openings around penetrations and the junctions of the smoke-proof wall and the remainder of the building stopped with non-combustible material to prevent the free passage of smoke.</p> <p>(g) Incorporate smoke dampers where air-handling ducts penetrate the wall unless the duct forms part of a smoke hazard management system required to continue air movement through the duct during a fire.</p> |                      |
| 4 | Doorways in smoke- proof walls | <p>A door required by C2.5 or this Specification to be smoke-proof or have an FRL, other than one that serves a fire compartment provided with a zone smoke control system in accordance with AS/NZS 1668.1, must provide a smoke reservoir by not extending within 400 mm of the underside of—</p> <p>(a) a roof covering; or</p> <p>(b) the floor above; or</p> <p>(c) an imperforate false ceiling that will prevent the free passage of smoke</p>   | Capable of Complying |

#### 4.5. Access and Egress (BCA Section D)

| BCA Clause | Title                                 | Assessment and Comment   | Status               |
|------------|---------------------------------------|--|----------------------|
| D1.2       | Number of exits required              | As required under this Clause for a Class 9c building, each level of the building is provided with at least two (2) exits.   | Capable of Complying |
| D1.3       | When fire isolated exits are required | External stairways in lieu of fire isolated exits have been provided. Please refer to Clause D1.8 below.   | Note                 |
| D1.4       | Exit travel distances                 | <p><b>Class 7a and 9 parts</b> - No point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40m.</p> <p>The exit travel distances in the following areas exceed DtS provisions:</p> <p><u>Ground Floor</u></p> <p>Common balcony (South west wing)</p> <ul style="list-style-type: none"> <li>24m &gt; 20m to POC</li> </ul> <p>Walkway to the rear of the Chaplain</p> | Performance Solution |

| BCA Clause | Title                              | Assessment and Comment   | Status               |
|------------|------------------------------------|--|----------------------|
|            |                                    | <ul style="list-style-type: none"> <li>• 43m &gt;40m to exit</li> </ul> <p><u>Level 2</u></p> <p>Terrace</p> <ul style="list-style-type: none"> <li>• 24m &gt;20m to POC</li> <li>• 54.2m &gt; 40m to exit</li> </ul> <p>Community room</p> <ul style="list-style-type: none"> <li>• 48m &gt; 40m to exit</li> </ul> <p>Private dining (off community room)</p> <ul style="list-style-type: none"> <li>• 43m &gt; 40m to exit</li> </ul> <p>Activities room (off community room)</p> <ul style="list-style-type: none"> <li>• 45m &gt; 40m to exit</li> </ul> <p>Performance justification is proposed</p>   |                      |
| D1.5       | Distance between alternative exits | <p>Alternative exits must be distributed uniformly around the storey and not be less than 9m apart, located so that the alternative paths of travel do not converge such that they become less than 6m apart and not be more than 60m apart in accordance with NCC clause D1.5</p> <p>The following exits are located more than 60m apart and are not in accordance with DtS provision:</p> <p><u>Level 1</u></p> <p>Northern exit</p> <ul style="list-style-type: none"> <li>• 73m &gt; 60m to alternate exit</li> </ul> <p>Eastern exit</p> <ul style="list-style-type: none"> <li>• 67m &gt; 60m to alternate exit</li> </ul> <p>Southern exit</p> <ul style="list-style-type: none"> <li>• 64m &gt; 60m to alternate exit</li> </ul> <p>Western exit</p> <ul style="list-style-type: none"> <li>• 64m &gt; 60m to alternate exit</li> </ul> <p><u>Level 2</u></p> <p>Northern exit</p> <ul style="list-style-type: none"> <li>• 74m &gt; 60m to alternate exit</li> </ul> <p>Southern exit</p> <ul style="list-style-type: none"> <li>• 64m &gt; 60m to alternate exit</li> </ul> <p>Western exit</p> <ul style="list-style-type: none"> <li>• 64m &gt; 60m to alternate exit</li> </ul> | Performance Solution |

| BCA Clause | Title   | Assessment and Comment  | Status                         |
|------------|---|---|--------------------------------|
|            |   | Performance justification is proposed   |                                |
| NSW D1.6   | Dimensions of exits and paths of travel to exits        | <p>A required exit or path of travel to an exit are required to be a minimum unobstructed height of not less than 2m and minimum width of 1m and in a public corridor in a Class 9c aged care building, notwithstanding (c) and (d)—</p> <p>(A) 1.5 m; and</p> <p>(B) 1.8 m for the full width of the doorway, providing access into a sole-occupancy unit or communal bathroom;</p> <p>The unobstructed width of a doorway must be not less than:</p> <p>(iv) in a Class 9c building—</p> <p>(A) 1070 mm where it opens from a public corridor to a sole-occupancy unit; or</p> <p>(B) 870 mm in other resident use areas; or</p> <p>(C) 800 mm in non-resident use areas, and where the doorway is fitted with two leaves and one leaf is secured in the closed position in accordance with D2.21(b)(v), the other leaf must permit an unobstructed opening not less than 870 mm wide in resident use areas and 800 mm wide in non-resident use areas; or</p> <p>(v) in any other case except where it opens to a sanitary compartment or bathroom — 750 mm wide;</p> | Capable of Complying           |
| D1.7       | Travel via fire isolated exits                          | <p>External stairs in lieu of Fire isolated stairs are proposed.</p> <p>In regards to occupant safe travel Clause D1.7(c) applies 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—</p> <p>(i) an FRL of not less than 60/60/60; and</p> <p>(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.</p>   | Capable of complying           |
| D1.8       | External Stairs or ramps in lieu of Fire-isolated exits | External stairs are proposed in lieu of fire isolated stairs. The proposed drawings indicate  | Further information required – |

| BCA Clause | Title | Assessment and Comment   | Status   |
|------------|-------|--|--|
|            |       | <p>the external stair is open at one end and covered by louvres assumed to be for weather protection.</p> <p>The external stairs are required to comply with the provisions of this Clause being:</p> <p>(a) An external stairway or ramp may serve as a required exit in lieu of a fire-isolated exit serving a storey below an effective height of 25 m, if the stairway or ramp is—</p> <ul style="list-style-type: none"> <li>(i) non-combustible throughout; and</li> <li>(ii) protected in accordance with (c) if it is within 6 m of, and exposed to any part of the external wall of the building it serves.</li> </ul> <p>(b) For the purposes of this clause—</p> <ul style="list-style-type: none"> <li>(i) exposure under (a)(ii), is measured in accordance with Clause 2.1 of Specification C1.1, as if the exit was a building element and the external wall of the building was a fire-source feature to the exit, except that the FRL required in Clause 2.1(a)(i) must not be less than 60/60/60; and</li> <li>(ii) the plane formed at the construction edge or perimeter of an unenclosed building or part such as an open-deck carpark, open spectator stand or the like, is deemed to be an external wall; and</li> <li>(iii) openings in an external wall and openings under (c) and (d), are determined in accordance with C3.1.</li> </ul> <p>(c) The protection referred to in (a)(ii), must adequately protect occupants using the exit from exposure to a fire within the building, in accordance with one of the following methods:</p> <ul style="list-style-type: none"> <li>(i) The part of the external wall of the building to which the exit is exposed must have— <ul style="list-style-type: none"> <li>(A) an FRL of not less than 60/60/60; and</li> <li>(B) no openings less than 3 m from the exit (except a doorway serving the exit protected by a –/60/30 fire door in accordance with C3.8(a)); and</li> <li>(C) any opening 3 m or more but less than 6 m from the exit, protected in accordance with C3.4 and if wall wetting sprinklers are used, they are located internally.</li> </ul> </li> <li>(ii) The exit must be protected from— <ul style="list-style-type: none"> <li>(A) any part of the external wall of the building having an FRL of less than 60/60/60; and</li> </ul> </li> </ul> | <p>Architect to confirm the open area of the external stairs with the proposed louvre systems.</p> |

| BCA Clause | Title   | Assessment and Comment  | Status               |
|------------|---|---|----------------------|
|            |   | <p>(B) any openings in the external wall, by the construction of a wall, roof, floor or other shielding element as appropriate in accordance with (d).</p> <p>(d) The wall, roof, floor or other shielding element required by (c)(ii) must—</p> <p>(i) have an FRL of not less than 60/60/60; and</p> <p>(ii) have no openings less than 3 m from the external wall of the building (except a doorway serving the exit protected by a – /60/30 fire door in accordance with C3.8(a)); and</p> <p>(iii) have any opening 3 m or more but less than 6 m from any part of the external wall of the building protected in accordance with C3.4 and if wall wetting sprinklers are used, they are located on the side exposed to the external wall.</p> |                      |
| D1.9       | Travel via non-fire-isolated stairways or ramps | No non-fire isolated stairways within the development.  | N/A                  |
| D1.10      | Discharge from exits                            | <p>The exits must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit.</p> <p>If a required exit leads to open space, the path of travel to the road must have an unobstructed width of not less than 1m. min width of required exit if greater.</p> <p>If an exit discharges to open space that is at a different level than the public road to which it is connected, the path of travel to the road must be by a ramp or other incline not steeper than 1:8, or a BCA compliant stairway.</p> <p>The discharge points of alternative exits must be as far apart as practical</p>   | Capable of Complying |
| D1.11      | Horizontal exits                                | Horizontal exits are not proposed.  | N/A                  |
| D1.12      | Non-required stairways, ramps or escalators     | Non-required stairways, ramps or travellers are not proposed.   | N/A                  |
| D1.13      | Number of persons accommodated                  | Based on drawings and the information provided by the architect. The building the population numbers are as follows:  | Note                 |



| BCA Clause | Title   | Assessment and Comment   | Status               |
|------------|---|--|----------------------|
|            |   | <ul style="list-style-type: none"> <li>45 staff including Care/Admin/Maintenance/Ancillary</li> <li>168 residents</li> </ul>   |                      |
| D1.16      | Plant rooms and lift rooms: concession            | <p>A ladder may be used in lieu of a stairway to provide egress from a plant room with a floor area less than 100m<sup>2</sup> or plant or lift machine rooms with a floor area of less than 200 m<sup>2</sup>, for all but one point of egress.</p> <p>Ladders are required to comply with AS1657 and the requirement of this clause.</p>   | Note                 |
| D1.17      | Access to lift pits                               | Access to lift pipes is to be in accordance with this clause.  | Capable of Complying |
| D2.2       | Fire-isolated stairways and ramps                 | The external stairs are to be non-combustible.   | Capable of Complying |
| D2.4       | Separation of rising and descending stair flights | No rising and descending stairs.   | N/A                  |
| D2.7       | Installation in exits and paths of travel         | <p>Access to service shafts and services other than to firefighting or detection equipment as permitted in the Deemed-to-Satisfy provisions of Section E, must not be provided from a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp.</p> <p>Gas or other fuel services must not be installed in a required exit.</p> <p>Electrical or telecommunications cupboards opening onto a corridor or the like must be of non-combustible construction and smoke sealed from the corridor (including metal lining to inside face of door and smoke seals to door).</p> <p>Only electrical wiring associated with services specified in the clause, are permitted to be installed in a fire isolated exit.</p> | Capable of Complying |
| D2.8       | Enclosure of space under stairs and ramps         | No enclosures of space under stairs or ramps are proposed.   | Complies             |
| D2.9       | Width of stairways                                | No stairs greater than 2m in width proposed.   | N/A                  |
| D2.10      | Pedestrian ramps                                  | A ramp must:   | Capable of Complying |

| BCA Clause | Title                     | Assessment and Comment   | Status                                 |
|------------|---------------------------|--|--|
|            |                           | <p>1. where the ramp is also serving as an accessible ramp under Part D3, be in accordance with AS1428.1; or</p> <p>2. in any other case, have a gradient not steeper than 1:8.</p> <p>The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS4586.</p>  |  |
| D2.11      | Fire-isolated passageways | There are no fire isolated passageways   | N/A                                    |
| D2.12      | Roof as open space        | <p>The roof over the carpark is deemed to be roof as open space. An exit is provided that discharges to the roof.</p> <p>The roof is required to have an FRL of not less than 120/120/120; and not have any roof lights or other openings within 3 m of the path of travel of persons using the exit to reach a road or open space.</p> <p>The proposed ground level drawings indicate a number of openings along the south east wings that are scaled to measure between 1 to 1.4m in lieu of a the minimum 3m.</p> <p>Performance justification is proposed.</p> | Performance Solution                   |
| NSW D2.13  | Goings & risers           | <p>Goings and risers are to be designed to comply with this clause including:</p> <ul style="list-style-type: none"> <li>▪ going and riser dimensions; and</li> <li>▪ slip resistance.</li> </ul>  | Capable of Complying                   |
| D2.14      | Landings                  | Landings are to be designed in accordance with this clause.  | Capable of Complying                   |
| NSW D2.15  | Thresholds                | <p>Thresholds are to comply with this clause.</p> <p>In a Class 9c building, the threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless a ramp is provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold.</p>  | Capable of Complying                   |
| NSW D2.16  | Barriers to prevent falls | Balustrades are to be designed to comply with this clause.   | Capable of Complying                   |
| D2.17      | Handrails                 | Handrails are required along at least one side of all stairways or ramps, or on both sides of stairs or ramps with a total width of more than 2m.  | Design change and Performance Solution |

| BCA Clause | Title  | Assessment and Comment  | Status               |
|------------|--|---|----------------------|
|            |  | <p>Handrails are required to be installed in accordance with AS1428.1-2009 except for fire-isolated stairs.</p> <p>As this building is a Class 9c aged care building it must be provided with handrails along both sides of every passageway or corridor used by residents, and must be—</p> <ul style="list-style-type: none"> <li>(A) fixed not less than 50 mm clear of the wall; and</li> <li>(B) where practicable, continuous for their full length</li> </ul> <p>Handrails have not been provided in the following areas:</p> <ol style="list-style-type: none"> <li>1. Lower ground (wellness area)</li> <li>2. Ground level – Residential areas</li> <li>3. Level 2 – Residential areas</li> <li>4. External stairs in lieu of FIS</li> <li>5. Common lobby on all levels;</li> </ol> <p>A design change is required.</p> <p>The following areas have been provided with handrails however, the handrails are not strictly in accordance with DtS provisions:</p> <p><u>Lower ground and level 1:</u></p> <ol style="list-style-type: none"> <li>1. Handrails do not wrap around SOU sanitary facility to residential entrances within the ward areas; (A design change is required).</li> <li>2. Handrails are not provided to both sides. (Performance justification is proposed)</li> </ol> |                      |
| D2.18      | Fixed platforms, walkways, stairways & ladders | Fixed platforms, walkways, stairways & ladders are to be designed in accordance with this clause.   | Note                 |
| NSW D2.19  | Doorways and doors                             | <p>The sliding doors leading directly to the road or open space must be capable of being opened manually under a force of not more than 110 N.</p> <p>Power-operated doorway required to be opened manually under a force of not more than 110 N and open automatically if it leads directly to a road or open space.</p> <p>As required under this Clause the “resident use areas” are not to be fitted with sliding fire doors, sliding smoke doors, revolving door, roller shutter or tilt up doors.</p>   | Capable of Complying |

| BCA Clause   | Title              | Assessment and Comment  | Status               |
|--|--------------------|---|----------------------|
| D2.20  | Swinging doors     | <p>A swinging door must not encroach and impede the path of travel/exit width by more than 500mm at any part of its swing. When in the fully open position, it must not encroach into the path of travel/exit width by more than 100mm.</p> <p>Doors in or serving as a required exit must swing in the direction of egress unless they are subject to the concession in this clause.</p>   | Capable of Complying |
| NSW D2.21  | Operation of latch | <p>Doors in required exits or forming part of a required exit must be readily openable without a key from the egress side, by a single hand downward action on a single device which is located between 900mm and 1.1m from the floor and comply with the requirements of this clause.</p> <p>The above requirements do not apply to a door that –</p> <ul style="list-style-type: none"> <li>are fitted with a fail-safe device which automatically unlocks the door upon the activation of an AS 1670.1 detection system installed throughout the building.</li> </ul> <p>In regards to this building is one leaf of a two-leaf door complying with D1.6 (f) (i) or D1.6 (f) (iv) provided that it is not held closed by a locking mechanism and is readily openable and the door is not required to be a fire door or smoke door</p> | Capable of Complying |
| D2.23  | Signs on doors     | <p>A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to exit door and smoke doors, in accordance with this clause.</p>  | Capable of Complying |
| <b>Part D3 – Access for People with a Disability</b>                             |                    |   |                      |
| No access assessment included within this report. See third party access report. |                    |   |                      |

#### 4.6. Services and Equipment (BCA Section E)

| BCA Clause | Title         | Assessment & Comment   | Status               |
|------------|---------------|--|----------------------|
| E1.3       | Fire hydrants | <p>A fire hydrant system must be provided in accordance with this clause to serve the whole building and must also be installed in accordance with AS 2419.1. Where internal hydrants are provided, they must only serve the storey in which they are located.</p> | Capable of Complying |

| BCA Clause | Title                                | Assessment & Comment  | Status               |
|------------|--------------------------------------|---|----------------------|
|            |                                      | <p>The pump room is located on lower ground floor.</p> <p>The proposed fire hydrant booster is located on ground floor at the front driveway entrance off Martin Close. The booster is located greater than 10m from the proposed kiosk substation.</p> <p>This item is to be further assessed at CC stage of development.</p>  |                      |
| E1.4       | Fire hose reels                      | <p>Fire hose reels installed in accordance with AS2441 are required to serve to the lower ground carparking area only. The hose reel system must be installed in accordance with this clause and AS 2441.</p> <p>This item is to be further assessed at CC stage of development.</p>  | Capable of Complying |
| E1.5       | Sprinklers                           | <p>All parts of the building are required to be served by an automatic sprinkler system + monitored stop valve in accordance with AS2118.1 and be permanently connected to an approved monitoring system to a fire dispatch centre and must comply with Specification E1.5.</p> <p>It is assumed that the sprinkler valves will be located in the pump room on the lower ground floor.</p> <p>This item is to be further assessed at CC stage of development.</p> | Capable of Complying |
| E1.6       | Portable fire extinguishers          | <p>Portable fire extinguishers are to comply with this provision and sections 1, 2, 3 and 4 of AS 2444.</p>   | Capable of Complying |
| E1.8       | Fire control centres                 | <p>A fire control centre is not required.</p>   | N/A                  |
| E1.9       | Fire precautions during construction | <p>In a building under construction 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.</p>  | Note                 |
| E1.10      | Provision for special hazards        | <p>No special hazards have been identified.</p>   | N/A                  |
| E2.2       | General requirements                 | <p>The following smoke hazard management measures are required in accordance with this clause:</p>  | Capable of Complying |

| BCA Clause | Title                         | Assessment & Comment  | Status |
|------------|-------------------------------|---|--------|
|            |                               | <p>(a) an automatic smoke detection and alarm system complying with Specification E2.2a; and</p> <p>(b) automatic shutdown of any air-handling system which does not form part of a zone pressurisation system (other than individual room units with a capacity not more than 1000 L/s, systems serving critical treatment areas and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1) on the activation of—</p> <p>(i) smoke detectors installed in accordance with (a); and</p> <p>(ii) any other installed fire detection and alarm system including a sprinkler system complying with Specification E1.5;</p> <p>In a Class 9c building—</p> <p>(i) remote automatic indication of each zone must be given in each smoke compartment by means of—</p> <p>(A) mimic panels with an illuminated display; or</p> <p>(B) annunciator panels with alpha numeric display; and</p> <p>(ii) if the building accommodates more than 20 residents, manual call points must be installed in paths of travel so that no point on a floor is more than 30 m from a manual call point.</p> <p>In a Class 7a -</p> <p>A Class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS 1668.2 must comply with clause 5.5 of AS 1668.1 except that—</p> <p>(a) fans with metal blades suitable for operation at normal temperature may be used; and</p> <p>(b) the electrical power and control cabling need not be fire rated.</p> |        |
| E2.3       | Provision for special hazards | N/A   | N/A    |

| BCA Clause   | Title                                  | Assessment & Comment   | Status               |
|--------------|--|--|----------------------|
| E3.1         | Lift installations                     | An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification E3.1.   | Capable of Complying |
| E3.2         | Stretcher facility in lifts            | E3.8 requires at least one lift is required to accommodate a stretcher, in accordance with E3.2(b). The lift must accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600 mm wide x 2000 mm long x 1400 mm high above the floor level. | Capable of Complying |
| E3.3         | Warning against use of lifts in fire   | Warning signs must be displayed near every lift call button in accordance with this clause.  | Capable of Complying |
| E3.4         | Emergency lifts                        | No emergency lifts required.   | N/A                  |
| E3.5         | Landings                               | Access and egress to and from lift well landings must comply with the DTS provision of Section D   | Capable of Complying |
| E3.6         | Passenger lifts                        | The lifts are required to be of a type and have features for people with disabilities as required by this clause.  | Capable of Complying |
| E3.7         | Fire service controls                  | No fire service controls are required given the effective height is less than 12m.   | N/A                  |
| E3.8         | Aged care buildings                    | At least one lift is required to accommodate a stretcher, in accordance with E3.2(b).  | Capable of Complying |
| E4.2 to E4.4 | Emergency lighting requirements        | Emergency lighting must be provided in accordance with these clauses. Emergency lighting is required to comply with AS2293.1-2005.   | Capable of Complying |
| E4.5 to E4.8 | Exit signs                             | Exit signage must be provided in accordance with this clause. Exit signage is required to comply with AS2293.1-2005 and be clearly visible at all times.   | Capable of Complying |
| E4.9         | Emergency warning and intercom systems | As the building does not have an effective height that exceeds 25m the provisions of this Clause do not apply.   | N/A                  |

#### 4.7. Health and Amenity (BCA Section F)

| BCA Clause | Title                                   | Assessment and Comment  | Status               |
|------------|---|---|----------------------|
| F1.0       | Deem to satisfy provisions              | Performance requirement FP1.4, for the prevention of the penetration of water through external walls, is required to be complied with.  | Capable of Complying |
| F1.1       | Stormwater drainage                     | Stormwater drainage is required to be designed to comply with AS/NZS 3500.3-2015.   | Capable of Complying |
| F1.4       | External above ground membranes         | Waterproofing membranes for external above ground use must comply with AS 4654.1-2012 & AS 4654.2-2012  | Capable of Complying |
| F1.5       | Roof coverings                          | Lightweight metal roof sheeting is to comply with AS1562.1.   | Capable of Complying |
| F1.6       | Sarking                                 | Sarking-type materials used for weatherproofing of roofs and walls are required to comply with AS/NZS 4200 Parts 1 and 2.   | Capable of Complying |
| F1.7       | Waterproofing of wet areas in buildings | Waterproofing of wet areas are required to comply with this clause 76 AS 3740.  | Capable of Complying |
| F1.9       | Damp-proofing                           | Damp proofing is required to be provided in accordance with this clause.  | Capable of Complying |
| F1.10      | Damp-proofing of floor on ground        | Damp proofing is required to be provided in accordance with this clause.  | Capable of Complying |
| F1.13      | Glazed assemblies                       | Glazed assemblies to comply with AS 2047 as applicable.   | Capable of Complying |
| F2.1       | Facilities in residential buildings     | Residents within the building are provided with their own private facilities.<br>A common fixed or mobile bath is required.   | Does not comply      |
|            |   | In addition to the facilities required by (e)(i), provide—<br><br>(A) one kitchen or other adequate facility for the preparation and cooking or reheating of food including a kitchen sink and washbasin; and<br><br>(B) laundry facilities for the cleansing and drying of linen and clothing or adequate facilities for holding and dispatch or treatment of soiled linen and clothing and the like and the receipt and storage of clean linen; and<br><br>(C) one clinical hand washing basin for each 16 residents or part thereof. | Capable of Complying |



| BCA Clause | Title                                   | Assessment and Comment   | Status                           |
|------------|---|--|----------------------------------|
| F2.3       | Facilities in Class 3 to 9 buildings    | <p>Number of sanitary facilities are adequate with the assumption that staff on all levels are to utilise the facilities located at BOH on lower ground floor.</p> <p>Adequate means of disposal of sanitary products must be provided in sanitary facilities for use by females.</p>  | Capable of Complying             |
| F2.4       | Facilities for people with disabilities | No access assessment included within this report.  | Refer to Access Report by others |
| F2.5       | Construction of sanitary compartments   | The construction of sanitary compartments is required to comply with this requirement.   | Capable of Complying             |
| F2.6       | Interpretation: Urinals and washbasins  | <p>A urinal may be - an individual stall or wall-hung urinal; or each 600mm length of a continuous urinal trough, or a closet pan used in place of a urinal.</p> <p>A washbasin may be an individual basin or a part of a hand washing trough served by a single water tap.</p>  | Note                             |
| F2.8       | Waste management                        | <p>In this building, the following facilities must be provided for every 60 beds or part thereof on each storey containing resident use areas:</p> <ul style="list-style-type: none"> <li>(i) one slop-hopper or the other device other than a water closet pan or urinal for the safe handling and disposal of liquid and solid waste with a flushing apparatus, tap and grating; and</li> <li>(ii) an appliance for the disinfection of pans or an adequate means to dispose of receptacles</li> </ul> | Capable of Complying             |
| F3.1       | Height of rooms and other spaces        | <p>The minimum ceiling height requirements are to comply with the requirements of this provision.</p> <p>In this building the following room heights are to be maintained:</p> <ul style="list-style-type: none"> <li>(a) a kitchen, laundry, or the like- 2.1m; and</li> <li>(b) a corridor, passageway or the like- 2.4m; and</li> <li>(c) a habitable room excluding a kitchen- 2.4m.</li> </ul> <p>According to the elevation and section plans that have been provided the above required</p>       | Capable of Complying             |

| BCA Clause | Title  | Assessment and Comment  | Status               |
|------------|--|---|----------------------|
|            |  | room heights can be achieved throughout the building.   |                      |
| F4.1-4.3   | Provision of natural light                               | <p>Natural lighting must be provided in all habitable rooms of the residential units and all rooms used as sleeping in a 9c building.</p> <p>Natural light must be provided by:</p> <p>(i) Windows:</p> <p>A. with an aggregate light transmitting area of not less than 10% the floor area of the room; and</p> <p>B. that are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or</p> <p>(ii) Rooflights, that:</p> <p>A. have an aggregate light transmitting area of not less than 3% the floor area of the room; or</p> <p>(iii) a proportional combination of windows and roof lights required by (i) and (ii).</p> <p>In a Class 9c aged care building, a required window must be transparent and located—</p> <p>(i) in an external wall with the window sill not more than 1 m above the floor level; and</p> <p>(ii) where the window faces an adjoining allotment, another building or another wall of the same building, it must not be less than a horizontal distance of 3 m from the adjoining allotment, other building or wall</p> | Capable of Complying |
| F4.4       | Artificial lighting                                      | Artificial lighting is to be provided in accordance with AS/NZS1680.0 to spaces required by this clause.  | Capable of Complying |
| F4.5-4.7   | Ventilation of rooms                                     | Ventilation is to be provided by natural or mechanical means in accordance with this provision and Clause F4.6.   | Capable of Complying |
| F4.8       | Restriction on the position of water closets and urinals | <p>Sanitary compartments must not open directly into—</p> <p>(a) a kitchen or pantry; or</p> <p>(b) a public dining room or restaurant; or</p> <p>(c) a dormitory in a Class 3 building; or</p> <p>(d) a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand); or</p>   | Does not comply      |

| BCA Clause | Title                 | Assessment and Comment  | Status               |
|------------|-----------------------|---|----------------------|
|            |                       | <p>(e) a workplace normally occupied by more than one person.</p> <p>The following sanitary compartments do not comply with the provisions of this Clause:</p> <p><u>Lower ground floor</u></p> <p>7. ACC WC/Shower in Dinning (day respite)</p> <p><u>Ground Floor</u></p> <p>8. WC - southern wing opposite Kit/dinning</p> <p>9. WC - western wing opposite Kit/dinning</p> <p><u>Level 1</u></p> <p>10. WC - southern wing opposite Kit/dinning</p> <p>11. WC - western wing opposite Kit/dinning</p> <p><u>Level 2</u></p> <p>12. WC - western wing opposite Kit/dinning</p> <p>A design change is required.</p> |                      |
| F4.9       | Airlocks              | <p>If the room containing a closet pan or urinal must not open directly into rooms identified in F4.8 above then an airlock of not less than 1.1 m<sup>2</sup> and fitted with self-closing doors at all access doorways or the room containing the closet pan or urinal must be provided with mechanical ventilation and the doorway to the room adequately screened from view.</p> <p>Where airlocks have not been provided, mechanical ventilation and screening of the bathrooms is to be provided.</p>   | Capable of Complying |
| F4.11      | Car park exhaust      | <p>The carpark must have a system of ventilation complying with AS1668.2 or permanent natural ventilation in accordance with Section 4 of AS1668.4.</p>   | Capable of Complying |
| F4.12      | Kitchen local exhaust | <p>A commercial kitchen must be provided with a kitchen exhaust hood complying with AS/NZS 1668.1-1998 and AS 1668.2-1991 as required by this clause.</p>   | Capable of Complying |

| BCA Clause | Title  | Assessment and Comment   | Status               |
|------------|--|--|----------------------|
| F5.1       | Application of part                                | The sound insulation requirements of F5.2, F5.3, F5.4, F5.5, F5.6 & F5.7 only apply to the Class 2, 3 and 9c component of the building.  | Note                 |
| F5.2       | Determination of airborne sound insulation ratings | <p>A form of construction required to have an airborne sound insulation rating must:</p> <ul style="list-style-type: none"> <li>▪ have the required value for weighted sound reduction index (<math>R_w</math>) or weighted sound reduction index with spectrum adaptation term (<math>R_w + C_{tr}</math>) determined in accordance with AS/NZS 1276.1 or ISO 717.1 using results from laboratory measurements; or</li> <li>▪ an acceptable form of construction under Spec F5.2.</li> </ul> <p>Acoustic engineer to certify at the CC Stage.</p> | Capable of Complying |
| F5.3       | Determination of impact sound insulation ratings   | Determination of impact sound insulation ratings is to be in accordance with this clause. Particular attention is required to the requirements for discontinuous construction. Acoustic engineer to certify at the CC Stage.   | Capable of Complying |
| F5.4       | Sound insulation rating of floor                   | <p>A floor in a Class 9c building separating sole occupancy units must have an <math>R_w</math> not less than 45.</p> <p>Acoustic engineer to certify at the CC Stage.</p>   | Capable of Complying |
| F5.5       | Sound insulation of walls                          | <p>Sound insulation of walls and doors is required to be in accordance with this clause.</p> <p>Acoustic engineer to certify at the CC Stage.</p>  | Capable of Complying |
| F5.6       | Sound insulation rating of internal services       | <p>Services that serves or pass through more than one SOU must achieve the required ratings specified by this clause.</p> <p>Acoustic engineer to certify at the CC Stage.</p>   | Capable of Complying |
| F5.7       | Sound isolation of pumps                           | <p>A flexible coupling must be installed at the point of connection between service pipes in a building and any circulating or other pump.</p> <p>Acoustic engineer to certify at the CC Stage.</p>  | Capable of Complying |

#### 4.8. Ancillary Provisions (BCA Section G)

| BCA Clause | Title  | Assessment and comment  | Status               |
|------------|--|---|----------------------|
| G1.2       | Refrigerated chambers, strong rooms & vaults | Refrigerated chambers, strong rooms & vaults to comply with the requirements of this provision. | Capable of Complying |

| BCA Clause  | Title                                 | Assessment and comment  | Status               |
|-------------|---------------------------------------|---|----------------------|
| NSW G1.101  | Provision for the cleaning of windows | The method of provision for the cleaning of windows is required to be in accordance with this clause (windows 3 or more storeys above the ground).  | Capable of Complying |
| G2.2        | Installation of appliances            | Domestic solid fuel burning appliances are not proposed.<br><br>Boilers and pressure vessels, as defined by BCA, are required to comply with Specification G2.2   | Note                 |
| NSW G5.2    | Protection in bushfire prone areas    | The residential age care facility is considered as a special fire protection purpose being deemed as a retirement village.<br><br>In a designated bushfire prone area, a Class 9 building that is a special fire protection purpose or a Class 10a building or deck associated with such a building or part, must comply with the following—<br><br>(a) AS 3959 except—<br><ul style="list-style-type: none"> <li>(i) as amended by Planning for Bush Fire Protection; and</li> <li>(ii) for Section 9 Construction for Bushfire Attack Level FZ (BAL-FZ). Buildings subject to BAL-FZ must comply with specific conditions of development consent for construction at this level; or</li> </ul><br>(b) the requirements of (a) above as modified by the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or<br><br>(c) the requirements of (a) above as modified by development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development. | Capable of Complying |
| G6.1 – G6.9 | Outdoor occupiable area               | This part applies to occupiable outdoor areas as required by this clause. This clause contains provisions for fire hazard properties; fire separation; escape provisions; firefighting equipment; emergency lighting, exit signs and warning systems; light and ventilation.<br><br>The following areas have been considered as occupiable outdoor areas in accordance with Schedule 3:   | Capable of Complying |

| BCA Clause | Title | Assessment and comment  | Status |
|------------|-------|---|--------|
|            |       | <p><u>Ground floor</u></p> <ol style="list-style-type: none"> <li>1. Common Balcony (south-west)</li> <li>2. Balcony adjacent lift lobby</li> </ol> <p><u>Level 1</u></p> <ol style="list-style-type: none"> <li>3. Common Balconies on south and west wings.</li> </ol> <p><u>Level 2</u></p> <ol style="list-style-type: none"> <li>4. Common Balconies on south and west wings.</li> <li>5. Terrace</li> </ol> |        |

#### 4.9. Energy Efficiency (BCA Section J – Class 3 and 5 to 9 Buildings)

##### 4.9.1. External Fabric (Part J1)

| BCA Clause | Title                          | Assessment and Comment   | Status               |
|------------|--------------------------------|--|----------------------|
| J1.1       | Application of part            | The Deemed-to-Satisfy Provisions of this Part apply to building elements forming the envelope of a Class 3 and 5 to 9 building in accordance with this clause. | Note                 |
| J1.2       | Thermal Construction - General | Required insulation, reflective insulation and bulk insulation is to be installed in accordance with this clause and AS/NZS 4859.1.                            | Capable of Complying |
| J1.3       | Roof and Ceiling Construction  | A roof or ceiling that is part of the envelope must achieve the Total R-Value in accordance with this clause.  | Capable of Complying |
| J1.4       | Roof Lights                    | No rooflights currently proposed.  | N/A                  |
| J1.5       | Walls & Glazing                | External wall-glazing that are part of the envelope are required to comply with the requirements of this provision.  | Capable of Complying |
| J1.6       | Floors                         | Floors that are part of the envelope are required to comply with the requirements of this provision.   | Capable of Complying |

#### 4.9.2. Building Sealing (Part J3)

| BCA Clause | Status                                  | Assessment and Comment   | Status               |
|------------|---|--|----------------------|
| NSW J3.1   | Application of part                     | The Deemed-to-Satisfy Provisions of this Part apply to building elements forming the envelope of a Class 3 & 5 to 9 building in accordance with this clause.   | Note                 |
| J3.2       | Chimneys and flues                      | Solid fuel burning appliances are not proposed and the requirements of this provision do not apply.  | N/A                  |
| J3.3       | Roof Light                              | No rooflights currently proposed.  | N/A                  |
| J3.4       | Windows and doors                       | Windows and doors forming part of the envelope are required to be sealed to restrict air infiltration in accordance with this clause.  | Capable of Complying |
| J3.5       | Exhaust Fans                            | An exhaust fan must be fitted with a sealing device such as a self-closing damper or the like when serving a: <ul style="list-style-type: none"> <li>▪ conditioned space; or</li> <li>▪ a habitable room in climate zone 4, 6, 7 &amp; 8.</li> </ul> | Capable of Complying |
| J3.6       | Construction of roofs, walls and floors | Roofs, ceilings, walls, floors and any openings are required to be designed and constructed to minimise air leakage in accordance with this clause.  | Capable of Complying |
| J3.7       | Evaporative Coolers                     | Evaporative coolers are not proposed.  | N/A                  |

#### 4.9.3. Air Conditioning and Ventilation Systems (Part J5)

| BCA Clause | Status                                | Assessment and Comment   | Status               |
|------------|---------------------------------------|--|----------------------|
| J5.2       | Air Conditioning System control       | Any proposed air-conditioning systems must be designed in accordance with this clause.                               | Capable of Complying |
| J5.3       | Mechanical ventilation system control | Any proposed mechanical ventilation systems must be designed in accordance with this clause.                         | Capable of Complying |
| J5.4       | Fan systems                           | Any proposed fan systems must be designed in accordance with this clause.  | Capable of Complying |
| J5.5       | Ductwork insulation                   | Ductwork and fittings in an air-conditioning system must be provided with insulation in accordance with this clause. | Capable of Complying |

| BCA Clause | Status                             | Assessment and Comment   | Status               |
|------------|------------------------------------|--|----------------------|
| J5.6       | Ductwork sealing                   | Ductwork in an air-conditioning system with a capacity of 3000 L/s or greater, not located within the only or last room served by the system, must be sealed against air loss in accordance with the duct sealing requirements of AS 4254.1 and AS 4254.2 for the static pressure in the system.   | Capable of Complying |
| J5.7       | Pump systems                       | Pumps and pipework that form part of an air-conditioning system are to be designed in accordance with this clause.   | Capable of Complying |
| J5.8       | Pipework insulation                | Piping, vessels, heat exchangers and tanks containing heating or cooling fluid, where the fluid is held at a heated or cooled temperature, that are part of an air-conditioning system, other than in appliances covered by MEPS, must be provided with insulation in accordance with this clause. | Capable of Complying |
| J5.9       | Space heating                      | A heater used for air-conditioning or as part of an air-conditioning system must be provided with insulation in accordance with this clause  | Capable of Complying |
| J5.10      | Refrigerant chillers               | An air-conditioning system refrigerant chiller must comply with MEPS and the full load operation energy efficiency ratio and integrated part load energy efficiency ratio in Table J5.10a or Table J5.10b when determined in accordance with AHRI 551/591.   | Capable of Complying |
| J5.11      | Unitary air conditioning equipment | Unitary air-conditioning equipment including packaged air-conditioners, split systems, and variable refrigerant flow systems must comply with MEPS and for a capacity greater than or equal to 65 kW <sub>r</sub> where required by this clause.   | Capable of Complying |
| J5.12      | Heat rejection equipment           | The motor rated power of a fan in a cooling tower, closed circuit cooler or evaporative condenser must not exceed the allowances in Table J5.12.<br><br>The fan in an air-cooled condenser must have a motor rated power in accordance with this clause.   | Capable of Complying |



#### 4.9.4. Artificial Lighting and Power (Part J6)

| BCA Clause | Status   | Assessment and Comment  | Status               |
|------------|--|---|----------------------|
| J6.2       | Artificial lighting                            | Artificial lighting is to be designed in accordance with this provision.  | Capable of Complying |
| J6.3       | Interior artificial lighting and power control | Artificial lighting and power control are to be designed and provided in accordance with this provision.                                | Capable of Complying |
| J6.4       | Interior decorative and display lighting       | Interior decorative and display lighting, such as for foyer mural or art display, must be controlled in accordance with this clause.    | Capable of Complying |
| J6.5       | Exterior artificial lighting                   | Artificial lighting around the perimeter of a building must be designed to comply with this clause.                                     | Capable of Complying |
| J6.6       | Boiling water and chilled water storage units  | Power supply to a boiling water or chilled water storage unit is required to be controlled by a time switch in accordance with Spec J6. | Capable of Complying |
| J6.7       | Lifts  | Lifts must be designed to comply with this clause.  | Capable of Complying |
| J6.8       | Escalators and moving walkways                 | No escalators and moving walkways proposed.   | N/A                  |

#### 4.9.5. Heated Water Supply and Swimming Pool and Spa Pool Plant (Part J7)

| BCA Clause | Status           | Assessment and Comment  | Status               |
|------------|------------------|---|----------------------|
| J7.2       | Hot Water Supply | A heated water supply system for food preparation and sanitary purposes must be designed and installed in accordance with Part B2 of NCC Volume Three — Plumbing Code of Australia. | Capable of Complying |

#### 4.9.6. Facilities for Energy Monitoring (Part J8)

| BCA Clause | Status                           | Assessment and Comment   | Status               |
|------------|----------------------------------|--|----------------------|
| J8.3       | Facilities for energy monitoring | Facilities for energy monitoring are required to be provided in accordance with this clause. | Capable of Complying |

## 5. FIRE SAFETY SCHEDULE

The following table is a list of the required fire safety measures for this development. This list is to be treated as a guide as to what the buildings are considered to require.

| NO  | FIRE SAFETY MEASURES<br>(AS SET OUT UNDER CLAUSE 166 OF EP&A<br>ACT REGULATIONS) | STANDARD OF PERFORMANCE  | PROPOSED |
|-----|--|--|----------|
| 1.  | Access panels, doors & hoppers to fire resisting shaft                           | BCA 2019 C3.13 & AS 1905.1-2015 <small>Amdt 1</small>  | YES      |
| 2.  | Automatic fail-safe devices  | BCA 2019 Spec C3.4 automatic smoke doors; D2.21 (b)(iv) auto unlock of doors;  | YES      |
| 3.  | Automatic fire detection and alarm system  | BCA 2019 E2.2, Spec E2.2a; Clause 4 (smoke detection system); Clause 6 (smoke detection for smoke control systems) & AS 1670.1-2018  | YES      |
| 4.  | Automatic fire suppression system  | BCA 2019 E1.5, Spec E1.5 & AS 2118.1-2017 <small>Amdt 1</small> & AS 2118.6-2012   | YES      |
| 5.  | Building occupant warning system   | BCA 2019 Spec E2.2a (Clause 7) & AS1670.1-2018 (Clause 3.22)   | YES      |
| 6.  | Emergency lighting   | BCA 2019 Clause E4.2, E4.3, E4.4 & AS 2293.1 – 2018  | YES      |
| 7.  | Exit signs   | BCA 2019 E4.5, E4.6, E4.8 Spec E4.8 & AS 2293.1- 2018  | YES      |
| 8.  | Fire dampers   | BCA 2019 C3.12, C3.15 & AS1668.1-2015 <small>Amdt 1</small> , AS 1668.2-2012 <small>Amdt 1 &amp; 2</small>   | YES      |
| 9.  | Fire doors   | BCA 2019 C2.12 (separation of equipment); C2.13 (electricity supply systems); C3.3 (separation of external walls & associated openings in fire compartments); C3.4, Spec C3.4; C3.5 (doorways & fire walls); C3.13 (openings in shafts) & AS 1905.1 – 2015 <small>Amdt 1</small> | YES      |
| 10. | Fire rated lift landing doors  | BCA 2019 C3.10 & AS 1735.11-1986   | YES      |
| 11. | Fire hose reel systems (carpark only)  | BCA 2019 E1.4 & AS 2441-2005 <small>Amdt 1</small>   | YES      |
| 12. | Fire hydrant systems   | BCA 2019 E1.3 & AS 2419.1-2005 <small>Amdt 1</small>   | YES      |
| 13. | Fire seals protecting openings in fire resisting components of the building      | BCA 2019 C3.12, C3.15 & Spec C3.15, AS 4072.1-2005 <small>Amdt 1</small> , AS 1530.4.-2014   | YES      |
| 14. | Lightweight construction   | BCA 2019 C1.8 & Spec C1.8  | YES      |
| 15. | Mechanical air handling system   | BCA 2019 E2.2, Table E2.2a; NSW Table E2.2b, Spec E2.2a, Spec E2.2b & AS 1668.1-2015 <small>Amdt 1</small> .<br>Class 7a (carpark building mechanical ventilation systems) BCA 2019 E2.2, Table E2.2a and Clause 5.5 of AS 1668.1-2015 <small>Amdt 1</small> .                   | YES      |

| NO  | FIRE SAFETY MEASURES<br>(AS SET OUT UNDER CLAUSE 166 OF EP&A<br>ACT REGULATIONS) | STANDARD OF PERFORMANCE   | PROPOSED |
|-----|--|---|----------|
| 16. | Portable fire extinguishers  | BCA 2019 E1.6 & AS 2444-2001  | YES      |
| 17. | Smoke dampers  | BCA 2019 E2.2, & Spec C2.5 (9c) & AS 1682.1-2015, AS 1682.2-2015  | YES      |
| 18. | Smoke detectors & heat detectors   | BCA 2019 Spec C3.4 automatic closing smoke doors; E2.2, Spec E2.2a, Spec E2.2b, AS 1670.1-2018 & AS 3786-2014<br>Amdt 1 & 2 | YES      |
| 19. | Smoke doors  | BCA 2019 C2.14, C3.4, Clause 2 Spec C2.5 & Spec C3.4.   | YES      |
| 20. | Warning and operational signs  | EPA Regulation 2000 (Clause 183), D2.23 (signs on exit doors), E3.3 (lifts)   | YES      |

## 6. SUMMARY OF NON-COMPLIANCE ISSUES

The following non-compliance's with the deemed-to-satisfy provisions of the BCA, in relation to the proposed building work, have been identified and are proposed to be dealt by justification against the performance requirements of the BCA in accordance with BCA Clause A2.2.

C1.9 & C1.14

The BCA requires building elements of Type A or B construction to be non-combustible, this includes elements on the external wall. The proposed drawings indicate that external walls are to be cladded.

Further information regarding the awning products and cladding products in particular 05 Timber Look cladding is required for assessment to determine the external wall and any attachments are deemed non-combustible.



SHADE AWNING



WINDOW SHUTTERS



CLADDING - TIMBER LOOK

NSW C2.5

The BCA requires smoke compartments in aged care building not to exceed 500m<sup>2</sup>.

The following smoke compartments **exceed 500m<sup>2</sup> (highlight in red on the diagrams below)**:

### Ground Floor:

1. SC06 506.9m<sup>2</sup>
2. SC09 512.3m<sup>2</sup>
3. SC11 547.3m<sup>2</sup>



### Level 1

4. SC12 532.9m<sup>2</sup>
5. SC16 547.5m<sup>2</sup>
6. SC17 500.5m<sup>2</sup>



Level 2

7. SC21 525.9m<sup>2</sup>
8. SC22 548.7m<sup>2</sup>



Performance justification is proposed.

Ancillary use areas containing equipment or materials that are a high potential fire hazard, must be separated from the sole-occupancy units by smoke proof walls complying with Specification C2.5.

The ancillary use areas referred to above include, but are not limited to, the following:

- (A) A kitchen and related food preparation areas having a combined floor area of more than 30 m<sup>2</sup>.
- (B) A laundry, where items of equipment are of the type that are potential fire sources (e.g. gas fire dryers).
- (C) Storage rooms greater than 10 m<sup>2</sup> used predominantly for the storage of administrative records.

The following ancillary areas exceed the above floor area requirements and require smoke proof walls:

Ground floor

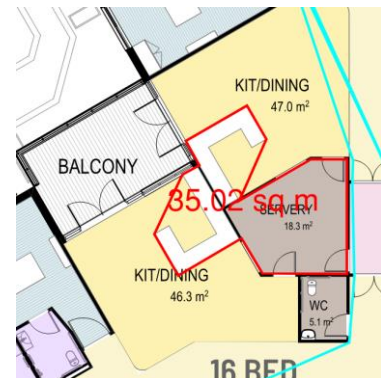
1. Western double kitchen + servery 32m<sup>2</sup>

Level 1

2. Western double kitchen + servery 32m<sup>2</sup>

Level 2

3. Western double kitchen + servery 35m<sup>2</sup>



Performance justification is proposed

D1.4

Generally, the exit travel distances throughout the building meet the requirements of this Clause, with the exception of the following areas:

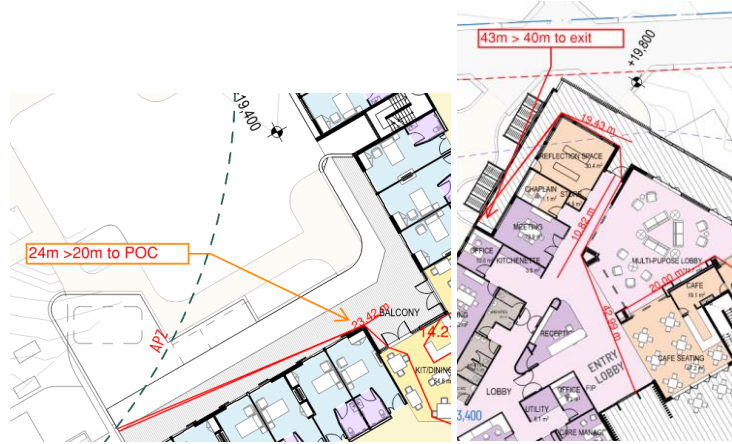
Ground Floor

Common balcony (South west wing)

- 24m > 20m to POC

Walkway to the rear of the Chaplain

- 43m > 40m to exit



Level 2

Terrace

- 24m >20m to POC
- 54.2m > 40m to exit

Community room

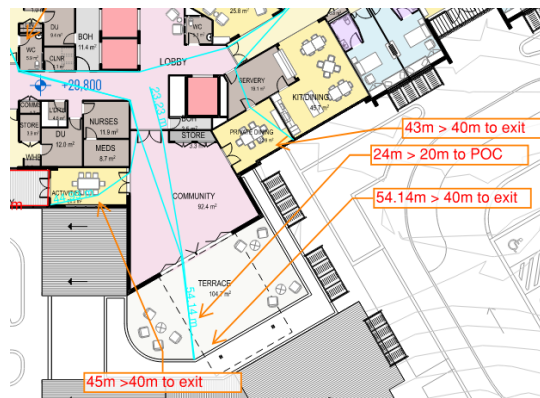
- 48m > 40m to exit

Private dining (off community room)

- 43m > 40m to exit

Activities room (off community room)

- 45m > 40m to exit



Performance justification is proposed

D1.5

The following exits are located more than 60m apart and are not in accordance with DtS provision:

Level 1

Northern exit

- 73m > 60m to alternate exit

Eastern exit

- 67m > 60m to alternate exit

Southern exit

- 64m > 60m to alternate exit

Western exit

- 64m > 60m to alternate exit

Level 2

Northern exit

- 74m > 60m to alternate exit

Southern exit

- 64m > 60m to alternate exit

Western exit

- 64m > 60m to alternate exit



Performance justification is proposed

D1.8

External stairs are proposed in lieu of fire isolated stairs. The proposed drawings indicate the external stair is generally open at one end with attached louvres assumed to be for weather protection.

Architect to confirm the open area of the external stairs with the proposed louvre systems.

D2.17

The BCA requires handrails to be provided in accordance with the provision of this Clause throughout the development.

Handrails have not been provided in the following areas:

1. Lower ground (wellness area)
2. Ground level – Residential areas
3. Level 2 – Residential areas
4. External stairs in lieu of FIS
5. Common lobby on all levels;



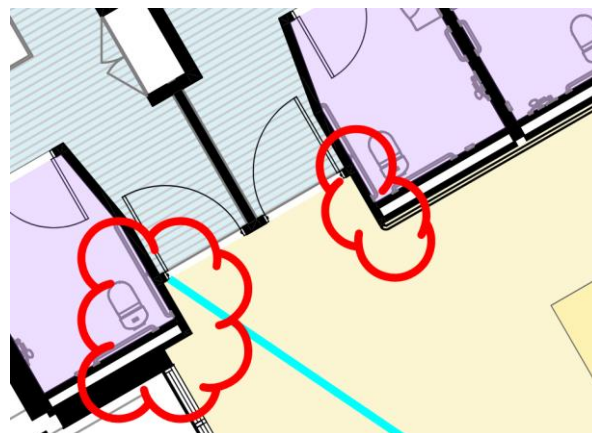


A design change is required.

The following areas have been provided with handrails however, the handrails are not strictly in accordance with DtS provisions:

Lower ground and level 1:

1. Handrails do not wrap around SOU sanitary facility to residential entrances within the ward areas; (A design change is required).
2. Handrails are not provided to both sides. (Performance justification is proposed)



F2.1

Residents are generally provided with their own private facilities however the BCA requires the following:

- (i) For residents in each building or group of buildings, provide—
  - (A) a closet pan and wash basin for each 6 residents or part thereof where private facilities are not provided; and
  - (B) a shower for each 7 residents or part thereof for where private facilities are not provided; and
  - (C) a suitable bath, fixed or mobile

The proposed design does not provide a common fixed or mobile bath is required.

A design change is required.



F4.8

The BCA restricts sanitary compartments from opening directly into a kitchen or pantry or a public dining room.

The following sanitary compartments do not comply with the provisions of this Clause:

Lower ground floor

1. ACC WC/Shower in Dinning (day respite)

Ground Floor

2. WC - southern wing opposite Kit/dinning
3. WC - western wing opposite Kit/dinning

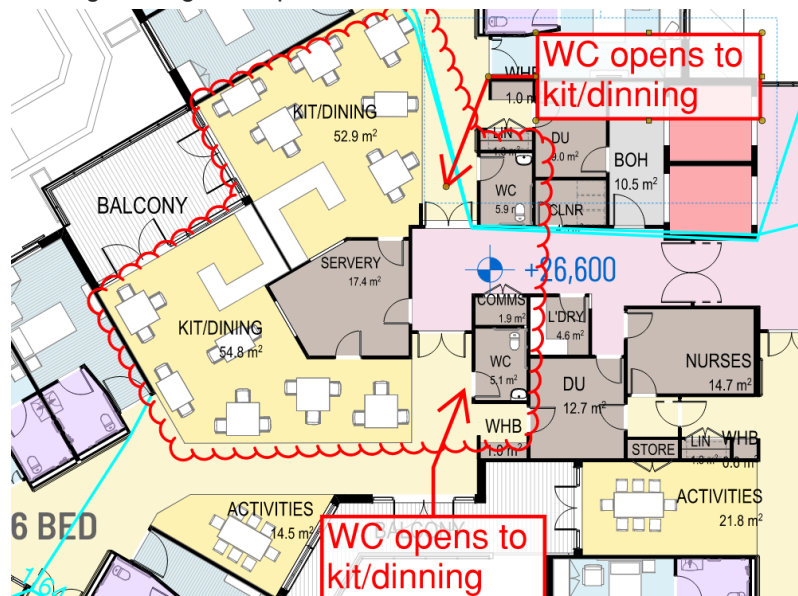
Level 1

4. WC - southern wing opposite Kit/dinning
5. WC - western wing opposite Kit/dinning

Level 2

6. WC - western wing opposite Kit/dinning

A design change is required.



## 7. CONCLUSION

The design as proposed is capable of complying with the Building Code of Australia and will be subject to construction documentation that will provide appropriate details to demonstrate compliance. This report has identified areas of non-compliance with the deemed-to-satisfy provisions and indicates the design intent to demonstrate compliance with the Performance Requirements of the BCA. Whilst the performance-based solutions are to be design developed, it is my view that the solutions will not impact on the current design.

## ATTACHMENT 1

Assessed plans prepared by Calder Flower Architects

| Plan Title              | Drawing No | Revision | Date       |
|-------------------------|------------|----------|------------|
| Lower Ground Floor Plan | A100       | P1       | 15/05/2020 |
| Ground Floor Plan       | A101       | P1       | 15/05/2020 |
| Level 1 Floor Plan      | A102       | P1       | 15/05/2020 |
| Level 2 Floor Plan      | A103       | P1       | 15/05/2020 |
| Roof Plan               | A104       | P1       | 15/05/2020 |
| Smoke Compartments      | A110       | -        | 15/05/2020 |
| Fire Compartments       | A111       | -        | 15/05/2020 |
| Elevations              | A200       | P1       | 15/05/2020 |
| Sections                | A210       | P1       | 15/05/2020 |
| Materials               | A800       | -        | 15/05/2020 |