

BUILDING CODE OF AUSTRALIA COMPLIANCE ASSESSMENT REPORT FOR DA SUBMISSION

MIXED USE DEVELOPMENT COMPRISING OF 4 BUILDINGS

93-107 CECIL AVENUE AND 9-10 ROGER AVENUE, CASTLE HILL

DATE ► 19/12/2024

REPORT NO. ► 13685 Rev. 01

PREPARED FOR ► Alton Property Group

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AEDGROUP

Innovation & expertise in building regulations



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REVISION STATUS				
REPORT NO/REV	DATE	STATUS	WRITTEN	CHECKED
13685 Rev. 00	08/11/2024	DRAFT FOR COMMENT	JN	JS
13685 Rev. 01	19/12/2024	FINAL REPORT	JN	JS

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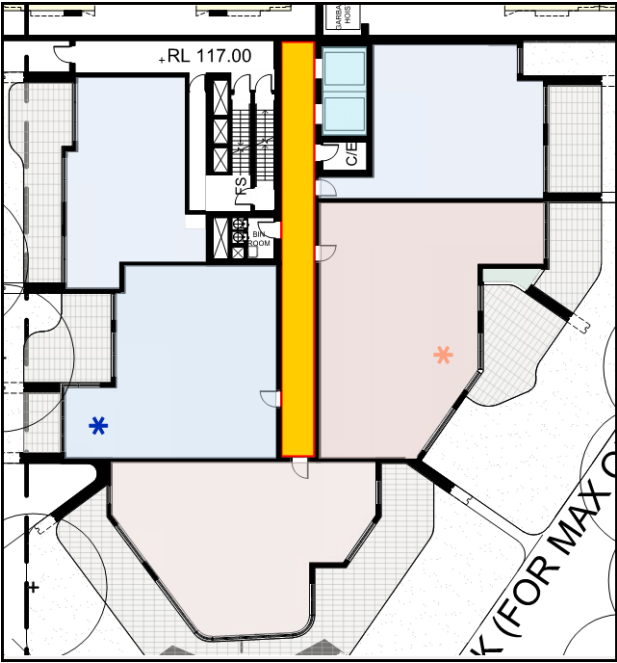
1.0 EXECUTIVE SUMMARY AND RECOMMENDATIONS

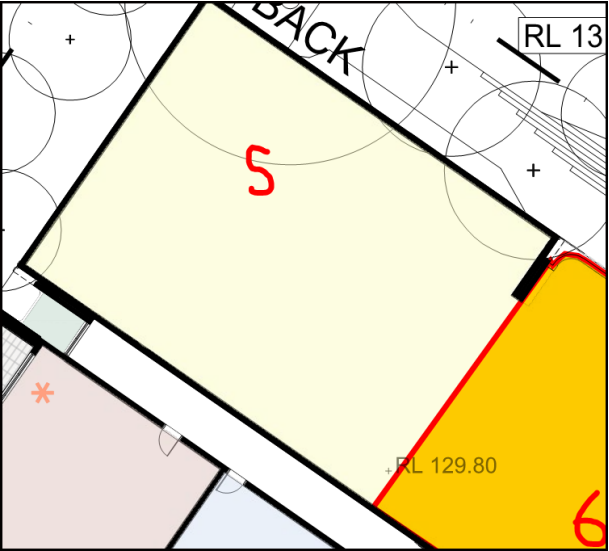
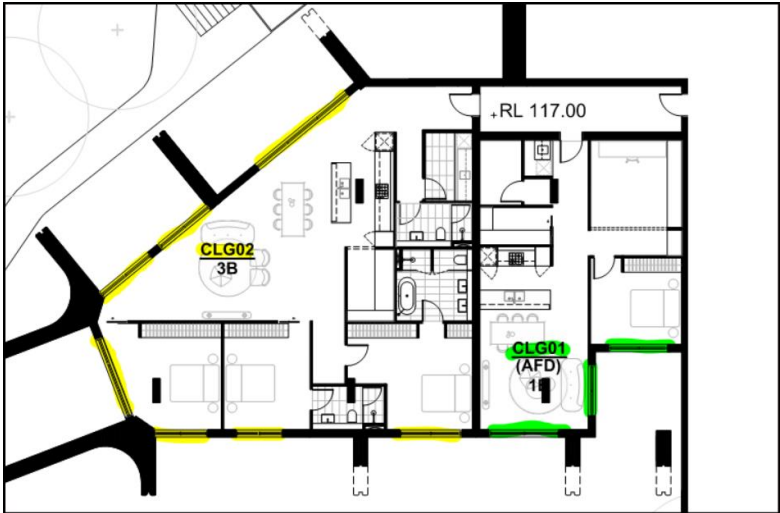
This report provides a Building Code of Australia (BCA) 2022 assessment of the proposed mixed use development comprising of 4 buildings, to be located at 93-107 Cecil Avenue and 9-10 Roger Avenue, Castle Hill, for the purposes of Development Application (DA) submission.

The primary purpose of this report is to identify the non-compliance matters contained in the proposed design against the current Deemed-to-Satisfy (DTS) Provisions of the BCA and to provide compliance recommendations to overcome the DTS non-compliances.

1.1 Recommendations

The following is a list of Deemed-to-Satisfy Provisions that should be addressed either by design amendments, additional information **OR** by way of a Performance Solution:

BCA Clause	Deemed-to-Satisfy Provision to be addressed
<p>NSW D2D3 Number of exits required [2019: D1.2]</p>	<p>DTS Non-compliance:</p> <p>As the building has an effective height of more than 25m, it is required to be provided with a minimum of 2 exits on each storey in each building (except where exempted under D2D3(2)(b)). Buildings A & D only have access to 1 exit on each storey, being the fire isolated stairway, and therefore fail to comply with this clause.</p> <p>Building A: It may be possible for this DTS non-compliance to be addressed via a Performance-Based Solution for as the effective height of this building (calculated in isolation) is 22.4m. This will need to be discussed further with AED's Fire Engineers.</p> <p>Building D: Following a review of the revised drawings, the effective height of this building (calculated in isolation) is 25.6m. This provision of a single exit in this building cannot be supported via a Performance-Based Solution and consequently, this building requires a design change (i.e. reduction in the buildings effective height to less than 25m or provision of 2 exits on each storey).</p> <p>DTS Non-compliance:</p> <p>Ther corridor on the lower ground level of building B has not been provided with an exit/s.</p> 

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>The class 5 commercial unit on level 2 has not been provided with an exit/s.</p> 
<p>D2D5 Exit travel distances [2019: D1.4]</p>	<p>DTS Non-compliance:</p> <p>The client has confirmed that egress from the following residential sole-occupancy units on the lower ground level is via the courtyard doors and not via the entrance doorway. D2D5(1) of this clause details that the entrance doorway of any sole-occupancy unit must be not more than 6m or 20m from an exit or point of choice to 2 exits. This stipulates that the egress pathway from the sole-occupancy units to an exit must be through the entrance doorway.</p> 

BCA Clause

Deemed-to-Satisfy Provision to be addressed



Further information required:

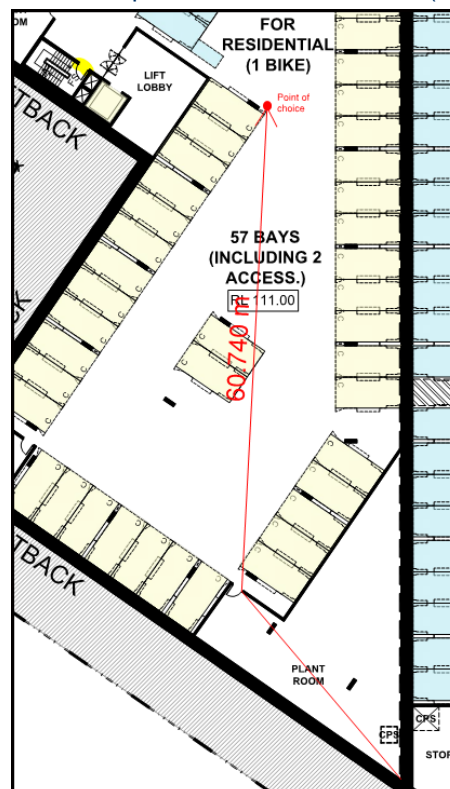
Exit doorways have not been detailed in the following areas, and as such the exit travel distances in these areas could not be assessed:

- Level 2: Commercial unit in building C
- Level 10: Residential units B1004 in building B. This appears to be a drafting error where the door is shown as being blocked off.

DTS Non-compliance:

There are various areas where exit travel distances do not comply:

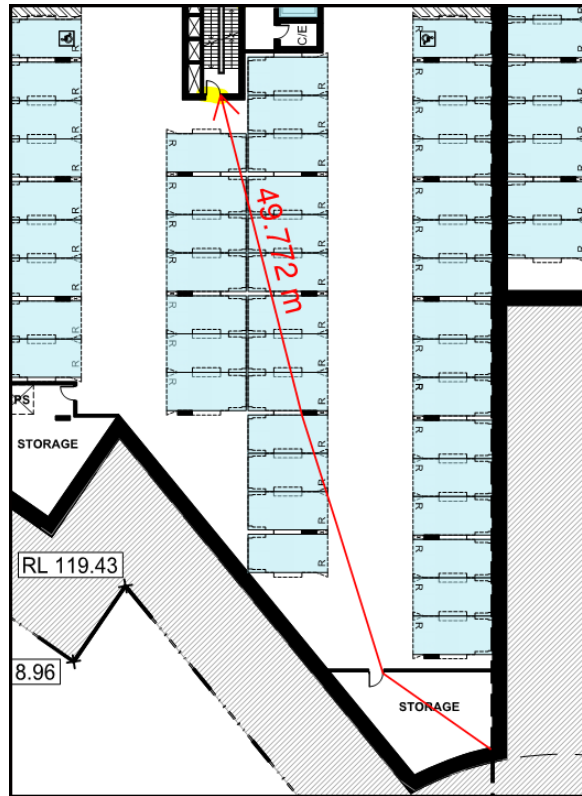
Basement 2: More than 20m to a point of choice to an exit (circa 60.7m).



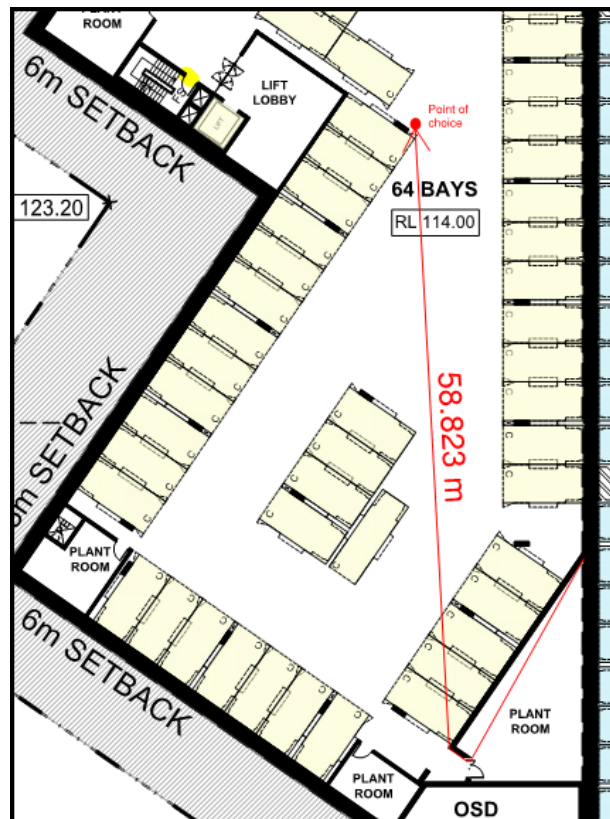
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Basement 2: More than 40m to one exit (circa 49.7m).



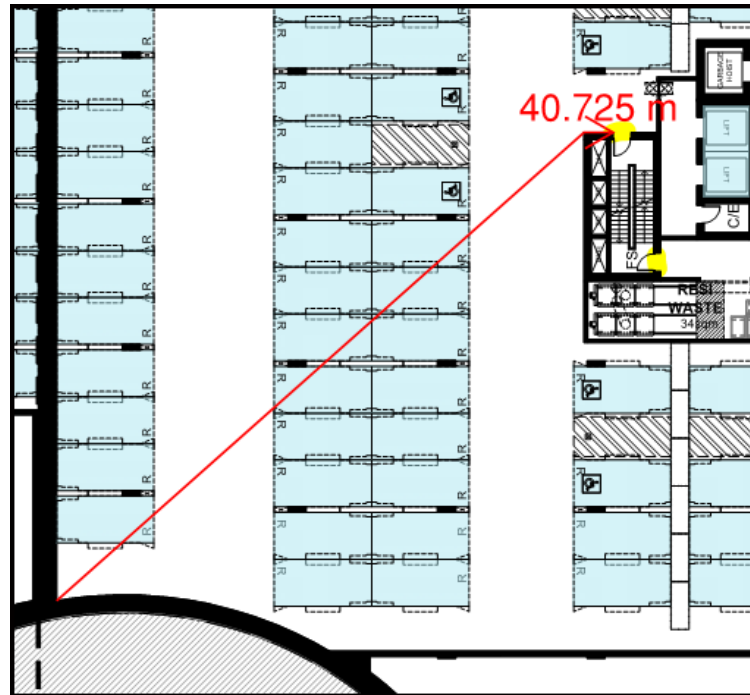
Basement 1: More than 20m to a point of choice to an exit (circa 58.8m).



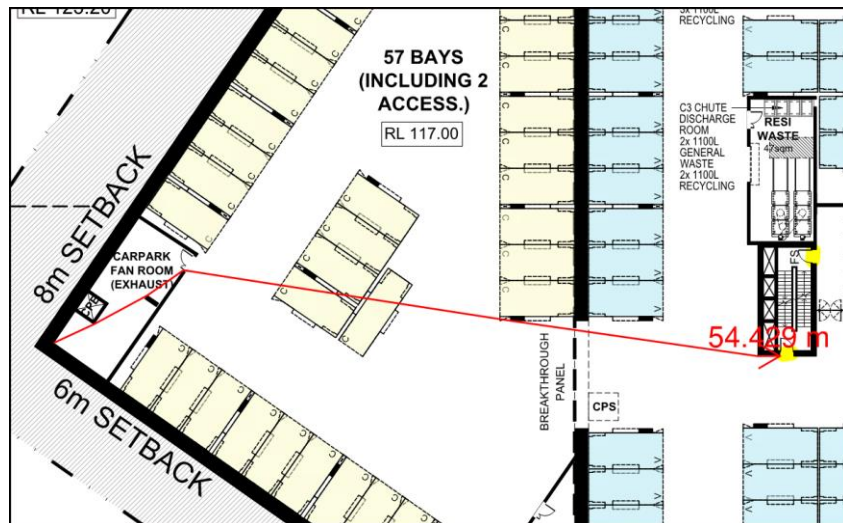
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Basement 1: More than 40m to one exit (circa 40.7m).



Lower Ground: More than 40m to one exit (circa 54.5m).

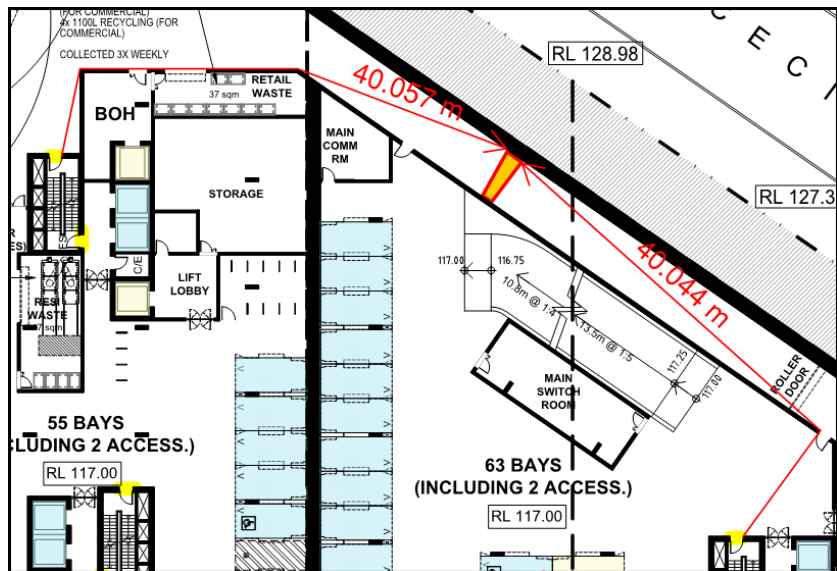




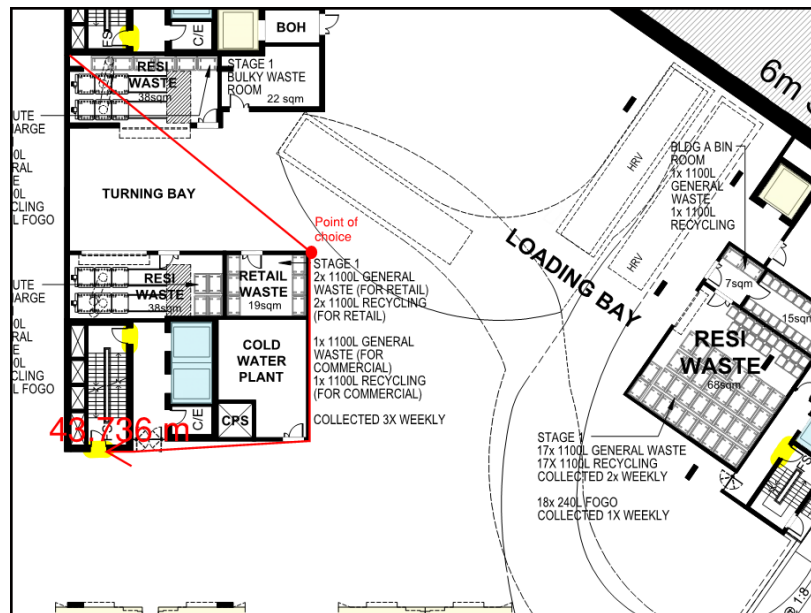
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Lower Ground: More than 40m to one exit (non-complaint areas highlighted).



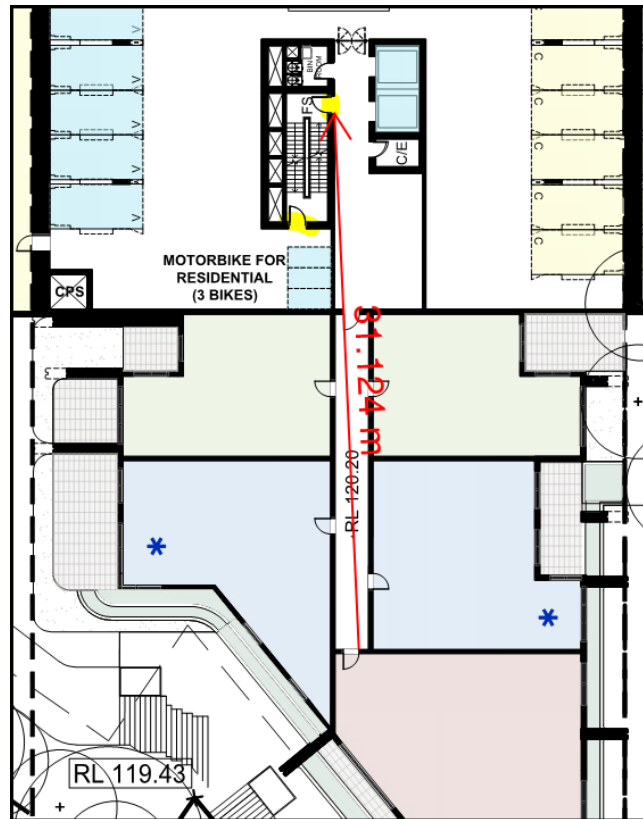
Lower Ground: More than 40m to one exit (circa 43.7m).



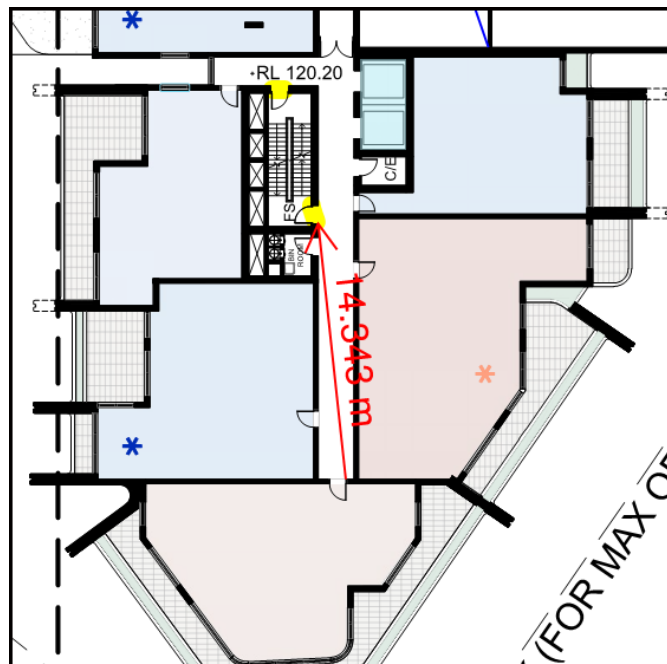
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Ground: More than 6m from an exit or a point of choice (worst case circa 31.1m) and more than 20m from an exit or a point of choice for an area not within a SOU (worst case circa 31.1m).

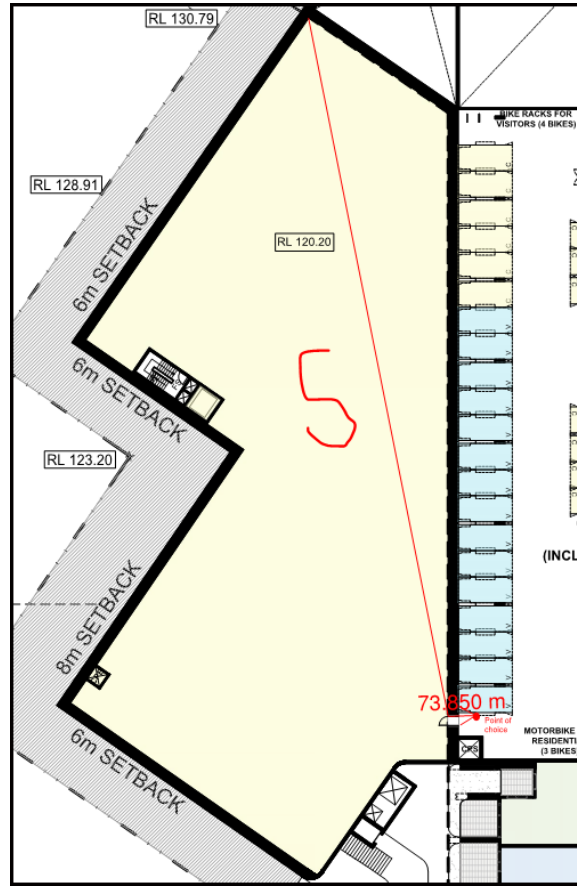


Ground: More than 6m from an exit of a point of choice (worst case circa 14.3m).

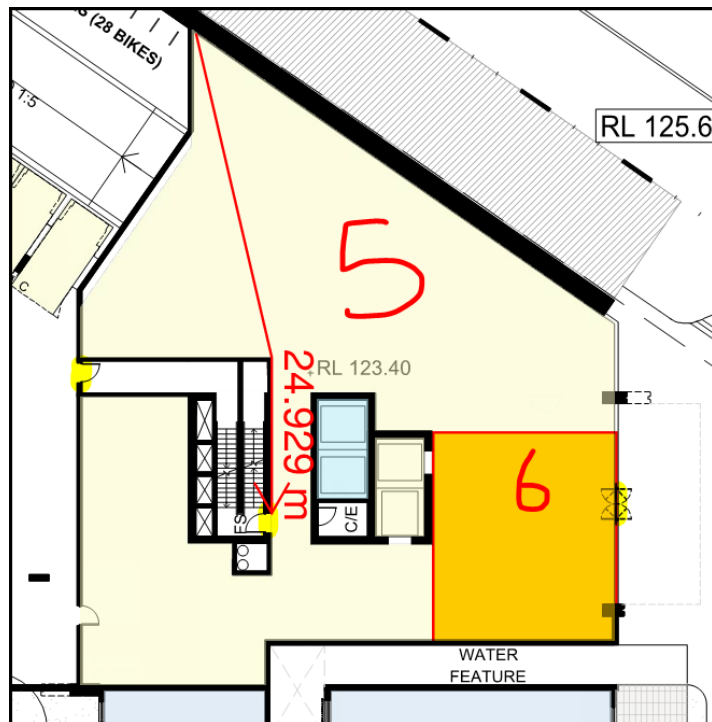


BCA Clause | **Deemed-to-Satisfy Provision to be addressed**

Ground: More than 20m to a point of choice (circa 73.8m) and more than 40m to a single exit (circa 85.9m)

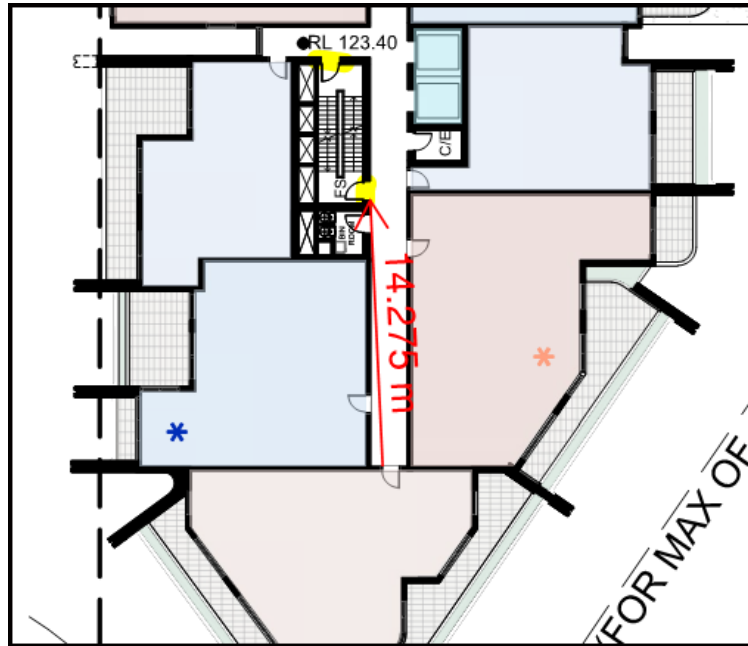


Upper Ground: More than 20m to single exit (circa 24.9m)

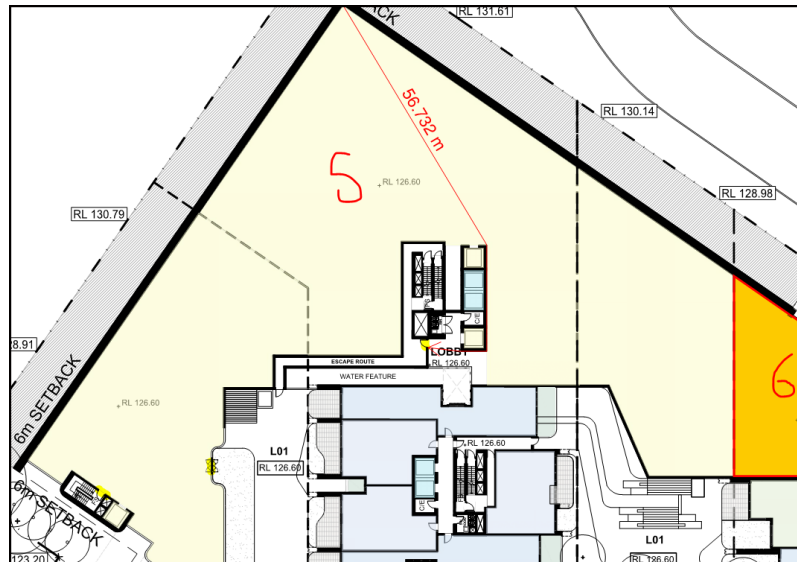


BCA Clause	Deemed-to-Satisfy Provision to be addressed
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Upper Ground: More than 6m to a single exit or a point of choice (worst case circa 14.2m)

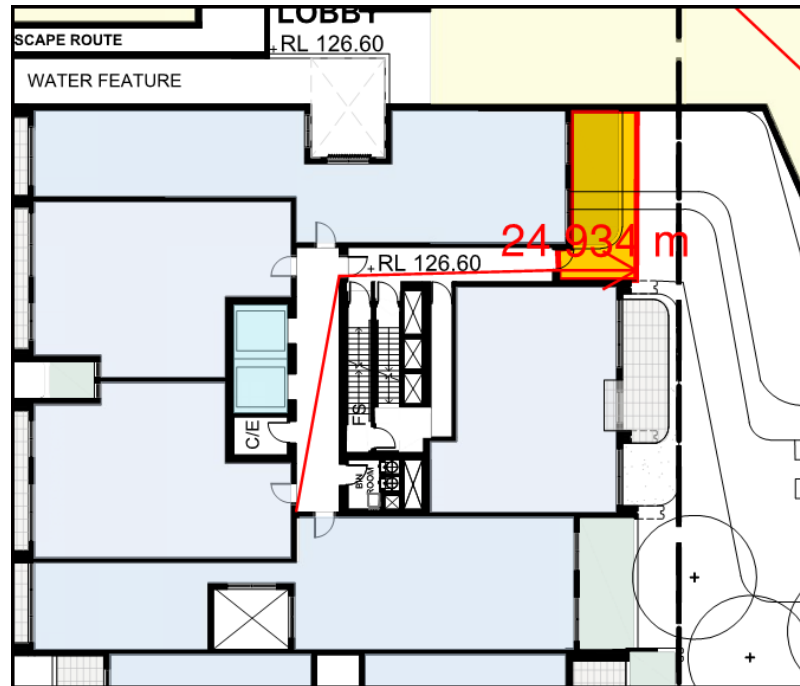


Level 1: More than 40m to an exit (circa 56.7m).

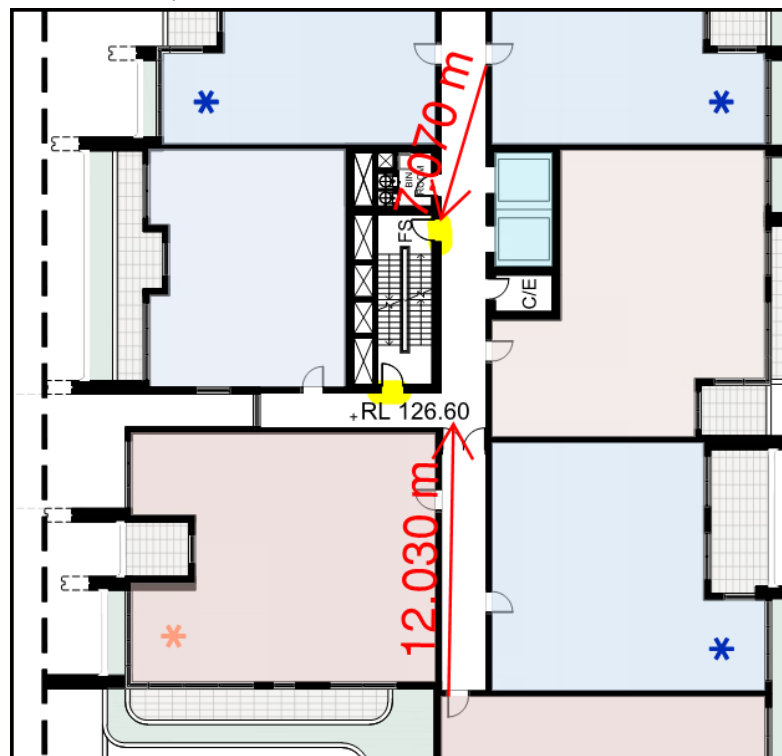


BCA Clause	Deemed-to-Satisfy Provision to be addressed
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Level 1: More than 20m from an exit or a point of choice (worst case circa 24.8m) and more than 20m from an exit or a point of choice for an area not within a SOU (worst case circa 24.9m).

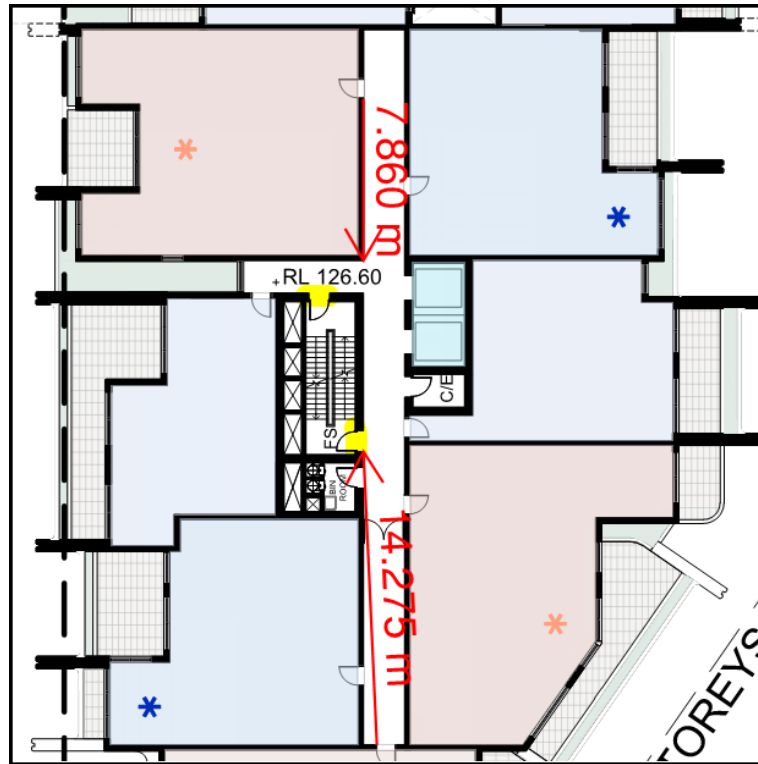


Level 1: More than 6m to a single exit (worst case circa 7.0m) or to a point of choice (worst case circa 12.0m).

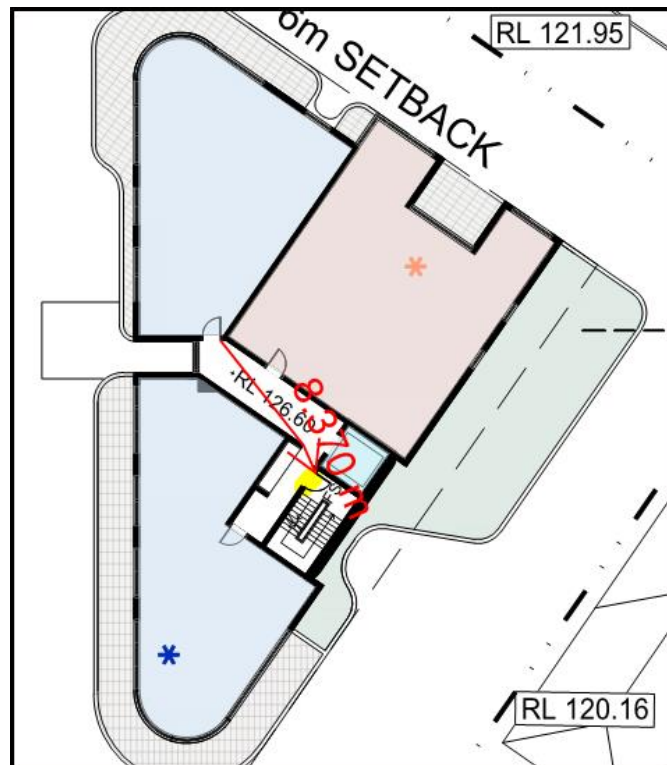


BCA Clause **Deemed-to-Satisfy Provision to be addressed**

Level 1: More than 6m to a point of choice (worst case circa 14.2m).



Level 1: More than 6m to a single exit (worst case circa 8.3m).





BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>Non-compliant travel distances were also identified on levels 2 to 26 and have been listed below:</p> <p><u>Level 2:</u></p> <ul style="list-style-type: none">• <u>Building A:</u> More than 6m from front door of furthest unit to a single exit (circa 8.1m).• <u>Building B (Northern side):</u> More than 20m from front door of furthest unit to a single exit (circa 30.0m).• <u>Building B (Northern side):</u> More than 20m from area not within SOU to a single exit (circa 30.4m).• <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.3m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 17.1m).• <u>Building C (Middle side):</u> More than 6m from front door of furthest unit to a point of choice (circa 15.1m).• <u>Building C (Northern side):</u> More than 20m from area not within SOU to a single exit (circa 21.8m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a point of choice (circa 11.9m).• <u>Building D:</u> More than 6m from front door of furthest unit to a single exit (circa 9.1m). <p><u>Level 3:</u></p> <ul style="list-style-type: none">• <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.2m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 15.4m).• <u>Building C (Northern side):</u> More than 20m from area not within SOU to a single exit (circa 21.8m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 13.9m).• <u>Building D:</u> More than 6m from front door of furthest unit to a single exit (circa m). <p><u>Level 4:</u></p> <ul style="list-style-type: none">• <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.3m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 13.9m).• <u>Building D:</u> More than 6m from front door of furthest unit to a single exit (circa 9.1m). <p><u>Levels 5 to 9:</u></p> <ul style="list-style-type: none">• <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.2m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 8.6m).





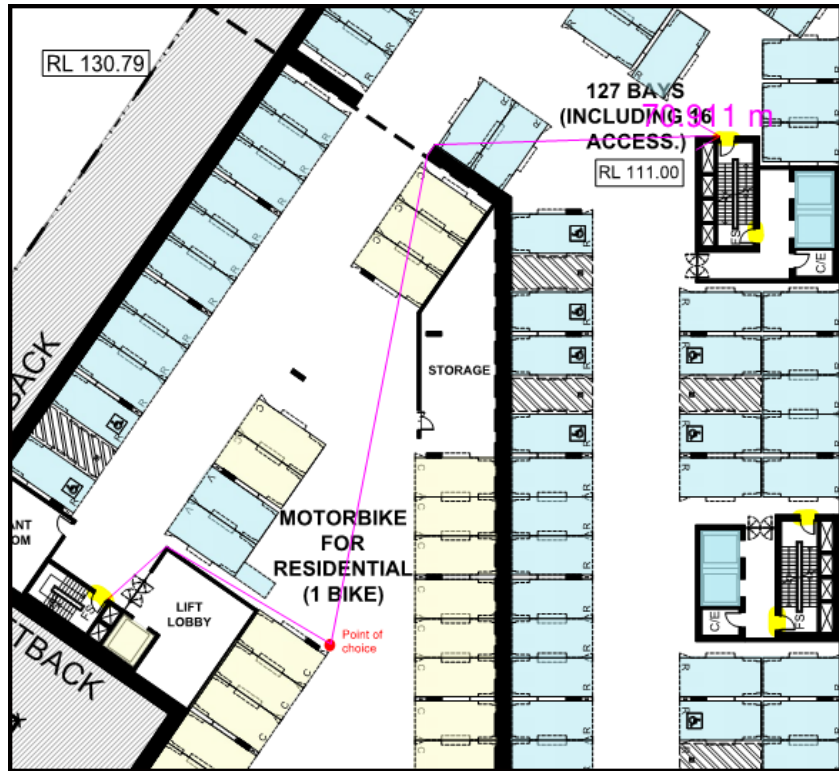
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p><u>Level 10:</u></p> <ul style="list-style-type: none">• <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 6.5m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 8.6m). <p><u>Level 11:</u></p> <ul style="list-style-type: none">• <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 15.6m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 7.0m). <p><u>Level 12:</u></p> <ul style="list-style-type: none">• <u>Building B (Southern side):</u> More than 20m from furthest point on communal open space to point of choice (circa 25.6m).• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 16.3m). <p><u>Levels 13 to 14:</u></p> <ul style="list-style-type: none">• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m).• <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 16.3m). <p><u>Level 15:</u></p> <ul style="list-style-type: none">• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m).• <u>Building C (Southern side):</u> More than 20m from further point on communal open space to an exit (circa 22.7m). <p><u>Level 16 to 25:</u></p> <ul style="list-style-type: none">• <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m). <p><u>Level 26:</u></p> <ul style="list-style-type: none">• <u>Building C (Northern side):</u> More than 20m from further point on communal open space to an exit (circa 22.7m).
<p>D2D6 Distance between alternative exits [2019: D1.5]</p>	<p><u>DTS Non-compliance:</u></p> <p>There are various areas where the distance between alternative exits exceeds the maximum allowable:</p>



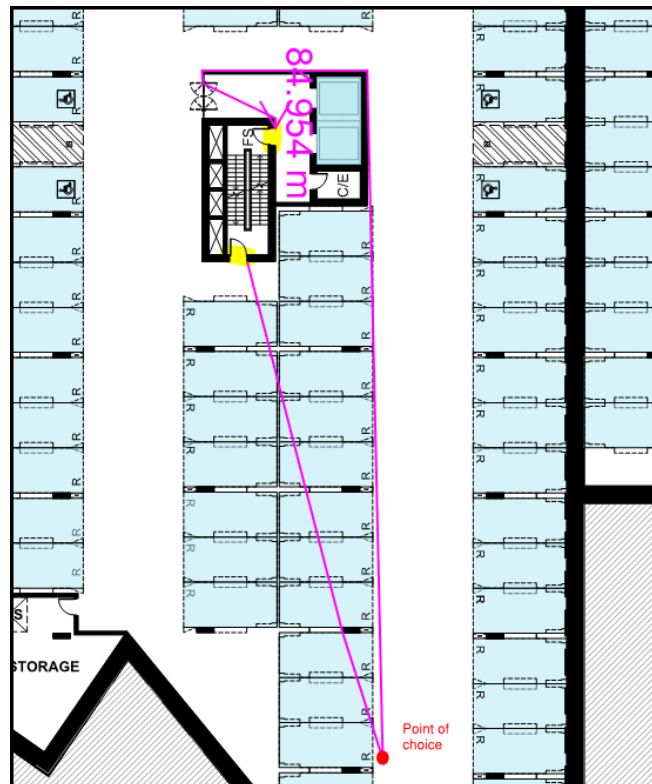
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Basement 2: The distance between the alternative exits exceeds 60m (circa 70.9m)



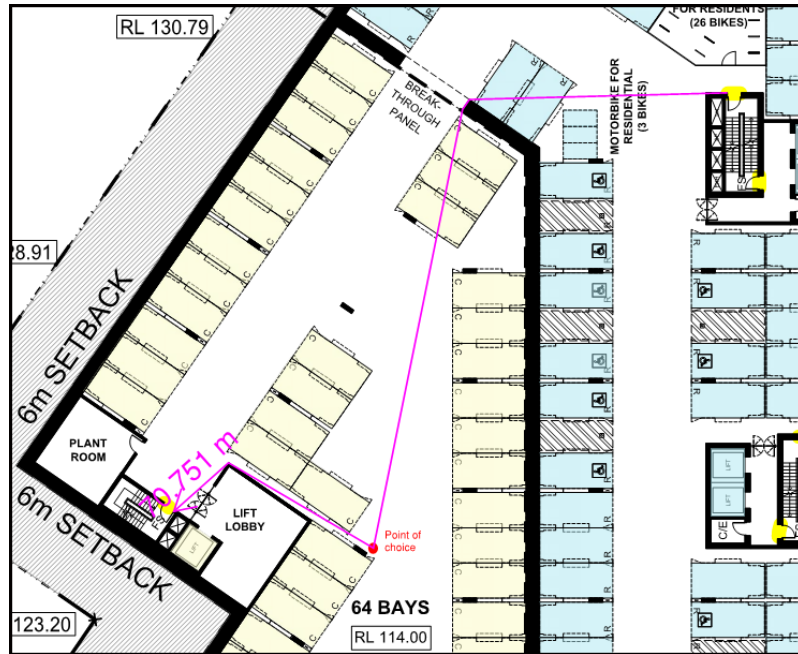
Basement 2: The distance between the alternative exits exceeds 60m (circa 84.9m)



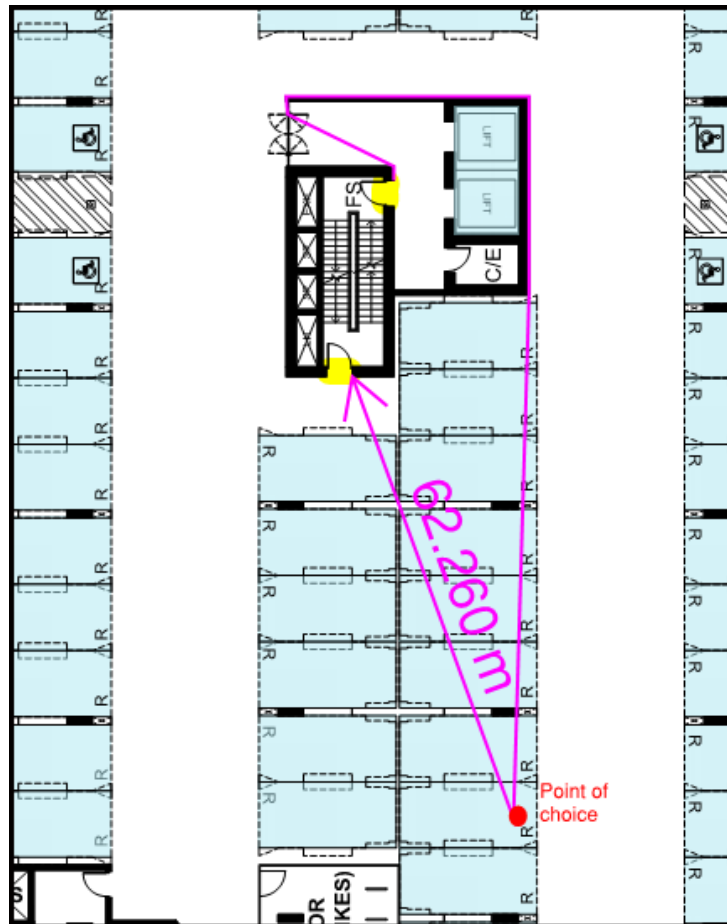
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Basement 1: The distance between the alternative exits exceeds 60m (circa 70.5m)



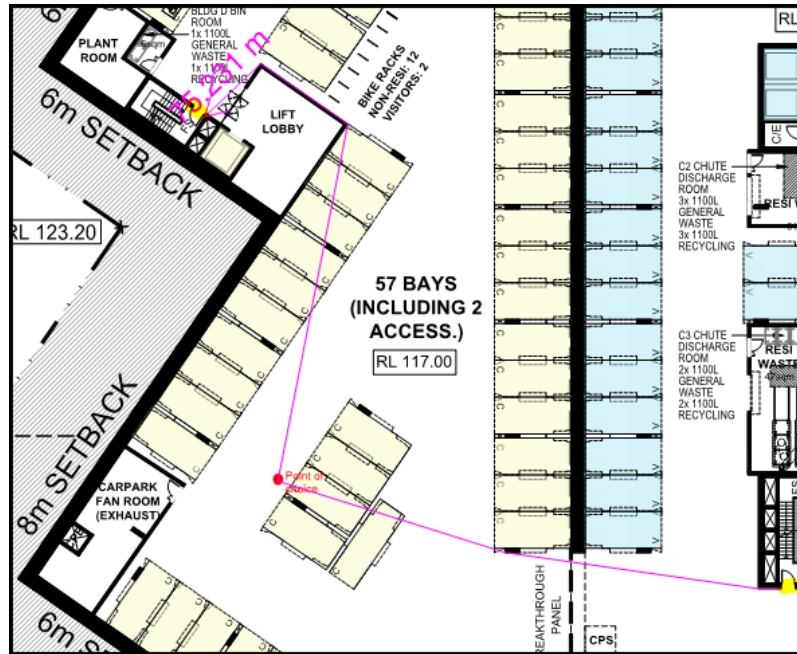
Basement 1: The distance between the alternative exits exceeds 60m (circa 62.6m)



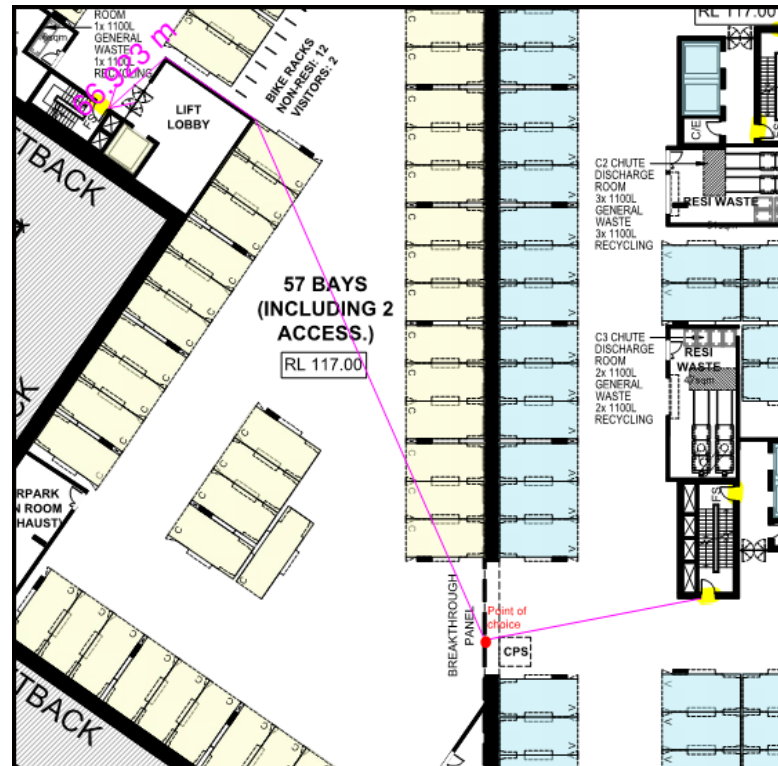
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Lower Ground: The distance between the alternative exits exceeds 60m (circa 75.2m)



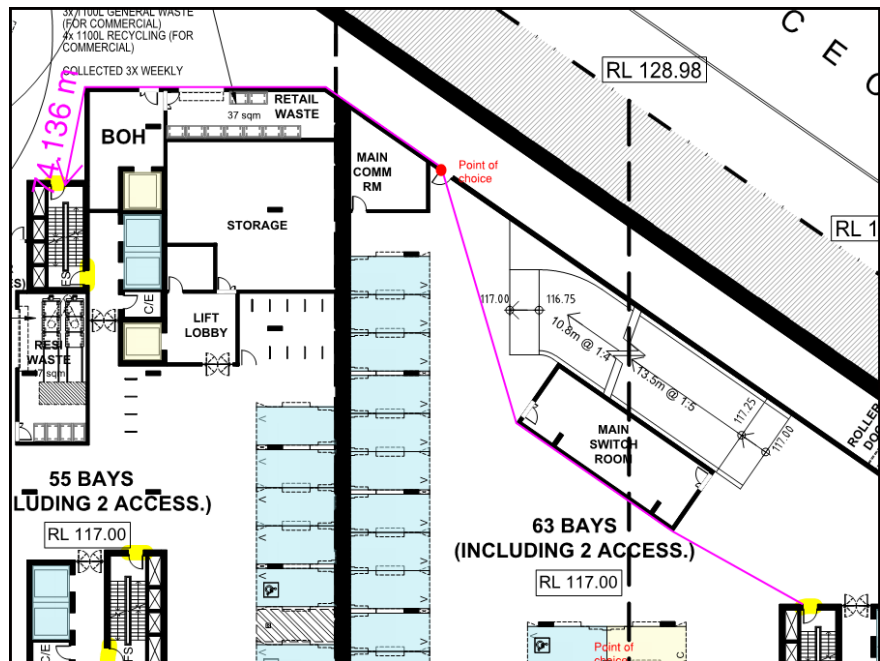
Lower Ground: The distance between the alternative exits exceeds 60m (circa 66.9m)



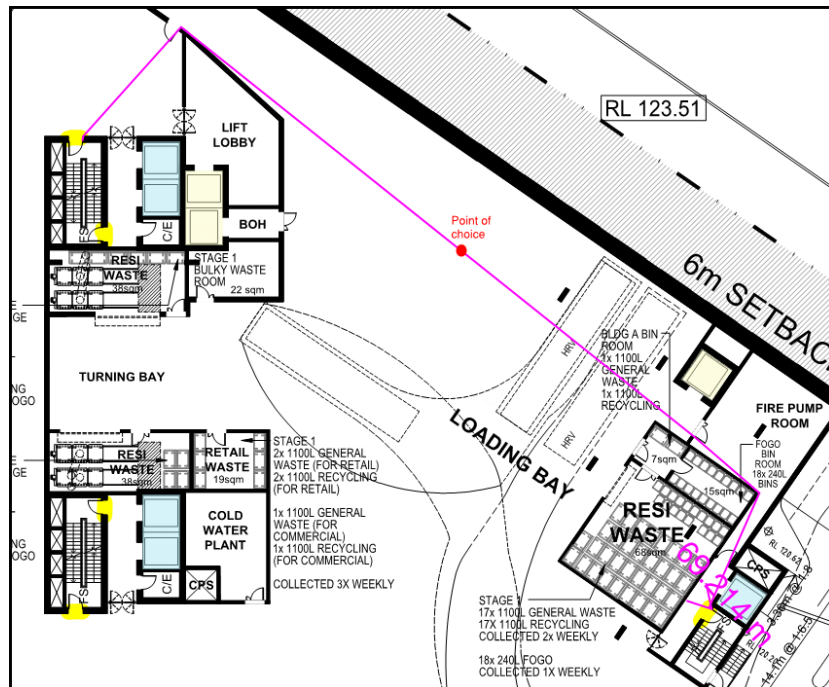
BCA Clause

Deemed-to-Satisfy Provision to be addressed

Lower Ground: The distance between the alternative exits exceeds 60m (circa 74.1m).



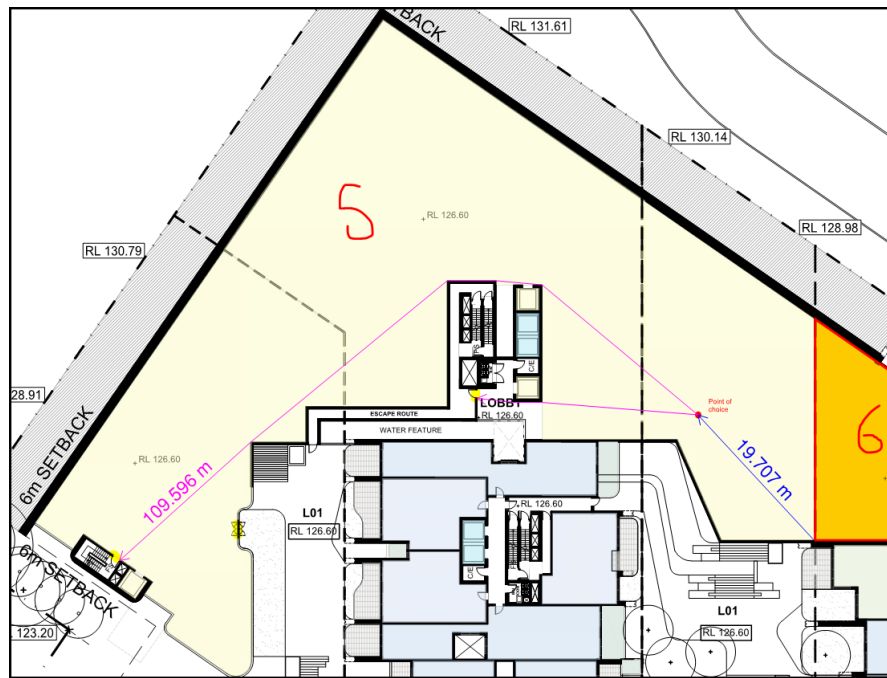
Lower Ground: The distance between the alternative exits exceeds 60m (circa 69.2m).



BCA Clause

Deemed-to-Satisfy Provision to be addressed

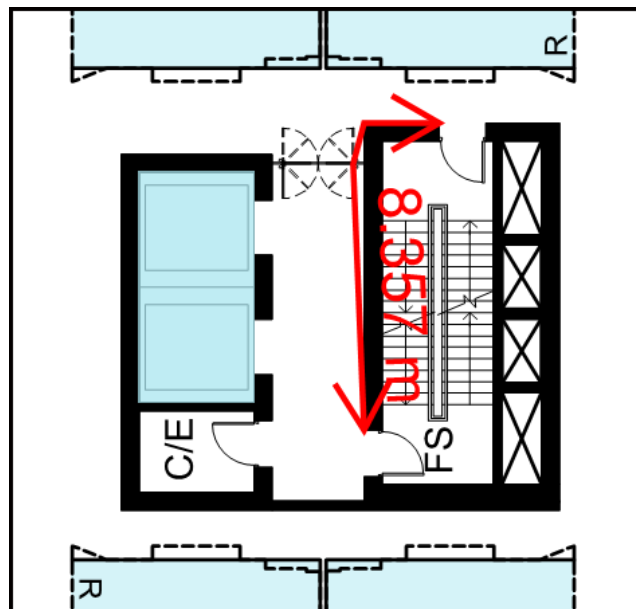
Level 1: The distance between the alternative exits exceeds 60m (circa 109.52m).

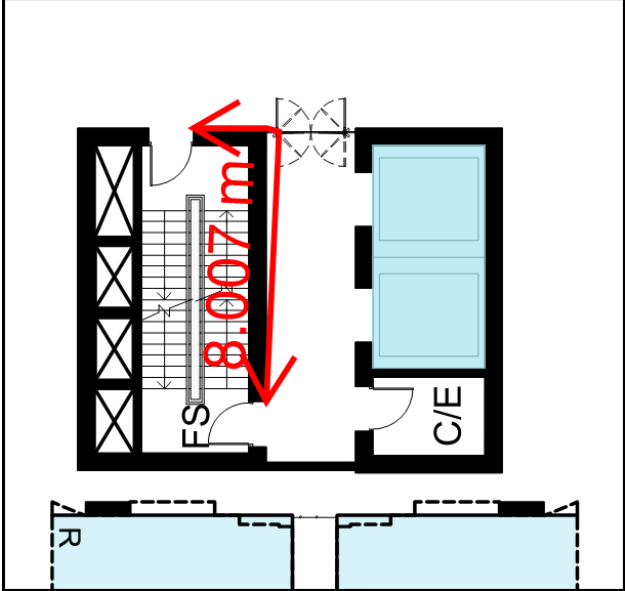
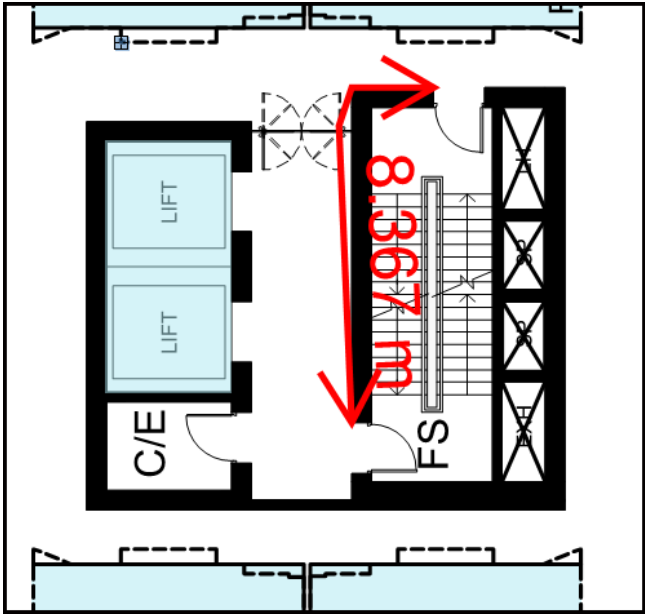


DTS Non-compliance:

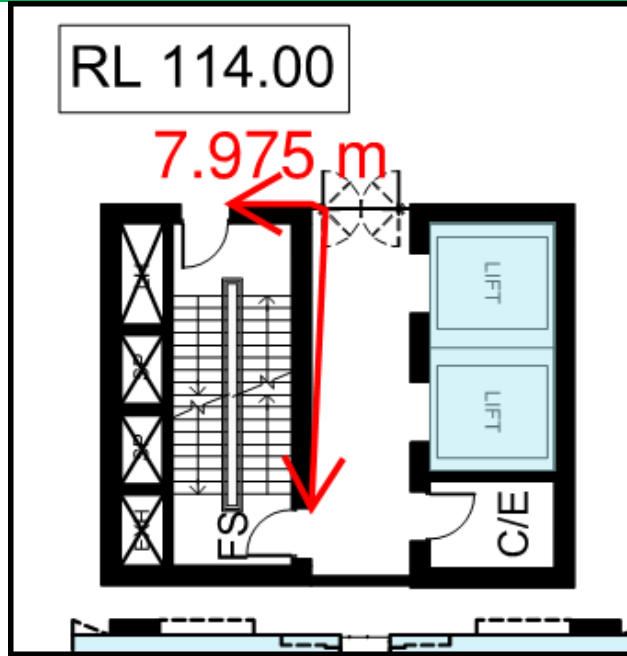
There are various areas where the distance between alternative exits is less than the 9m:

Basement 2: The distance between alternative exits is less than 9m in the following areas:

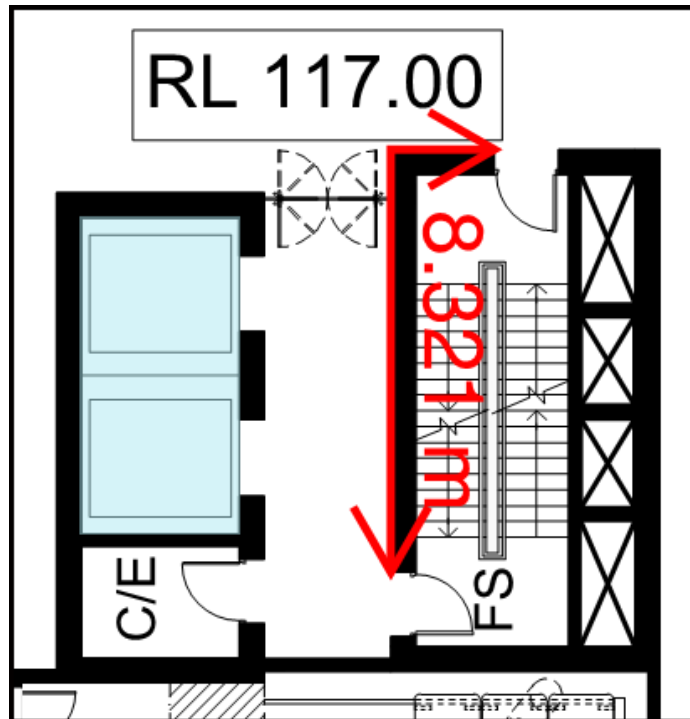


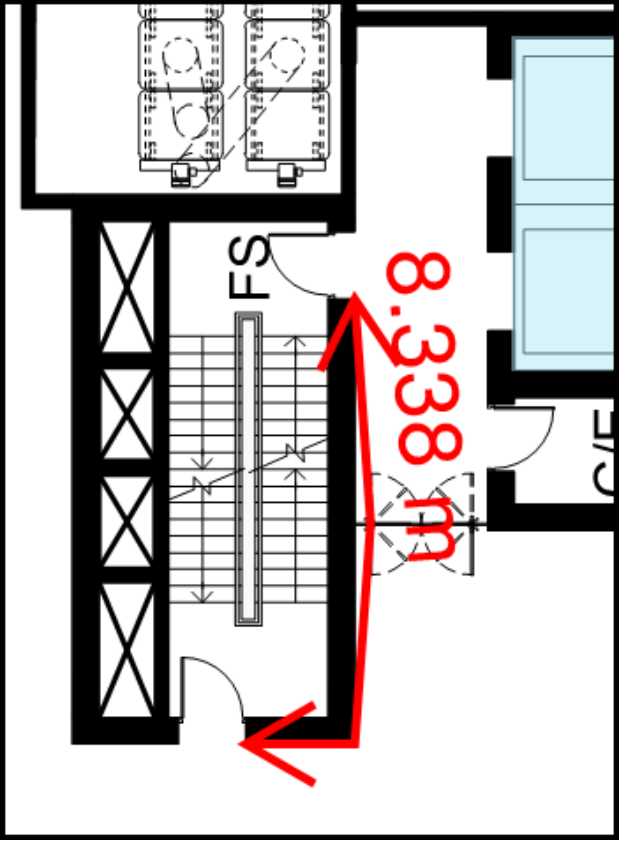
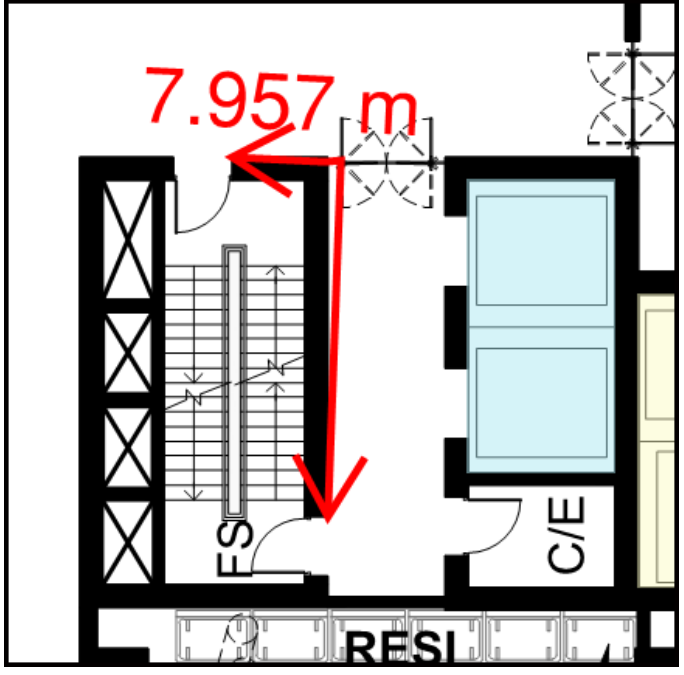
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 <p>Basement 1: The distance between alternative exits is less than 9m in the following areas:</p> 

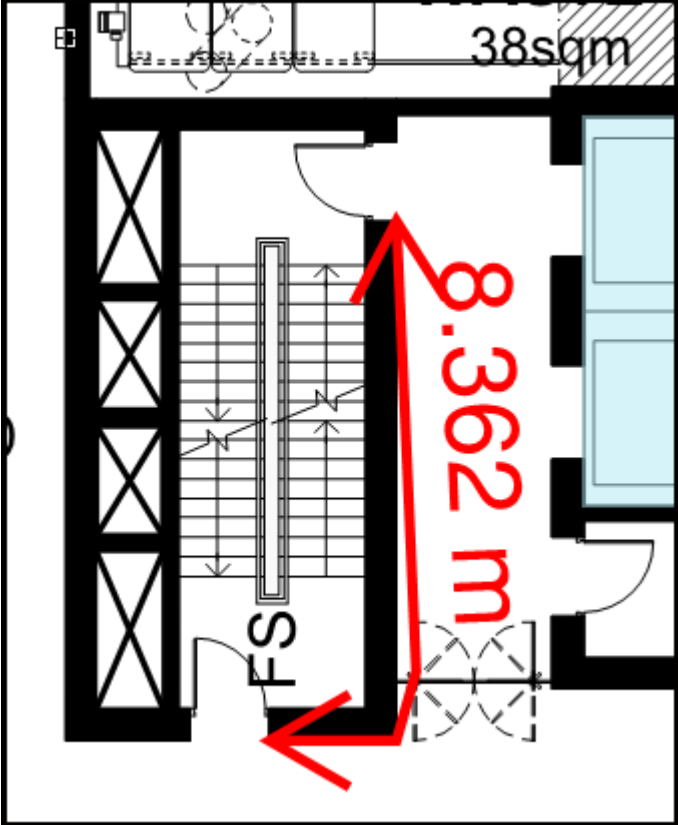
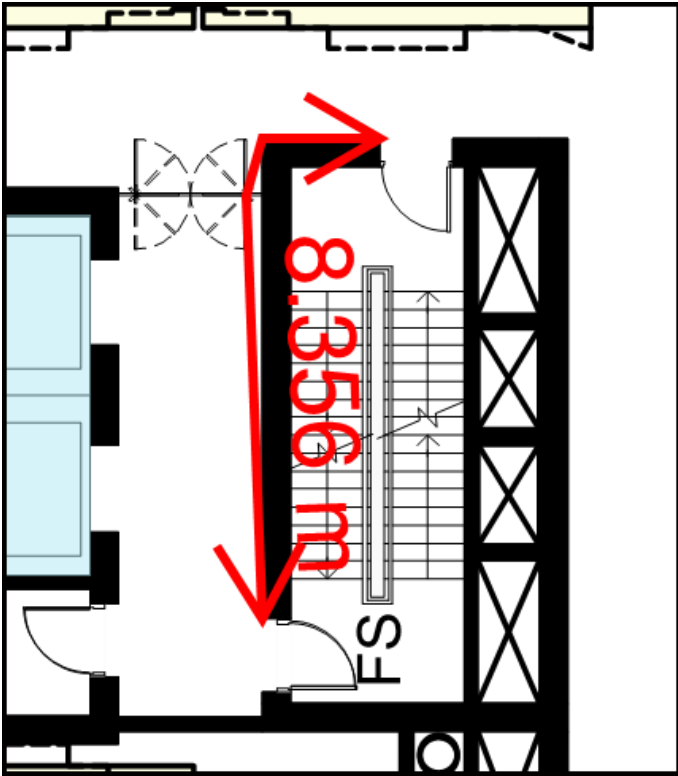
BCA Clause	Deemed-to-Satisfy Provision to be addressed
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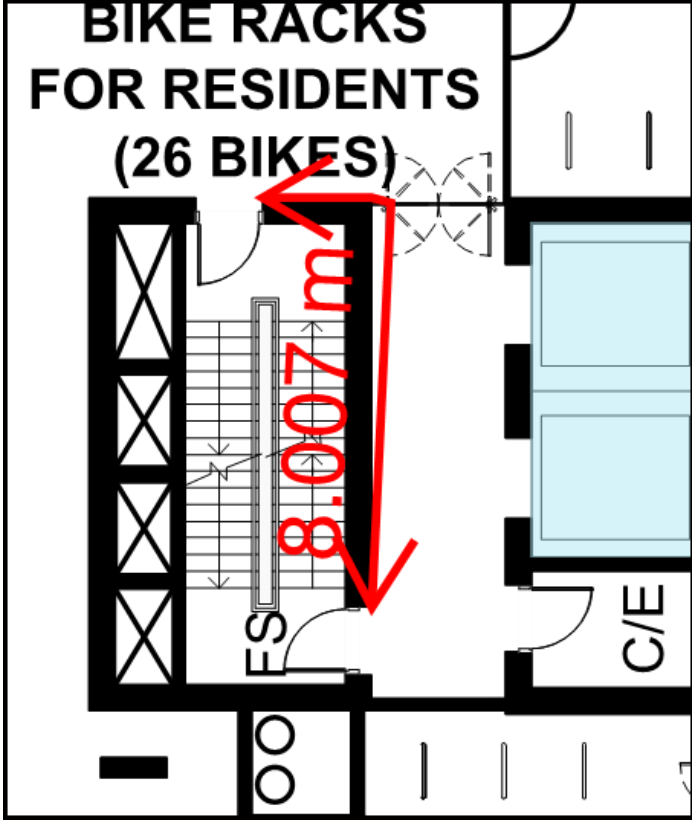
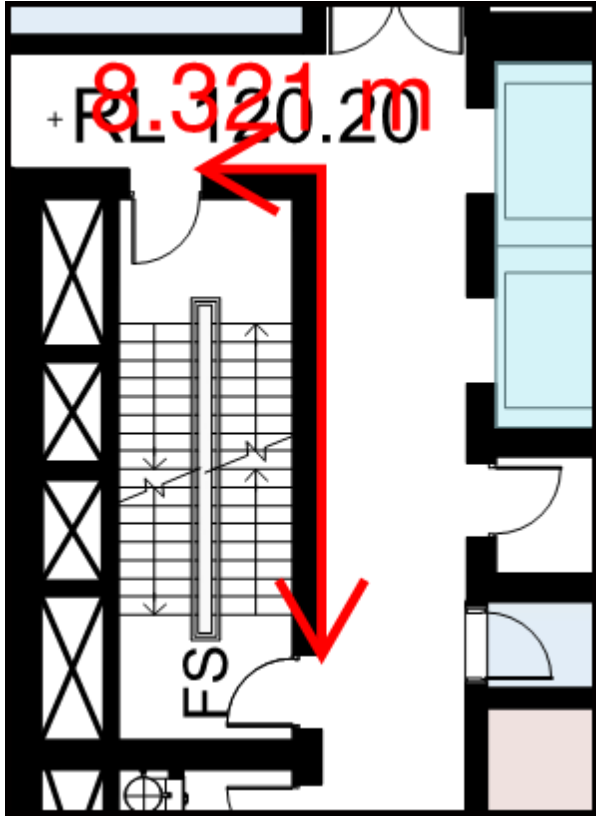


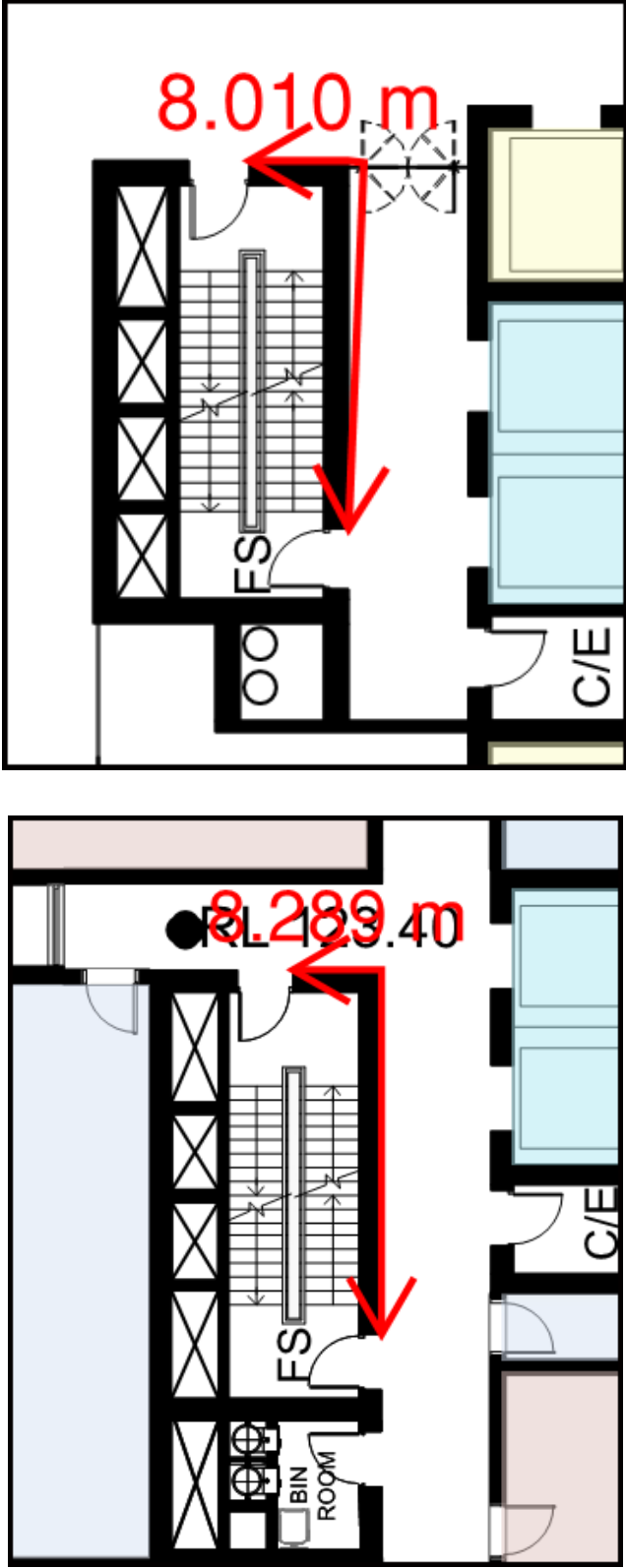
Lower Ground: The distance between alternative exits is less than 9m in the following areas:



BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 

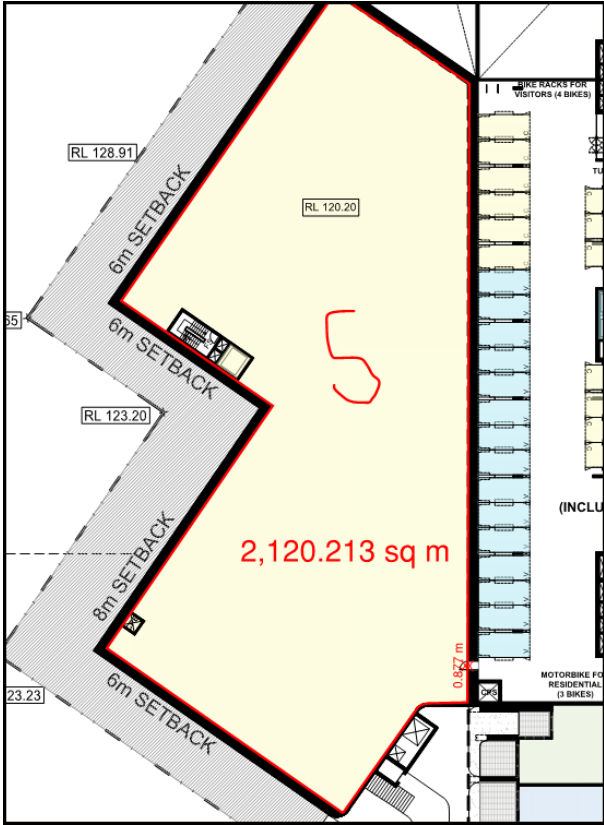
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 <p>Ground Floor: The distance between alternative exits is less than 9m in the following areas:</p> 

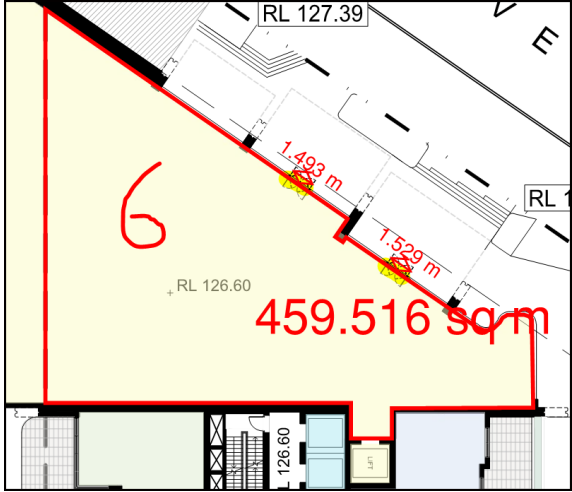
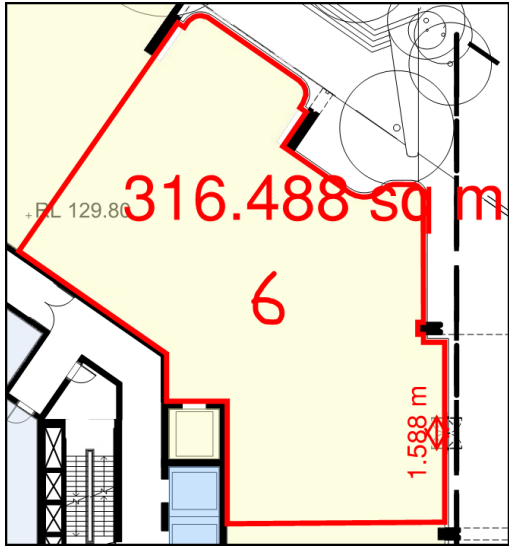
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>BIKE RACKS FOR RESIDENTS (26 BIKES)</p>  <p>8.007 m</p>  <p>8.321 m</p>

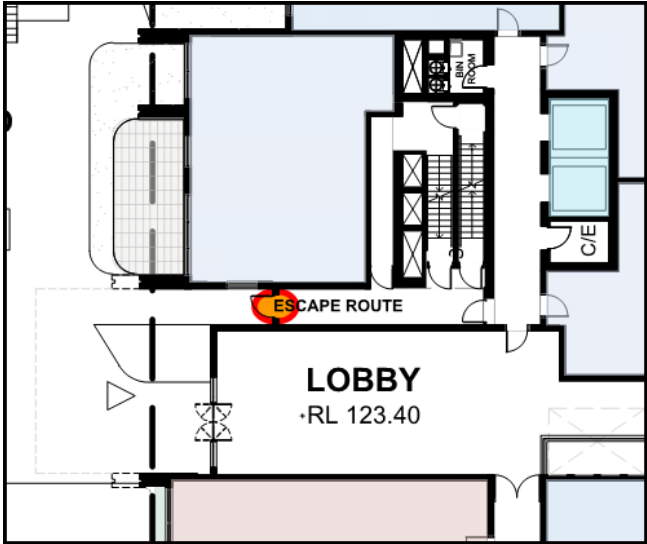
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>Upper Ground: The distance between alternative exits is less than 9m in the following areas:</p>  <p>The top diagram shows a floor plan with a staircase labeled 'FS' and a common exit labeled 'C/E'. A red double-headed arrow indicates a distance of 8.010 m between two exits. The bottom diagram shows a similar floor plan with a staircase labeled 'FS', a common exit labeled 'C/E', and a 'BIN ROOM'. A red double-headed arrow indicates a distance of 8.289 m between two exits.</p>

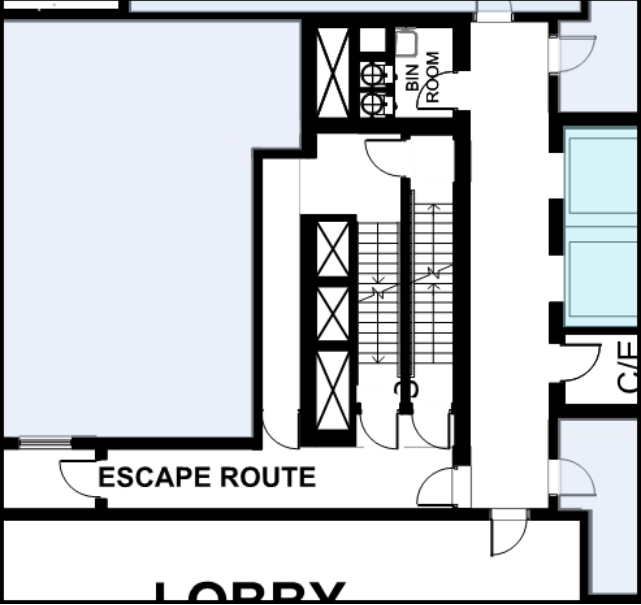

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>Non-compliant distances between alternative exits were also identified in other areas and have been listed below:</p> <p><u>Level 1 to 2:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 4.6m).• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 2:</u></p> <ul style="list-style-type: none">• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 3:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 4 to 9:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).

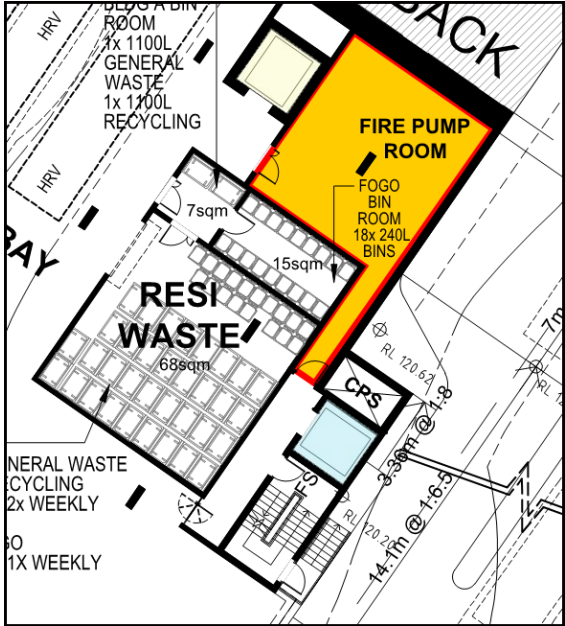
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p><u>Level 10:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.4m).• <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 11:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.5m). <p><u>Level 12 to 15:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.8m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 16 to 18:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).• <p><u>Level 19:</u></p> <ul style="list-style-type: none">• <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).• <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.7m).

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>Level 20:</p> <ul style="list-style-type: none"> • <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). • <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <p>Level 21-26:</p> <ul style="list-style-type: none"> • <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <p>DTS Non-compliance:</p> <p>All scissor stairways are alternative paths of travel that converge such that they become less than 6m apart from each other. This will need to be addressed via a performance-based solution.</p>
<p>NSW D2D8</p> <p>Width of exits and paths of travel to exits</p> <p>[2019: D1.6(b), (c), (d) and (e)]</p>	<p>Further information required:</p> <p>Level 2: The commercial space to the northern side of building C has been assessed as a class 5 and has a floor area of approximately 304m². In accordance with D2D18, it can accommodate a maximum of 31 persons and therefore the aggregate width of exits must be no less than 1m. As there are no exit doorways detailed, it is unclear if the widths of the exit/s comply.</p>
<p>NSW D2D9</p> <p>Width of doorways in exits or paths of travel to exits</p> <p>[2019: D1.6, NSW D1.6(f)(vi)]</p>	<p>DTS Non-compliance:</p> <p>Ground floor: The commercial space in building D has been assessed as a class 5 and has a floor area of approximately 2,120m². In accordance with D2D18, it can accommodate a maximum of 212 persons and therefore the aggregate width of exits must be no less than 2.5m. As only a single doorway is provided, it must have a minimum width of 2.25m. The width of the doorway is circa 0.87m and does not comply.</p>  <p>The diagram shows a site plan for building D. The building footprint is outlined in red. It features setbacks of 6m on three sides and 8m on one side. A doorway is shown with a width of 0.87m. The floor area is labeled as 2,120.213 sq m. Surrounding areas include bike racks for visitors and residential motorbikes.</p> <p>Level 1: The retail space in building B has been assessed as a class 6 and has a floor area of approximately 460m². In accordance with D2D18, it can accommodate a</p>

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>maximum of 460 persons and therefore the aggregate width of exits must be no less than 4m. As two doorways are provided, the aggregate width of both doors must be 3.5m. The aggregate width of both doors is circa 3.0m and does not comply.</p>  <p>Level 2: The retail space in building C has been assessed as a class 6 and has a floor area of approximately 317m². In accordance with D2D18, it can accommodate a maximum of 317 persons and therefore the aggregate width of exits must be no less than 3m. As only a single doorway is provided, it must have a minimum width of 2.75m. The width of the doorway is circa 1.55m and does not comply.</p> 
<p>D2D12 Travel via fire-isolated exits [2019: D1.7]</p>	<p style="background-color: #92d050;">DTS Non-compliance:</p> <p>Building A (Fire stairways):</p> <ul style="list-style-type: none"> The fire stairs ascending from the basement discharges onto lower ground floor beneath a covered area that fails to comply with D2D12. The fire stairs descending from the storeys above discharges onto the ground floor beneath a covered area that fails to comply with D2D12. <p>Building B (Northern fire stairways):</p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto level 2 beneath a covered area that fails to comply with D2D12.

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p><u>Building B (Middle fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto the upper ground floor beneath a covered area that fails to comply with D2D12. <p><u>Building B (Southern fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto the lower ground floor beneath a covered area that fails to comply with D2D12. <p><u>Building C (Middle fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto Level 1 beneath a covered area that fails to comply with D2D12. <p><u>Building D (Fire stairways):</u></p> <ul style="list-style-type: none"> The fire stairway ascending from the basement and the fire stairway descending from the storeys above both discharge onto the upper ground floor beneath a covered area that fails to comply with D2D12. <p>Typical example of fire-isolated passageway discharging to the underside of a covered area that does not comply with D2D12 (taken from the upper ground floor of Building B - Middle fire stairways)</p>  <p><u>DTS Non-compliance:</u></p> <p>At the discharge points of the fire stairways throughout building B & C, multiple stairways discharge into a shared fire-isolated passageway. D2D12(2) requires each fire-isolated stairway to discharge directly or by way of its own fire-isolated passageway. Typical example shown below, taken from the middle stairways of building B (upper ground level).</p> <p>It is recommended that you discuss this matter further with a fire engineer to determine if the proposed design may be supported as a Performance Solution.</p>

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 <p>DTS Non-compliance: At the discharge points of the fire stairways throughout building B & C, multiple access doorways open into the required fire-isolated passageways.</p>
<p>D3D25 Swinging doors [2019: D2.20]</p>	<p>DTS Non-compliance: There are various areas where the swinging doors leading into the fire-isolated stairways encroach more than 500mm onto the required width of the stairway. Typical example shown below:</p>  <p>This non-compliance was identified in the following areas:</p> <ul style="list-style-type: none"> • Building A: Throughout both fire stairways. • Building B: Throughout the northern fire stairways. • Building C: Throughout the northern fire stairways. • Building D: Throughout both fire stairways.
<p>E1D2 Fire hydrants</p>	<p>DTS Non-compliance: Clause 6.11.2 of AS2419.1-2021 titled 'internal pump rooms' requires that the pumproom shall have a door leading directly to:</p>

BCA Clause	Deemed-to-Satisfy Provision to be addressed
<p>[2019: E1.3]</p>	<ul style="list-style-type: none"> • A road or open space; or • An airlock or smoke lobby that leads to a fire-isolated passageway or stair, leading to a road or open space. <p>The pump room provided on the lower ground level fails to comply with this clause.</p>  <p>DTS Non-compliance:</p> <p>Clause 7.3.1 of AS2419.1-2021 requires the hydrant booster to be within sight of the principal pedestrian entrance of the building. This clause is intended for buildings with a single principal pedestrian entrance. As the subject building has multiple principal pedestrian entrances, this will need to be addressed vis a Performance-Based Solution.</p>
<p>E1D4 Sprinklers [2019: E1.5]</p>	<p>Further information required:</p> <p>S17C6 details that sprinkler alarm valves must be located in a secure room or enclosure which has direct egress to a road or open space. The room/enclosure is to be detailed on the drawings.</p> <p>DTS Non-compliance:</p> <p>S17C7 details that a required sprinkler system in a building greater than 25m in effective height must be provided with a dual water supply except that a secondary water supply storage capacity of 25,000 litres may be used if the storage tank is located at the topmost storey of the building. The proposed storage tank is proposed on the ground floor.</p>
<p>E1D15 Fire control centres [2019: E1.8]</p>	<p>Further information required:</p> <p>The drawings are to detail the proposed location of the fire control room ensuring compliance with Specification 19. The following specific provisions should be considered as part of the DA drawings design:</p> <p>S19C4: A fire control centre must be so located in a building that egress from any part of its floor, to a road or open space, does not involve changes in level which in aggregate exceed 300 mm.</p> <p>S19C7(a): A fire control centre in a building more than 50 m in effective height must be in a separate room where—</p> <p>(a) the enclosing construction is of concrete, masonry or the like, sufficiently impact resistant to withstand the impact of any likely falling debris, and with an FRL of not less than 120/120/120.</p>

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<p>S19C9(2): The fire control room must be accessible via two paths of travel—</p> <ul style="list-style-type: none"> (a) one from the front entrance of the building; and (b) one direct from a public place or fire-isolated passageway which leads to a public place and has a door with an FRL of not less than –/120/30 <p>S19C10(3): A fire control room must—</p> <ul style="list-style-type: none"> (a) have a floor area of not less than 10 m² and the length of any internal side must be not less than 2.5 m; and (b) if only the minimum prescribed equipment is installed — have a net floor area of not less than 8 m² with a clear space of not less than 1.5 m² in front of the Fire Indicator Panel; and (c) if additional equipment is installed — have an additional area of not less than 2 m² net floor area for each additional facility and a clear space of not less than 1.5 m² in front of each additional control or indicator panel; and (d) be constructed such that the area required for any path of travel through the room to other areas is provided in addition to the requirements (b) and (c). <p>S19C10(1): A fire control room must be ventilated by—</p> <ul style="list-style-type: none"> (a) natural ventilation from a window or doorway in an external wall of the building which opens directly into the fire control room from a road or open space; or (b) a pressurisation system that only serves the fire control room, and— <ul style="list-style-type: none"> (i) is installed in accordance with AS 1668.1 as though the room is a fire-isolated stairway; and (ii) is activated automatically by operation of the fire alarm, or sprinkler system complying with Specification 17, installed in the building and manually by an over-riding control in the room; and (iii) provides a flow of fresh air through the room of not less than 30 air changes per hour when the system is operating and any door to the room is open; and (iv) has fans, motors and ductwork that form part of the system but not contained within the fire control room protected by enclosing construction with an FRL of not less than 120/120/120; and (v) has any electrical supply to the fire control room or equipment necessary for its operation connected to the supply side of the main disconnection switch for the building.
<p>F4D4 Facilities in Class 3 to 9 buildings [2019: F2.3]</p>	<p>Further information required:</p> <p>No sanitary facilities have been detailed for the proposed class 5 commercial units and class 6 retail units. As such, as assessment of this has not been undertaken.</p>

2.0 INTRODUCTION

This report provides a Building Code of Australia (BCA) 2022 assessment of the proposed mixed use development comprising of 4 buildings, to be located at 93-107 Cecil Avenue and 9-10 Roger Avenue, Castle Hill, for the purposes of Development Application (DA) submission.

This report provides a BCA assessment table in Section 4.0 that summarises the identified non-compliance matters and offers specific recommendations.

2.1 Basis of Report

The key basis of this report is to address compliance with the Building Code of Australia (BCA) 2022. The scope of services is limited to Sections C – “Fire Resistance”, Section D – “Access & Egress”, Section E – “Services & Equipment”, Section F “Health and Amenity” and Section G “Ancillary Provisions”.

This report is based on a desktop assessment of the proposed plans, with specific reference to the following:

- Architectural plans prepared by A Plus Design Group, Project No. A24033 Drawing Numbers:

No	Drawing Title	Drawing No.	Revision	Date
1.	Basement 2	A201	A	2024-12-04
2.	Basement 1	A202	A	2024-12-04
3.	Lower Ground	A203	A	2024-12-04
4.	Ground	A204	A	2024-12-04
5.	Upper Ground	A205	A	2024-12-04
6.	Level 1	A206	A	2024-12-04
7.	Level 2	A207	A	2024-12-04
8.	Level 3	A208	A	2024-12-04
9.	Level 4	A209	A	2024-12-04
10.	Level 5	A210	A	2024-12-04
11.	Level 6	A211	A	2024-12-04
12.	Level 7	A212	A	2024-12-04
13.	Level 8	A213	A	2024-12-04
14.	Level 9	A214	A	2024-12-04
15.	Level 10	A215	A	2024-12-04
16.	Level 11	A216	A	2024-12-04
17.	Level 12	A217	A	2024-12-04
18.	Level 13	A218	A	2024-12-04
19.	Level 14	A219	A	2024-12-04
20.	Level 15	A220	A	2024-12-04
21.	Level 16	A221	A	2024-12-04
22.	Level 17	A222	A	2024-12-04
23.	Level 18	A223	A	2024-12-04
24.	Level 19	A224	A	2024-12-04
25.	Level 20	A225	A	2024-12-04
26.	Level 21 - 25	A226	A	2024-12-04
27.	Level 26	A227	A	2024-12-04
28.	Roof	A228	A	2024-12-04



29.	North Elevation (Cecil Avenue)	A301	A	2024-12-04
30.	South Elevation	A302	A	2024-12-04
31.	East Elevation	A303	A	2024-12-04
32.	West Elevation	A304	A	2024-12-04
33.	Internal East Elevation Through Site Link	A305	A	2024-12-04
34.	Internal West Elevation Through Site Link	A305	A	2024-12-04
35.	Internal Elevation – Building A, D	A307	A	2024-12-04
36.	Section A-A	A401	A	2024-12-04
37.	Section B-B	A402	A	2024-12-04
38.	Section C-C	A403	A	2024-12-04
39.	Building A - Upper Ground	A501	A	2024-12-04
40.	Building A - Level 1	A502	A	2024-12-04
41.	Building A - Level 2	A503	A	2024-12-04
42.	Building A - Level 3	A504	A	2024-12-04
43.	Building A - Level 4	A505	A	2024-12-04
44.	Building A - Roof	A506	A	2024-12-04
45.	Building B - Lower ground	A511	A	2024-12-04
46.	Building B - Ground	A512	A	2024-12-04
47.	Building B - Upper ground	A513	A	2024-12-04
48.	Building B - Level 1	A514	A	2024-12-04
49.	Building B - Level 2	A515	A	2024-12-04
50.	Building B - Level 3	A516	A	2024-12-04
51.	Building B - Level 4	A517	A	2024-12-04
52.	Building B - Level 5	A518	A	2024-12-04
53.	Building B - Level 6	A519	A	2024-12-04
54.	Building B - Level 7	A520	A	2024-12-04
55.	Building B - Level 8	A521	A	2024-12-04
56.	Building B - Level 9	A522	A	2024-12-04
57.	Building B - Level 10	A523	A	2024-12-04
58.	Building B - Level 11	A524	A	2024-12-04
59.	Building B - Level 12	A525	A	2024-12-04
60.	Building B - Level 13	A526	A	2024-12-04
61.	Building B - Level 14	A527	A	2024-12-04
62.	Building B - Level 15	A528	A	2024-12-04
63.	Building B - Level 16	A529	A	2024-12-04
64.	Building B - Level 17	A530	A	2024-12-04
65.	Building B - Level 18	A531	A	2024-12-04
66.	Building B - Level 19	A531	A	2024-12-04
67.	Building B - Level 20	A533	A	2024-12-04
68.	Building B - Roof	A534	A	2024-12-04





69.	Building C- Lower Ground	A541	A	2024-12-04
70.	Building C- Ground Floor	A542	A	2024-12-04
71.	Building C- Upper Ground	A543	A	2024-12-04
72.	Building C - Level 1	A544	A	2024-12-04
73.	Building C - Level 2	A545	A	2024-12-04
74.	Building C - Level 3	A546	A	2024-12-04
75.	Building C - Level 4	A544	A	2024-12-04
76.	Building C - Level 5	A545	A	2024-12-04
77.	Building C - Level 6	A546	A	2024-12-04
78.	Building C - Level 7	A547	A	2024-12-04
79.	Building C - Level 8	A548	A	2024-12-04
80.	Building C - Level 9	A549	A	2024-12-04
81.	Building C - Level 10	A550	A	2024-12-04
82.	Building C - Level 11	A551	A	2024-12-04
83.	Building C - Level 12	A552	A	2024-12-04
84.	Building C - Level 13	A553	A	2024-12-04
85.	Building C - Level 14	A554	A	2024-12-04
86.	Building C - Level 15	A555	A	2024-12-04
87.	Building C - Level 16	A556	A	2024-12-04
88.	Building C - Level 17	A557	A	2024-12-04
89.	Building C - Level 18	A558	A	2024-12-04
90.	Building C - Level 19	A559	A	2024-12-04
91.	Building C - Level 20	A560	A	2024-12-04
92.	Building C - Level 21-25	A561	A	2024-12-04
93.	Building C - Level 26	A562	A	2024-12-04
94.	Building C - Roof	A563	A	2024-12-04
95.	Building D - Level 2	A571	A	2024-12-04
96.	Building D - Level 3	A572	A	2024-12-04
97.	Building D - Level 4	A573	A	2024-12-04
98.	Building D - Level 5	A574	A	2024-12-04
99.	Building D - Level 6	A575	A	2024-12-04
100.	Building D - Roof	A576	A	2024-12-04

- The Building Code of Australia 2022, prepared by the Australian Building Codes Board.
- The Guide to the BCA 2019 Amendment 1, prepared by the Australian Building Codes Board.



2.2 Purpose of the Report

The purpose of this report is to assess the following:

- Assessment under the current Building Code of Australia 2022 and list any departures from the BCA 2022.
- Provide recommendations to address identified non-compliances, and/or identify potential performance solutions.

2.3 Limitations of the Report

This report does not assess the following:

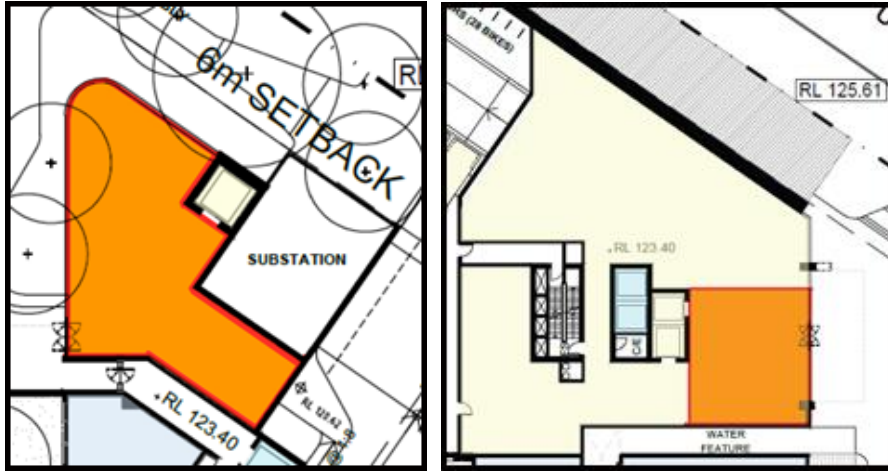
- This assessment has been undertaken for the purposes of DA submission. For DA submission a holistic assessment of the building is undertaken to ensure that the fundamental design can be developed to comply with the BCA at construction stage. This report provides high-level commentary only in relation to items that require construction level detail for compliance to be determined.
- Structural Provisions of the BCA (Section B) have not been considered. A suitably qualified Structural Engineer should be engaged to determine compliance.
- Accessibility Provisions of the BCA (BCA Part D4, BCA Clause E3D7-E3D8 (inclusive), F4D5-F4D7 (inclusive) and F4D12) have not been considered. A suitably qualified Access Consultant should be engaged to determine compliance.
- Energy Efficiency Provisions of the BCA (Section J) have not been considered. A suitably qualified Energy Consultant should be engaged to determine compliance.
- Sections H & I of the BCA have not been considered as part of this assessment.
- Reporting on hazardous materials, WHS matters, or site contamination.
- Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire-resistant levels of the building.
- Consideration of any fire services operations (including hydraulic, electrical, or other systems).
- Assessment of plumbing and drainage installations, including stormwater.
- Assessment of mechanical plant operations, electrical systems, or security systems.
- Heritage significance.
- Consideration of energy or water authority requirements.
- Consideration of Council's local planning policies.
- Environmental or planning issues.
- Requirements of statutory authorities.
- Pest inspection or assessment building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out).
- Provision of any construction approvals or certification under Part 6 of the Environmental Planning & Assessment Act 1979.
- Glazing, shading, lighting calculations and the like required by Section J of the BCA have not been carried out.
- BCA 2022 does not directly specify slip-resistance classification(s) for all *accessible paths of travel*; however, we highlight the need under AS 1428.1-2009 for all *accessible paths of travel* to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.

2.4 Assumptions made within the Report

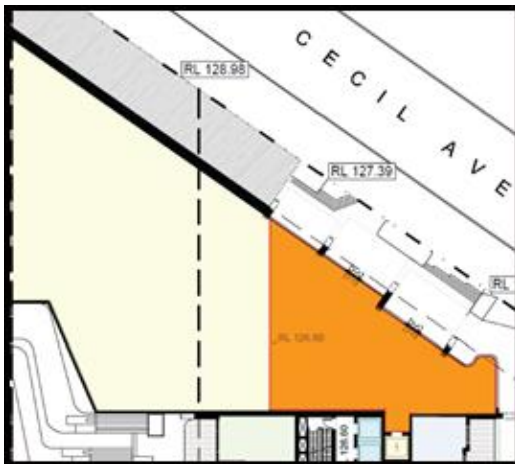
The following assumptions have been made within the report, where insufficient information is available:

- An AS2118.1 sprinkler system is proposed throughout the building.
- All units on the ground floor, upper ground floor, level 1 & level 2 highlighted as commercial/retail, have been assessed as class 5, except for the following units which have been confirmed by the client as being class 6:

Upper ground floor (Building A and Building B):



Level 1 (Building B):



Level 1 (Building C):





- All class 6 units are assumed to be restaurants/cafes for the purposes of calculating the number of persons accommodated. This is a conservative approach to ensure that the rooms meet the minimum requirements for all types of class 6 building.
- All communal open space areas are to be treated as class 2 parts of the building as they are ancillary to the residential units and not for public access.
- All walls and associated doorways reducing the lengths of the corridors to less than 40m in the class 2 parts of the building, are smoke-proof walls and doorways complying with S11C2.

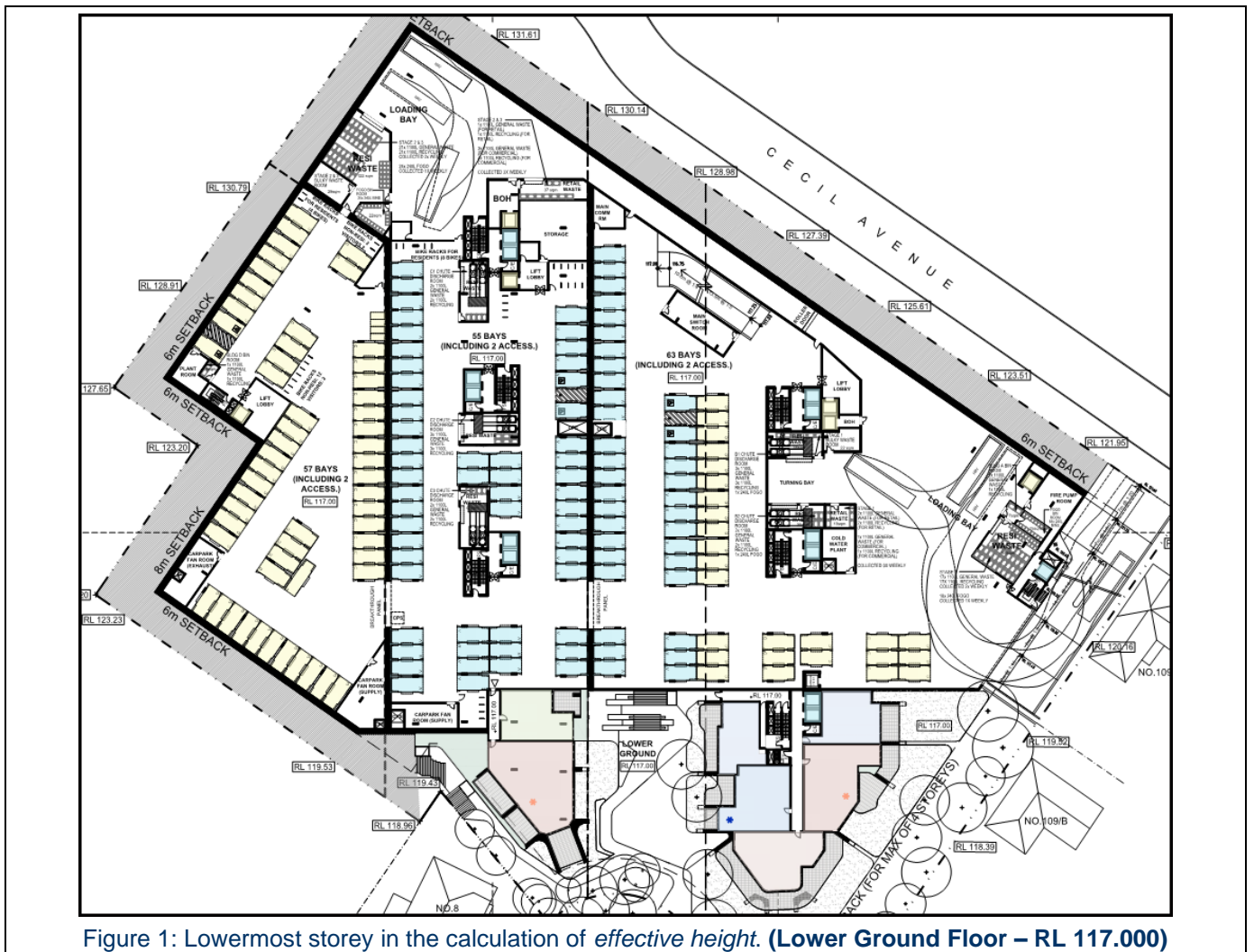


3.0 BCA ASSESSMENT DATA

The following data is provided in respect to review of the building under the Building Code of Australia 2022 in respect to the compliance assessment of the mixed use development comprising of 4 buildings, to be located at 93-107 Cecil Avenue and 9-10 Roger Avenue, Castle Hill.

BCA Building Classifications:	Class 2 – Residential Units Class 5 – Commercial Units Class 6 – Retail Units Class 7a – Carparking Class 7b – Storage & Loading Dock
Building rise in storeys:	29 (determined in accordance with C2D3 of the BCA).
Type of Construction:	Type A (determined in accordance with C2D2 of the BCA)
General floor area & volume limitations	Class 5 – Max floor area of 8,000m ² & max volume of 48,000m ³ Class 6 or 7b – Max floor area of 5,000m ² & max volume of 30,000m ³
Effective Height (m):	89.6m
Climate Zone (Thermal Design)	6 (determined in accordance with ABCB Climate Map, Sept 2019)

3.1 Assessment of Effective Height





- An automatic smoke and fire detection must be provided in accordance with BCA Part E2, BCA Specification 20, AS 1670.1-2018 and AS 3786-2014, as applicable.
- Automatic air pressurisation must be provided to fire isolated stairs serving residential & basement levels and the fire control room in accordance with BCA Part E2, BCA Specification 19 and AS 1668.1-2015.
- A zone smoke control system must be provided between vertically separated fire compartments in accordance with BCA Part E2 and 1668.1-2015.
- Mechanical ventilation must be provided to the basement carpark in accordance with BCA Clause E2D3 AS 1668.1-2015 and AS 1668.2-2012, incorporating metal fans.
- Emergency lighting must be provided throughout the building in accordance with BCA Clause E4D2, E4D4 and AS 2293.1-2018.
- Exit signage must be provided throughout the building in accordance with BCA Clause E4D5, NSW E4D6, E4D8 and AS 2293.1-2018.
- An emergency warning and intercom system (EWIS) must be provided in accordance with BCA Clause E4D9, and AS 1670.4-2018.
- Signage must be provided to exits in accordance with BCA Clause D3D28 and Section 108 of the Environmental Planning & Assessment (Development Certification and Fire Safety) Regulation 2021.
- Emergency lifts must be provided in accordance with BCA Part E3, BCA Clause E3D5 and C3D11.
- Service penetrations through building elements required to be fire-resisting must be provided with fire sealing in accordance with BCA Clause C4D15, Specification 13 and AS 1540.4-2014.
- Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in accordance with BCA Clause C4D16.
- Re-entry from fire-isolated exits must be provided in accordance with BCA Clause D3D27.
- In accordance with BCA Clause E2D3, an air-handling system which does not form part of a smoke hazard management system in accordance with clause E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment, subject to E2D3(2), must be designed and installed—
 - to operate as a smoke control system in accordance with AS 1668.1; or
 - incorporate smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served and is arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1.
- Fire doors must be provided in accordance with BCA Sections C & D as applicable, BCA Specification 12 and AS 1905.1-2015.
- Openings into shafts must be provided with protection in accordance with BCA Clause C4D14.
- Fire dampers must be provided in accordance with BCA Clause C4D15, AS 1668.1-2015, AS 1682.1-2015 and AS 1682.2-2015.
- Fire shutters must be provided in accordance with BCA Specification 12, AS 1905.2-2005 and a tested prototype, as applicable.
- Fire windows must be provided in accordance with BCA Specification 12 and a tested prototype, as applicable.
- Smoke walls must be provided in accordance with BCA Clause C3D15 and BCA Specification 11.
- Smoke doors must be provided in accordance with BCA Specification 11 and Specification 12.
- Smoke dampers must be provided in accordance with BCA Clauses C3D15, E2D3 and BCA Specification 11.
- Fire-rated lift landing doors must be provided in accordance with BCA Clause C4D11 and AS 1735.11-1986.



4.0 BCA ASSESSMENT SUMMARY

The following table details the BCA compliance of the assessed design.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS															
Section B Structure																				
Part B1 Structural provisions																				
B1D1 Deemed-to-Satisfy Provisions [2019: B1.0]				X	<p>(1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements B1P1 to B1P4 are satisfied by complying with B1D2 to B1D6.</p> <p>(2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.</p> <p>Structural plans and specifications demonstrating compliance with Section B must be developed by a suitably qualified structural engineer at construction stage.</p>															
Section C Fire resistance																				
Part C2 Fire resistance and stability																				
C2D2 Type of construction required [2019: C1.1]				X	<p>Compliance commentary: Type A construction required.</p>															
				X	<p>BCA Requirements: (1) The minimum Type of fire-resisting construction of a building must be determined in accordance with Table C2D2. (2) Each building element must comply with Specification 5 as applicable. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>															
<table border="1"> <thead> <tr> <th>Rise in storeys</th> <th>Class of building 2</th> <th>Class of building 5, 6 or 7</th> </tr> </thead> <tbody> <tr> <td>4 of more</td> <td>A</td> <td>A</td> </tr> <tr> <td>3</td> <td>A</td> <td>B</td> </tr> <tr> <td>2</td> <td>B</td> <td>C</td> </tr> <tr> <td>1</td> <td>C</td> <td>C</td> </tr> </tbody> </table>						Rise in storeys	Class of building 2	Class of building 5, 6 or 7	4 of more	A	A	3	A	B	2	B	C	1	C	C
Rise in storeys	Class of building 2	Class of building 5, 6 or 7																		
4 of more	A	A																		
3	A	B																		
2	B	C																		
1	C	C																		
C2D3 Calculation of rise in storeys [2019: C1.2]			X		<p>(1) The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space—</p> <p>(a) above the finished ground next to that part; or (b) if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary.</p> <p>(2) A storey is not counted if—</p> <p>(a) it is situated at the top of the building and contains only heating, ventilating or lift equipment, water tanks, or similar service units or equipment; or (b) it is situated partly below the finished ground and the underside of the ceiling is not more than 1 m above the average finished level of the ground at the external wall, or if the external wall is more than 12 m long, the average for the 12 m part where the ground is lowest.</p>															



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
C2D4 Buildings of multiple classification [2019: C1.3]			X		Not applicable.
C2D5 Mixed types of construction [2019: C1.4]			X		Not applicable.
C2D6 Two storey Class 2, 3 or 9c buildings [2019: C1.5]			X		Not applicable.
C2D7 Class 4 parts of buildings [2019: C1.6]			X		Not applicable.
C2D8 Open spectator stands and indoor sports stadiums [2019: C1.7]			X		Not applicable.
C2D9 Lightweight construction [2019: C1.8]				X	<p>(1) Lightweight construction must comply with Specification 6 if it is used in a wall system—</p> <ul style="list-style-type: none"> (a) that is required to have an FRL; or (b) for a lift shaft, stair shaft or service shaft or an external wall bounding a public corridor including a non-fire-isolated passageway or non-fire-isolated ramp, in a spectator stand, sports stadium, cinema or theatre, railway station, bus station or airport terminal. <p>(2) If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if—</p> <ul style="list-style-type: none"> (a) the covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2 m above the floor to prevent indenting; and (b) the column is liable to be damaged from the movement of vehicles, materials, or equipment, then the covering must be protected by steel or other suitable material. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Lightweight construction:</i> Construction which incorporates or comprises—</p> <ul style="list-style-type: none"> (a) sheet or board material, plaster, render, sprayed application, or other material similarly susceptible to damage by impact, pressure or abrasion; or (b) concrete and concrete products containing pumice, perlite, vermiculite, or other soft material similarly susceptible to damage by impact, pressure or abrasion; or (c) masonry having a width of less than 70 mm </div> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
C2D10 Non-combustible building elements [2019: C1.9]				X	<p>(1) In a building required to be of Type A construction, the following building elements and their components must be non-combustible:</p> <ul style="list-style-type: none"> (a) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation. (b) The flooring and floor framing of lift pits. (c) Non-loadbearing internal walls where they are required to be fire-resisting. <p>(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—</p> <ul style="list-style-type: none"> (a) a building required to be of Type A construction. <p>(3) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shafts, must comply with Specification 5.</p> <p>(4) The requirements of (1) and (2) do not apply to the following:</p> <ul style="list-style-type: none"> (a) Gaskets. (b) Caulking. (c) Sealants. (d) Termite management systems. (e) Glass, including laminated glass, and associated adhesives, including tapes. (f) Thermal breaks associated with— <ul style="list-style-type: none"> (i) glazing systems; or (ii) external wall systems, where the thermal breaks— <ul style="list-style-type: none"> (A) are no larger than necessary to achieve thermal objectives; and (B) do not extend beyond one storey; and (C) do not extend beyond one fire compartment. (g) Damp-proof courses. (h) Compressible fillers and backing materials, including those associated with articulation joints, closing gaps not wider than 50 mm. (i) Isolated— <ul style="list-style-type: none"> (i) construction packers and shims; or (ii) blocking for fixing fixtures; or (iii) fixings, including fixing accessories; or (iv) acoustic mounts. (j) Waterproofing materials applied to the external face, used below ground level and up to 250 mm above ground level. (k) Joint trims and joint reinforcing tape and mesh of a width not greater than 50 mm. (l) Weather sealing materials, applied to gaps not wider than 50mm, used within and between concrete elements. (m) Wall ties and other masonry components complying with AS 2699 Part 1 and Part 3 as appropriate, and associated with masonry wall construction. (n) Reinforcing bars and associated minor elements that are wholly or predominately encased in concrete or grout. (o) A paint, lacquer or a similar finish or coating.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(p) Adhesives, including tapes, associated with stiffeners for cladding systems.</p> <p>(q) Fire-protective materials and components required for the protection of penetrations.</p> <p>(5) The following materials, when entirely composed of itself, are non-combustible and may be used wherever a non-combustible material is required:</p> <ul style="list-style-type: none"> (a) Concrete. (b) Steel, including metallic coated steel. (c) Masonry, including mortar. (d) Aluminium, including aluminium alloy. (e) Autoclaved aerated concrete, including mortar. (f) Iron. (g) Terracotta. (h) Porcelain. (i) Ceramic. (j) Natural stone. (k) Copper. (l) Zinc. (m) Lead. (n) Bronze. (o) Brass. <p>(6) The following materials may be used wherever a non-combustible material is required:</p> <ul style="list-style-type: none"> (a) Plasterboard. (b) Perforated gypsum lath with a normal paper finish. (c) Fibrous-plaster sheet. (d) Fibre-reinforced cement sheeting. (e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0. (f) Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than 5. (g) Bonded laminated materials where— <ul style="list-style-type: none"> (i) each lamina, including any core, is non-combustible; and (ii) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and (iii) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively; and (iv) when located externally, are fixed in accordance with C2D15. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
NSW C2D11 Fire hazard properties				X	The fire hazard properties of the internal linings, materials and assemblies within the building must comply with Specification 7, except where concession is provided under this clause.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
[2019: C1.10 and NSW C1.10]					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C2D12 Performance of external walls in fire [2019: C1.11]			X		Not applicable.
C2D13 Fire-protected timber: Concession [2019: C1.13]			X		Not applicable.
C2D14 Ancillary elements [2019: C1.14]				X	<p>An ancillary element must not be fixed, installed, attached to or supported by the concealed internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following:</p> <ul style="list-style-type: none"> (a) An ancillary element that is non-combustible. (b) A gutter, downpipe or other plumbing fixture or fitting. (c) A flashing. A grate, grille or similar cover not more than 2 m² (d) in area associated with a building service. (e) An electrical switch, socket-outlet, cover plate or the like. (f) A light fitting. (g) A required sign. (h) A sign other than one provided under (a) or (g) that— <ul style="list-style-type: none"> (i) achieves a group number of 1 or 2; and (ii) does not extend beyond one storey; and (iii) does not extend beyond one fire compartment; and (iv) is separated vertically from other signs permitted under (h) by at least 2 storeys. (i) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that— <ul style="list-style-type: none"> (i) meets the relevant requirements of Table S7C7 as for an internal element; and (ii) serves a storey— <ul style="list-style-type: none"> (A) at ground level; or (B) immediately above a storey at ground level; and (iii) does not serve an exit, where it would render the exit unusable in a fire. (j) A part of a security, intercom or announcement system. (k) Wiring. (l) Waterproofing material installed in accordance with AS 4654.2 and applied to an adjacent floor surface, including vertical upturn, or a roof surface. (m) Collars, sleeves and insulation associated with service installations. (n) Screens applied to vents, weepholes and gaps complying with AS 3959.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS								
					<p>(o) Wiper and brush seals associated with doors, windows or other openings.</p> <p>(p) A gasket, caulking, sealant or adhesive directly associated with (a) to (o).</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>								
C2D15 Fixing of bonded laminated cladding panels [New for 2022]				X	<p>(1) In a building required to be of Type A construction, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame.</p> <p>(2) An externally located bonded laminated cladding panel need not comply with (1) if it is one of the following:</p> <p>(a) A laminated glass system.</p> <p>(b) Layered plasterboard product.</p> <p>(c) Perforated gypsum lath with a normal paper finish.</p> <p>(d) Fibrous-plaster sheet.</p> <p>(e) Fibre-reinforced cement sheeting. A component of a garage door.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>								
Part C3 Compartmentation and separation													
C3D2 Application of Part [2019: C2.1]			X		<p>Compliance commentary:</p> <p>An AS2118.1 sprinkler system is proposed throughout the building. As such, C3D3 does not apply to the carparking areas and there are no floor area and volume limitations to these areas.</p> <p>BCA Requirements:</p> <p>(1) C3D3 does not apply to a carpark provided with a sprinkler system complying with Specification 17.</p>								
C3D3 General floor area and volume limitations [2019: C2.2]				X	<p>(1) The size of any fire compartment in a Class 5, 6 or 7 building must not exceed the relevant maximum floor area nor the relevant maximum volume set out in Table C3D3.</p> <p>(2) A part of a building which contains only heating, ventilating, or lift equipment, water tanks, or similar service units is not counted in the floor area or volume of a fire compartment or atrium if it is situated at the top of the building.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>								
<table border="1"> <thead> <tr> <th>Classification</th> <th>Type A construction</th> </tr> </thead> <tbody> <tr> <td rowspan="2">5</td> <td>Max floor area—8 000m²</td> </tr> <tr> <td>Max volume—48 000m³</td> </tr> <tr> <td rowspan="2">6 or 7b</td> <td>Max floor area—5 000m²</td> </tr> <tr> <td>Max volume—30 000m³</td> </tr> </tbody> </table>						Classification	Type A construction	5	Max floor area—8 000m ²	Max volume—48 000m ³	6 or 7b	Max floor area—5 000m ²	Max volume—30 000m ³
Classification	Type A construction												
5	Max floor area—8 000m ²												
	Max volume—48 000m ³												
6 or 7b	Max floor area—5 000m ²												
	Max volume—30 000m ³												
C3D4 Large isolated buildings [2019 C2.3]			X		Not applicable.								





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
C3D5 Requirements for open spaces and vehicular access [2019: C2.4]			X		Not applicable.
C3D6 Class 9 buildings [2019: C2.5]			X		Not applicable.
C3D7 Vertical separation of openings in external walls [2019: C2.6]			X		C3D7 does not apply to this building as it has been provided with an AS2118.1 sprinkler system throughout.
C3D8 Separation by fire walls [2019: C2.7]				X	<p>(1) Construction — A fire wall must be constructed in accordance with the following:</p> <ul style="list-style-type: none"> (a) The fire wall has the relevant FRL prescribed by Specification 5 for each of the adjoining parts, and if these are different, the greater FRL, except where S5C19(3)(c)(i), S5C22(3)(c)(i) and S5C25(3)(c)(i) permit a lower FRL on the carpark side. (b) Any openings in a fire wall must not reduce the FRL required by Specification 5 for the fire wall, except where permitted by the Deemed-to-Satisfy Provisions of Part C4. (c) Building elements, other than roof battens with dimensions of 75 mm x 50 mm or less or sarking- type material, must not pass through or cross the fire wall unless the required fire-resisting performance of the fire wall is maintained. <p>(2) Separation of buildings — A part of a building separated from the remainder of the building by a fire wall may be treated as a separate building for the purposes of the Deemed-to-Satisfy Provisions of Sections C, D and E if it is constructed in accordance with (1) and the following:</p> <ul style="list-style-type: none"> (a) The fire wall extends through all storeys and spaces in the nature of storeys that are common to that part and any adjoining part of the building. (b) The fire wall is carried through to the underside of the roof covering. (c) Where the roof of one of the adjoining parts is lower than the roof of the other part, the fire wall extends to the underside of— <ul style="list-style-type: none"> (i) the covering of the higher roof, or not less than 6 m above the covering of the lower roof; or (ii) the lower roof if it has an FRL not less than that of the fire wall and no openings closer than 3m to any wall above the lower roof; or (iii) the lower roof if its covering is non-combustible and the lower part has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. <p>(3) Separation of fire compartments — A part of a building separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with (1) and the fire wall extends to the underside of—</p> <ul style="list-style-type: none"> (a) a floor having an FRL required for a fire wall; or





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(b) the roof covering. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3D9 Separation of classifications in the same storey [2019: C2.8]				X	(1) If a building has parts of different classifications located alongside one another in the same storey— (a) each building element in that storey must have the higher FRL prescribed in Specification 5 for that element for the classifications concerned; or (b) the parts must be separated in that storey by a fire wall. (2) A fire wall required by (1)(b) must have the FRL prescribed in accordance with Specification 5 as applicable for that element for the Type of construction and the classifications concerned. (3) For the purposes of (2), the FRL in Specification 5 must be the higher FRL prescribed in Tables S5C11d. (4) For the purposes of (1), where one part is a carpark complying with S5C19, the parts may be separated by a fire wall complying with the appropriate Clause. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3D10 Separation of classifications in different storeys [2019: C2.9]				X	If parts of different classification are situated one above the other in adjoining storeys, they must be separated as follows: (a) Type A construction — The floor between the adjoining parts must have an FRL of not less than that prescribed in Specification 5 for the classification of the lower storey. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3D11 Separation of lift shafts [2019: C2.10]				X	(1) Any lift connecting more than 3 storeys if the building is sprinklered, must be separated from the remainder of the building by enclosure in a shaft in which— (a) in a building required to be of Type A construction — the walls have the relevant FRL prescribed by Specification 5; and (2) An emergency lift must be contained within a fire-resisting shaft having an FRL of not less than 120/120/120. (3) Openings for lift landing doors and services must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C4. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3D12 Stairways and lifts in one shaft [2019: C2.11]				X	A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3D13 Separation of equipment [2019: C2.12]				X	(1) Equipment other than that described in (2) and (3) must be separated from the remainder of the building with construction complying with (4), if that equipment comprises— (a) lift motors and lift control panels; or (b) emergency generators used to sustain emergency equipment operating in the emergency mode; or (c) central smoke control plant; or (d) boilers; or





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(e) a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more.</p> <p>(2) Equipment need not be separated in accordance with (1) if the equipment comprises—</p> <p>(a) smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification 21; or</p> <p>(b) stair pressurising equipment installed in compliance with the relevant provisions of AS 1668.1; or</p> <p>(c) a lift installation without a machine-room; or</p> <p>(d) equipment otherwise adequately separated from the remainder of the building.</p> <p>(3) Separation of on-site fire pumps must comply with the requirements of AS 2419.1.</p> <p>(4) Separating construction must have—</p> <p>(a) except as provided by (b)—</p> <p>(i) an FRL as required by Specification 5, but not less than 120/120/120; and</p> <p>(ii) any doorway protected with a self-closing fire door having an FRL of not less than –/120/30; or</p> <p>(b) when separating a lift shaft and lift motor room, an FRL not less than 120/–/–.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>C3D14 Electricity supply system [2019: C2.13]</p>				<p>X</p>	<p>(1) An electricity substation located within a building must—</p> <p>(a) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and</p> <p>(b) have any doorway in that construction protected with a self-closing fire door having an FRL of not less than – /120/30.</p> <p>(2) A main switchboard located within the building which sustains emergency equipment operating in the emergency mode must—</p> <p>(a) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and</p> <p>(b) have any doorway in that construction protected with a self-closing fire door having an FRL of not less than – /120/30.</p> <p>(3) Subject to (4), electrical conductors must—</p> <p>(a) have a classification in accordance with AS/NZS 3013 of not less than—</p> <p>(i) if located in a position that could be subject to damage by motor vehicles — WS53W; or</p> <p>(ii) otherwise — WS52W; or</p> <p>(b) be enclosed or otherwise protected by construction having an FRL of not less than 120/120/120.</p> <p>(4) The requirements of (3) only apply to electrical conductors located within a building that supply—</p> <p>(a) a substation located within the building which supplies a main switchboard covered by (2); or</p> <p>(b) a main switchboard covered by (2).</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
[2019: C3.1]					<p>(a) Control joints, weep holes and the like in external walls of masonry construction and joints between panels in external walls of pre-cast concrete panel construction if, in all cases they are not larger than necessary for the purpose.</p> <p>(b) Non-combustible ventilators for subfloor or cavity ventilation, if each does not exceed 45 000 mm² in face area and is spaced not less than 2 m from any other ventilator in the same wall.</p> <p>(c) Openings in the vertical plane formed between building elements at the construction edge or perimeter of a balcony or verandah, colonnade, terrace, or the like.</p> <p>(d) In a carpark floor other than a floor that separates a part not used as a carpark, and subject to the following openings in a carpark floor:</p> <ul style="list-style-type: none"> (i) Service penetrations. (ii) Openings formed by a vehicle ramp. <p>(e) The requirements of (d) only apply where the connected carpark levels comply as a single fire compartment for the purposes of all other requirements of the Deemed-to-Satisfy Provisions of Sections C, D and E.</p> <p>(2) For the purposes of the Deemed-to-Satisfy Provisions of this Part, openings in building elements required to be fire-resisting include doorways, windows (including any associated fanlight), infill panels and fixed or openable glazed areas that do not have the required FRL.</p> <p>(3) For the purposes of the Deemed-to-Satisfy Provisions of this Part, openings, other than those covered under (1)(c), between building elements such as columns, beams and the like, in the plane formed at the construction edge or perimeter of the building, are deemed to be openings in an external wall.</p>
C4D3 Protection of openings in external walls [2019: C3.2]			X		<p>Compliance commentary:</p> <p>Not applicable as there are no openings in external walls required by this clause to be protected.</p> <p>BCA Requirements:</p> <p>(1) Subject to (2), openings in an external wall that is required to have an FRL must be protected in accordance with C4D5, and if wall-wetting sprinklers are used they must be located externally.</p> <p>(2) The requirements of (1) only apply if the distance between the opening and the fire-source feature to which it is exposed is less than—</p> <ul style="list-style-type: none"> (a) 3 m from a side or rear boundary of the allotment; or (b) 6 m from the far boundary of a road, river, lake or the like adjoining the allotment, if not located in a storey at or near ground level; or (c) 6 m from another building on the allotment that is not Class 10. <p>(3) Openings in an external wall that is required to have an FRL, if required to be protected under (1), must not occupy more than 1/3 of the area of the external wall of the storey in which it is located unless they are in a Class 9b building used as an open spectator stand.</p>
C4D4 Separation of external walls and associated				X	<p>The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must not be less than that set out in Table C4D4, unless—</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
openings in different fire compartments [2019: C3.3]					<p>(a) those parts of each wall have an FRL not less than 60/60/60; and</p> <p>(b) any openings protected in accordance with C4D5.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
C4D5 Acceptable methods of protection [2019: C3.4]			X		<p>(1) Where protection is required, doorways, windows and other openings must be protected as follows:</p> <p>(a) Doorways—</p> <p>(i) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or</p> <p>(ii) –/60/30 fire doors that are self-closing or automatic closing.</p> <p>(b) Windows—</p> <p>(i) internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or</p> <p>(ii) –/60/– fire windows that are automatic closing or permanently fixed in the closed position; or</p> <p>(iii) –/60/– automatic closing fire shutters.</p> <p>(c) Other openings—</p> <p>(i) excluding voids — internal or external wall-wetting sprinklers, as appropriate; or</p> <p>(ii) construction having an FRL not less than –/60/–.</p> <p>(2) Fire doors, fire windows and fire shutters must comply with Specification 12.</p>
C4D6 Doorways in fire walls [2019: C3.5]				X	<p>(1) The aggregate width of openings for doorways in a fire wall, which are not part of a horizontal exit, must not exceed ½ of the length of the fire wall, and each doorway must be protected by—</p> <p>(a) 2 fire doors or fire shutters, one on each side of the doorway, each of which has an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door or shutter Must have an insulation level of at least 30; or</p> <p>(b) a fire door on one side and a fire shutter on the other side of the doorway, each of which complies with (a); or</p> <p>(c) a single fire door or fire shutter which has an FRL of not less than that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30.</p> <p>(2) A fire door or fire shutter required by (1)(a), (b) or (c) must be self-closing, or automatic closing in accordance with (3) and (4).</p> <p>(3) The automatic closing operation required by (2) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located on each side of the fire wall not more than 1.5 m horizontal distance from the opening.</p> <p>(4) Where any other required suitable fire alarm system, including a sprinkler system complying with Specification 17, is installed in the building, activation of the system in either fire compartment separated by the fire wall must also initiate the automatic closing operation.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C4D7 Sliding fire doors [2019: C3.6]				X	<p>(1) If a doorway in a fire wall is fitted with a sliding fire door which is open when the building is in use—</p> <p>(a) it must be held open with an electromagnetic device, which when de-activated in accordance with (2) and (3), allows the door to be fully closed in not less than 20 seconds and not more than 30 seconds after release; and</p> <p>(b) in the event of power failure to the door — the door must fail safe in the closed position in accordance with (a); and</p> <p>(c) an audible warning device must be located near the doorway and a red flashing warning light of adequate intensity on each side of the doorway must be activated in accordance with (2) and (3); and</p> <p>(d) signs must be installed on each side of the doorway located directly over the opening stating, in capital letters not less than 50 mm high in a colour contrasting with the background:</p> <p style="text-align: center;">WARNING — SLIDING FIRE DOOR</p> <p>(2) The electromagnetic device required by (1)(a) must be de-activated and the warning system activated by heat or smoke detectors, as appropriate, installed in accordance with AS 1905.1 and the relevant provisions of AS 1670.1.</p> <p>(3) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation in either fire compartment separated by the fire wall must also de-activate the electromagnetic device and activate the warning system.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D8 Protection of doorways in horizontal exits [2019: C3.7]				X	<p>(1) A doorway that is part of a horizontal exit must be protected by either—</p> <p>(a) a single fire door that has an FRL of not less than that required by Specification 5 for the fire wall except that the door must have an insulation level of at least 30; or</p> <p>(b) in a Class 7 or 8 building — 2 fire doors, one on each side of the doorway, each with an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door must have an insulation level of at least 30.</p> <p>(2) Each door required by (1) must be self-closing, or automatic-closing in accordance with the following:</p> <p>(a) The automatic-closing operation must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located on each side of the fire wall not more than 1.5 m horizontal distance from the opening.</p> <p>(b) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system in either fire compartment separated by the fire wall must also initiate the automatic-closing operation.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C4D9 Openings in fire-isolated exits [2019: C3.8]				X	(1) Doorways that open to fire-isolated stairways, fire-isolated passageways or fire-isolated ramps, and are not doorways opening to a road or open space, must be protected by –/60/30 fire doors that are self-closing, or automatic closing in accordance with (2) and (3). (2) The automatic-closing operation required by (1) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway. (3) Where any other required suitable fire alarm system, including a sprinkler system complying with Specification 17, is installed in the building, activation of the system must also initiate the automatic-closing operation. (4) A window in an external wall of a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp must be protected in accordance with C4D5 if it is within 6 m of, and exposed to, a window or other opening in a wall of the same building, other than in the same fire-isolated enclosure. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C4D10 Service penetrations in fire-isolated exits [2019: C3.9]				X	Fire-isolated exits must not be penetrated by any services other than— (a) electrical wiring permitted by D3D8(6) to be installed within the exit; or (b) ducting associated with a pressurisation system if it— (i) is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and (ii) does not open into any other part of the building; or (c) for fire services, water supply and test drain pipes. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C4D11 Openings in fire-isolated lift shafts [2019: C3.10]				X	(1) Doorways — If a lift shaft is required to be fire-isolated, an entrance doorway to that shaft must be protected by – /60/– fire doors that— (a) comply with AS 1735.11; and (b) are set to remain closed except when discharging or receiving passengers, goods or vehicles. (2) Lift indicator panels — A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than –/60/60 if it exceeds 35 000 mm ² in area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
NSW C4D12 Bounding construction: Class 2 and 3 buildings and Class 4 parts [2019: C3.11]				X	(1) A doorway in a Class 2 building must be protected if it provides access from a sole-occupancy unit to— (a) a public corridor, public lobby, or the like; or (b) a room not within a sole-occupancy unit; or (c) the landing of an internal non fire-isolated stairway that serves as a required exit; or (d) another sole-occupancy unit.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(2) A doorway in a Class 2 building must be protected if it provides access from a room not within a sole-occupancy unit to—</p> <ul style="list-style-type: none"> (a) a public corridor, public lobby, or the like; or (b) the landing of an internal non fire-isolated stairway that serves as a required exit. <p>(3) Protection for a doorway required under (1) or (2) must be at least—</p> <ul style="list-style-type: none"> (a) in a building of Type A construction — a self-closing –/60/30 fire door; and <p>(4) Other openings in internal walls which are required to have an FRL with respect to integrity and insulation must not reduce the fire-resisting performance of the wall.</p> <p>(5) A door required by (3) may be automatic-closing in accordance with the following:</p> <ul style="list-style-type: none"> (a) The automatic-closing operation must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway. (b) Where any other required suitable fire alarm system, including a sprinkler system complying with Specification 17, is installed in the building, activation of the system must also initiate the automatic- closing operation. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>C4D13 Openings in floors and ceilings for services [2019: C3.12]</p>				X	<p>(1) Where a service passes through—</p> <ul style="list-style-type: none"> (a) a floor that is required to have an FRL with respect to integrity and insulation; or (b) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (2). <p>(2) A service must be protected—</p> <ul style="list-style-type: none"> (a) in a building of Type A construction, by a shaft complying with Specification 5; or (b) in accordance with C4D15. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>C4D14 Openings in shafts [2019: C3.13]</p>				X	<p>In a building of Type A construction, an opening in a wall providing access to a ventilating, pipe, garbage or other service shaft must be protected by—</p> <ul style="list-style-type: none"> (a) if it is in a sanitary compartment — a door or panel which, together with its frame, is non-combustible or has an FRL of not less than –/30/30; or (b) a self-closing –/60/30 fire door or hopper; or (c) an access panel having an FRL of not less than –/60/30; or (d) if the shaft is a garbage shaft — a door or hopper of non-combustible construction. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>C4D15</p>				X	<p>(1) The requirements of (2) apply where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an external wall or roof) that is required to</p>





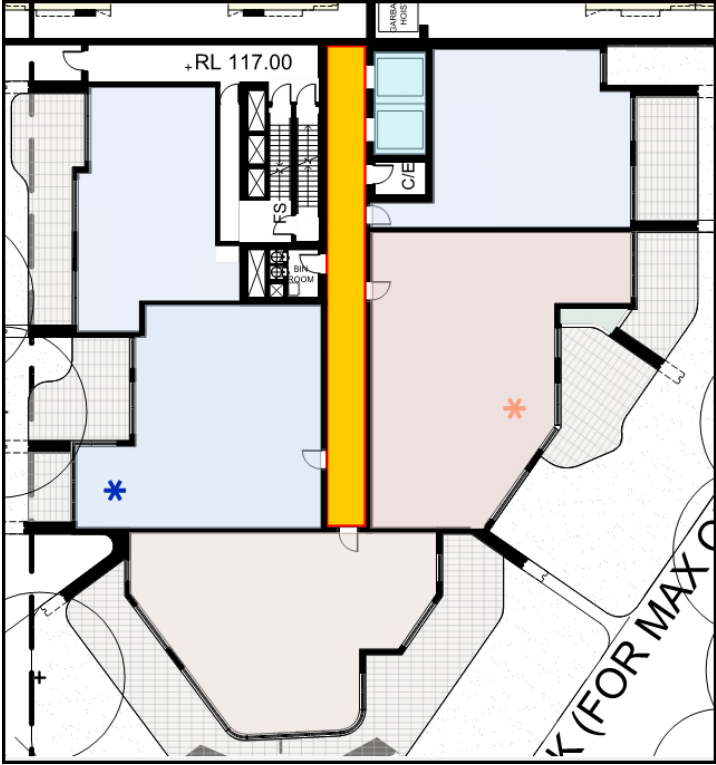
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
Openings for service installations [2019: C3.15]					<p>have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire.</p> <p>(2) An installation mentioned in (1) must comply with any one of the following:</p> <p>(a) Tested systems — the following applies:</p> <p>(i) The service, building element and any protection method at the penetration—</p> <p>(A) are identical with a prototype assembly of the service, building element and protection method which has been tested in accordance with AS 4072.1 and AS 1530.4 and has achieved the required FRL or resistance to the incipient spread of fire; or</p> <p>(B) differ from a prototype assembly of the service, building element and protection method in accordance with Section 4 of AS 4072.1.</p> <p>(ii) It complies with (i) except for the insulation criteria relating to the service if—</p> <p>(A) the service is a pipe system comprised entirely of metal (excluding pipe seals or the like); and</p> <p>(B) any combustible building element is not located within 100mm of the service for a distance of 2 m from the penetration; and</p> <p>(C) combustible material is not able to be located within 100 mm of the service for a distance of 2m from the penetration; and</p> <p>(D) it is not located in a required exit.</p> <p>(iii) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2.</p> <p>(b) Ventilation and air-conditioning — in the case of ventilating or air-conditioning ducts or equipment, the installation is in accordance with AS 1668.1.</p> <p>(c) Compliance with Specification 13 — the following applies:</p> <p>(i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification 13 and it—</p> <p>(A) penetrates a wall, floor or ceiling, but not a ceiling required to have a resistance to the incipient spread of fire; and</p> <p>(B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts; and</p> <p>(C) does not contain a flammable or combustible liquid or gas.</p> <p>(ii) The service is sanitary plumbing installed in accordance with Specification 13 and it—</p> <p>(A) is of metal or UPVC pipe; and</p> <p>(B) penetrates the floors of a Class 5, 6, 7, 8 or 9b building; and</p> <p>(C) is in a sanitary compartment separated from other parts of the building by walls with the FRL</p>

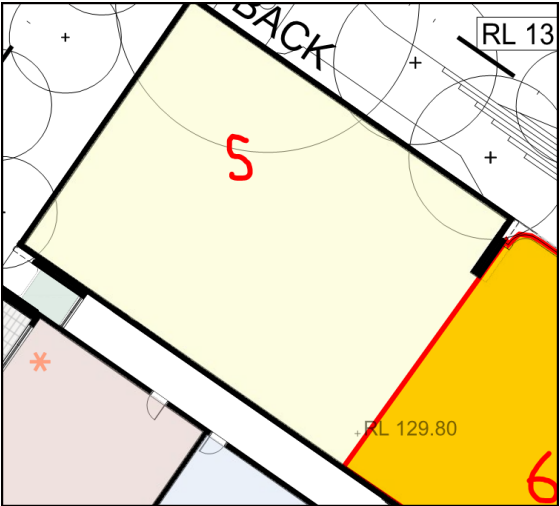
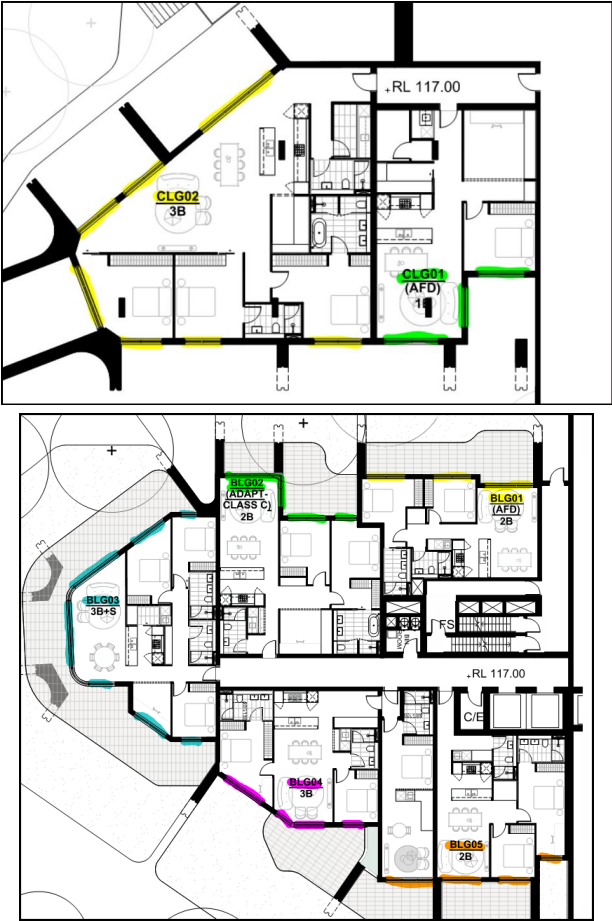




BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>required by Specification 5 for a stair shaft in the building and a self-closing –/60/30 fire door.</p> <p>(iii) The service is a wire or cable, or a cluster of wires or cables installed in accordance with Specification 13 and it—</p> <p>(A) penetrates a wall, floor or ceiling, but not a ceiling required to have a resistance to the incipient spread of fire; and</p> <p>(B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts.</p> <p>(iv) The service is an electrical switch, outlet, or the like, and it is installed in accordance with Specification 13.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D16 Construction joints [2019: C3.16]				X	<p>(1) Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner—</p> <p>(a) identical with a prototype tested in accordance with AS 4072.1 and AS 1530.4 to achieve the required FRL; or</p> <p>(b) that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL.</p> <p>(2) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D17 Columns protected with lightweight construction to achieve an FRL [2019: C3.17]				X	<p>A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Section D Access and Egress					
Part D2 Provision for escape					
D2D2 Application of Part [2019: D1.1]			X		The Deemed-to-Satisfy Provisions of this Part do not apply to the internal parts of a sole-occupancy unit in a Class 2 building.
NSW D2D3 Number of exits required [2019: D1.2]		X			<p><u>DTS Non-compliance:</u></p> <p>As the building has an effective height of more than 25m, it is required to be provided with a minimum of 2 exits on each storey in each building (except where exempted under D2D3(2)(b)). Buildings A & D only have access to 1 exit on each storey, being the fire isolated stairway, and therefore fail to comply with this clause.</p> <p><u>Building A:</u></p> <p>It may be possible for this DTS non-compliance to be addressed via a Performance-Based Solution for as the effective height of this building</p>



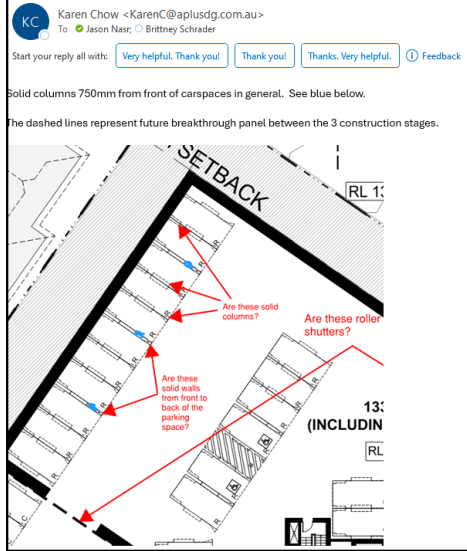
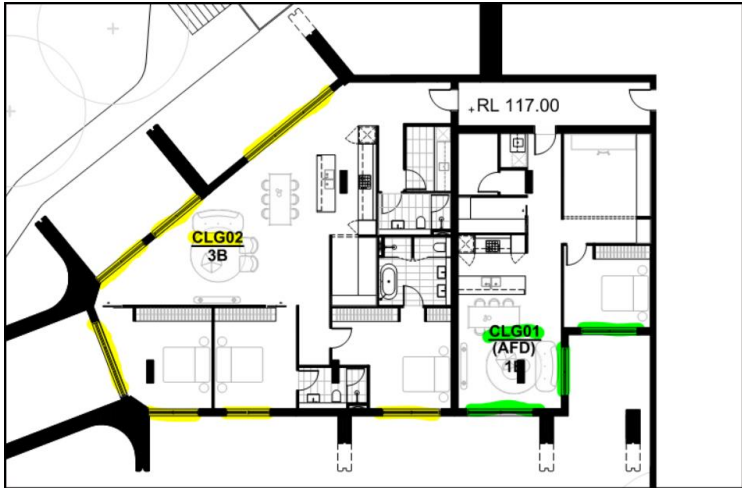
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(calculated in isolation) is 22.4m. This will need to be discussed further with AED's Fire Engineers.</p> <p>Building D: Following a review of the revised drawings, the effective height of this building (calculated in isolation) is 25.6m. This provision of a single exit in this building cannot be supported via a Performance-Based Solution and consequently, this building requires a design change (i.e. reduction in the buildings effective height to less than 25m or provision of 2 exits on each storey).</p> <p>DTS Non-compliance: The corridor on the lower ground level of building B has not been provided with an exit/s.</p> 


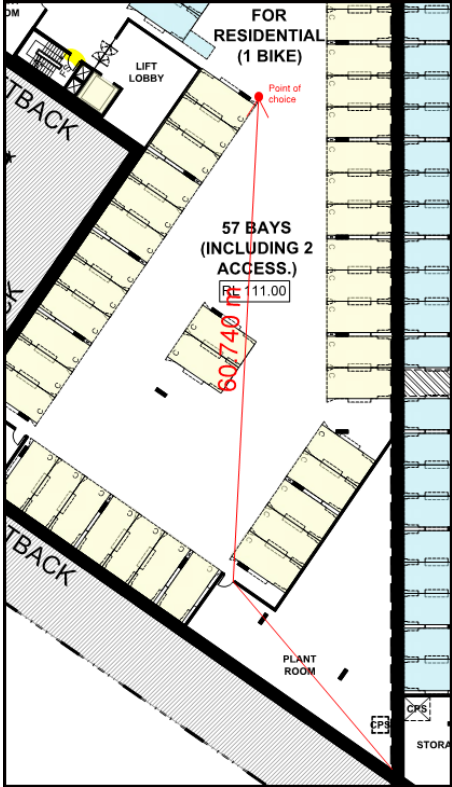
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
	X				<p>The class 5 commercial unit on level 2 has not been provided with an exit/s.</p>  <p>Compliance commentary:</p> <p>The client has confirmed that egress from the following residential sole-occupancy units on the lower ground level of is via the courtyard doors. It is unclear which doors will be serving as the required exits (see snippet below). Although compliance with this clause has been achieved, this proposal potentially fails to comply with D3D24. Refer to clause D3D24 for further details.</p> 

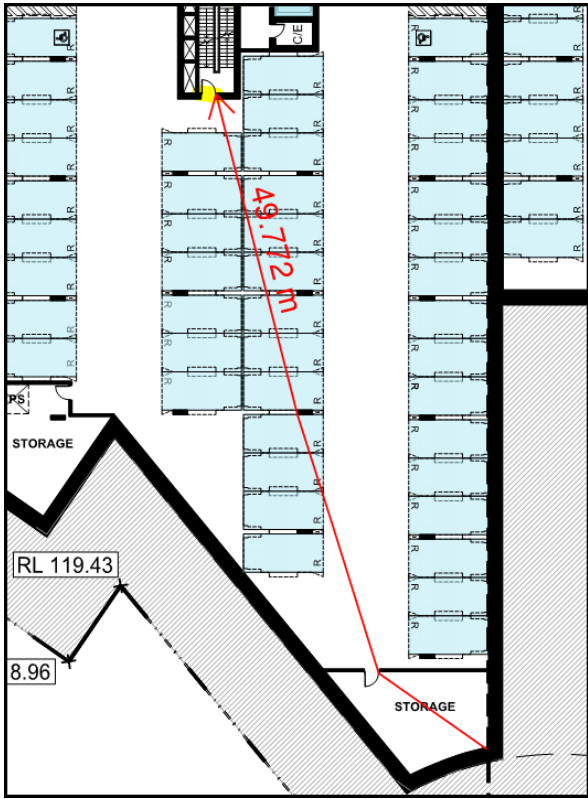
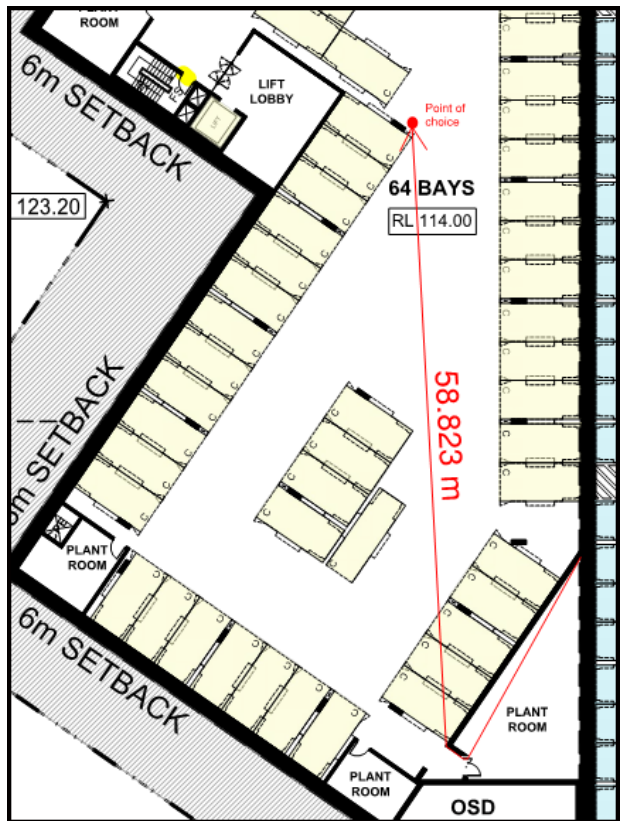


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
				X	<p>BCA Requirements:</p> <p>(1) All buildings — Every building must have at least one exit from each storey.</p> <p>(2) Class 2 to 8 buildings —</p> <p>(a) In addition to any horizontal exit, not less than 2 exits must be provided from the following:</p> <p>(i) Each storey if the building has an effective height of more than 25 m.</p> <p>(b) The requirements of (a)(i) do not apply to a part of a storey that—</p> <p>(i) is provided with direct egress to a road or open space; and</p> <p>(ii) satisfies D2D5 by the provision of 1 exit.</p> <p>(3) Basements — In addition to any horizontal exit, not less than 2 exits must be provided from any storey if egress from that storey involves a vertical rise within the building of more than 1.5 m.</p> <p>(4) Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to—</p> <p>(a) an exit; or</p> <p>(b) at least 2 exits if 2 or more exits are required.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D2D4</p> <p>When fire-isolated stairways and ramps are required [2019: D1.3]</p>	X				<p>Compliance commentary:</p> <p>Fire-isolated stairways have been proposed throughout.</p> <p>BCA Requirements:</p> <p>(1) Class 2 buildings — The following applies:</p> <p>(a) Subject to (b), every stairway or ramp serving as a required exit must be fire-isolated unless it connects, passes through or passes by not more than 3 consecutive storeys in a Class 2 building.</p> <p>(b) Notwithstanding (a), one extra storey of any classification may be included if the building has a sprinkler system complying with Specification 17 installed throughout.</p> <p>(2) Class 5, 6 or 7 buildings — Every stairway or ramp serving as a required exit must be fire-isolated unless—</p> <p>(a) it connects, passes through or passes by not more than 2 consecutive storeys and one extra storey of any classification may be included if the building has a sprinkler system complying with Specification 17 installed throughout.</p>
<p>D2D5</p> <p>Exit travel distances [2019: D1.4]</p>				X	<p>Important note:</p> <ul style="list-style-type: none"> The client has confirmed that the solid columns in the basement carparks are generally to be provided in the basement as positioned every third car space and setback 750mm from the front of car spaces The client has confirmed that the dashed lines shown in the basement carparks between different parking compartments does not represent roller shutters and represents future breakthrough panels. As such, this assessment has been undertaken based on the final product, being once the breakthrough panels have been removed.

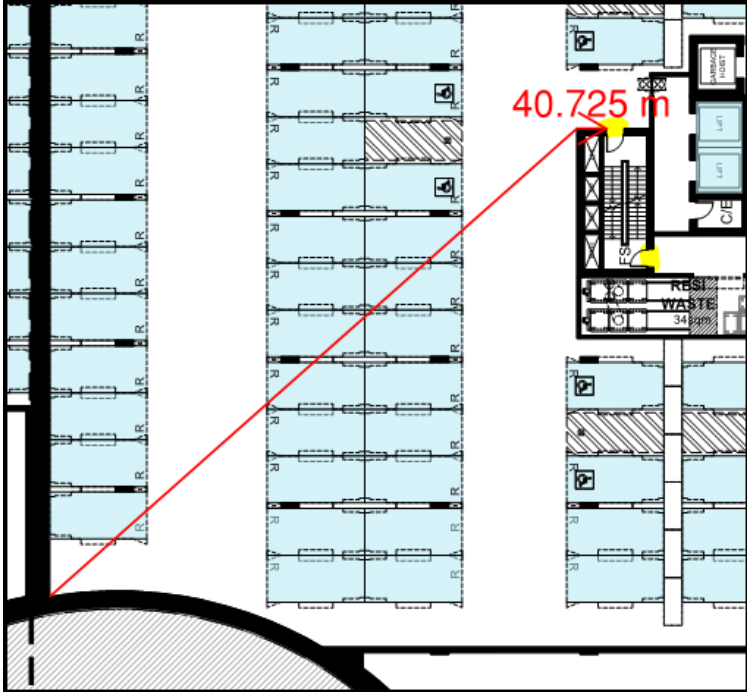
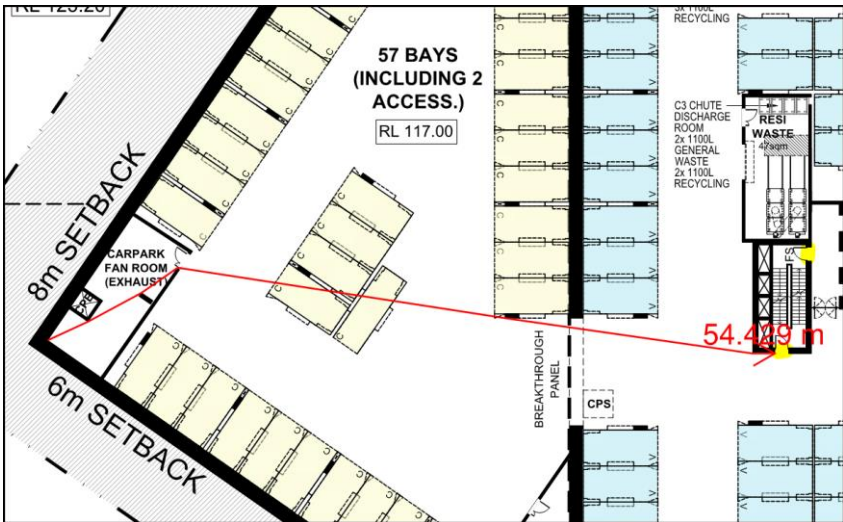


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>X DTS Non-compliance:</p> <p>The client has confirmed that egress from the following residential sole-occupancy units on the lower ground level is via the courtyard doors and not via the entrance doorway. D2D5(1) of this clause details that the entrance doorway of any sole-occupancy unit must be not more than 6m or 20m from an exit or point of choice to 2 exits. This stipulates that the egress pathway from the sole-occupancy units to an exit must be through the entrance doorway.</p>  

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					
				X	<p>Further information required:</p> <p>Exit doorways have not been detailed in the following areas, and as such the exit travel distances in these areas could not be assessed:</p> <ul style="list-style-type: none"> Level 2: Commercial unit in building C Level 10: Residential units B1004 in building B. This appears to be a drafting error where the door is shown as being blocked off.
			X		<p>DTS Non-compliance:</p> <p>There are various areas where exit travel distances do not comply:</p> <p>Basement 2: More than 20m to a point of choice to an exit (circa 60.7m).</p> 

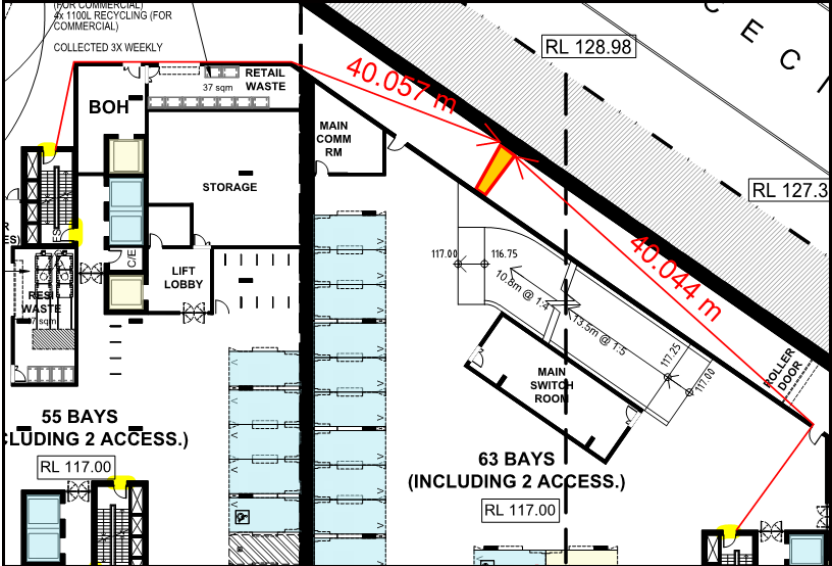
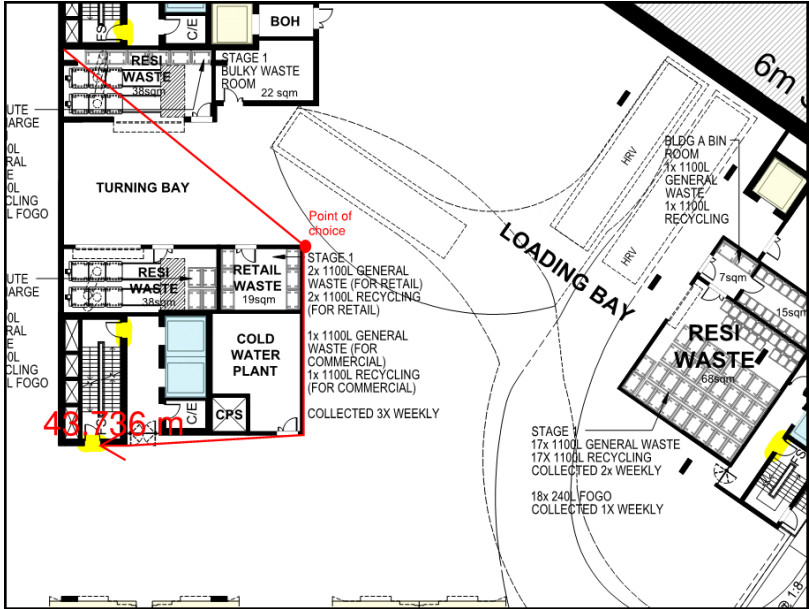
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Basement 2: More than 40m to one exit (circa 49.7m).</p> 
					<p>Basement 1: More than 20m to a point of choice to an exit (circa 58.8m).</p> 



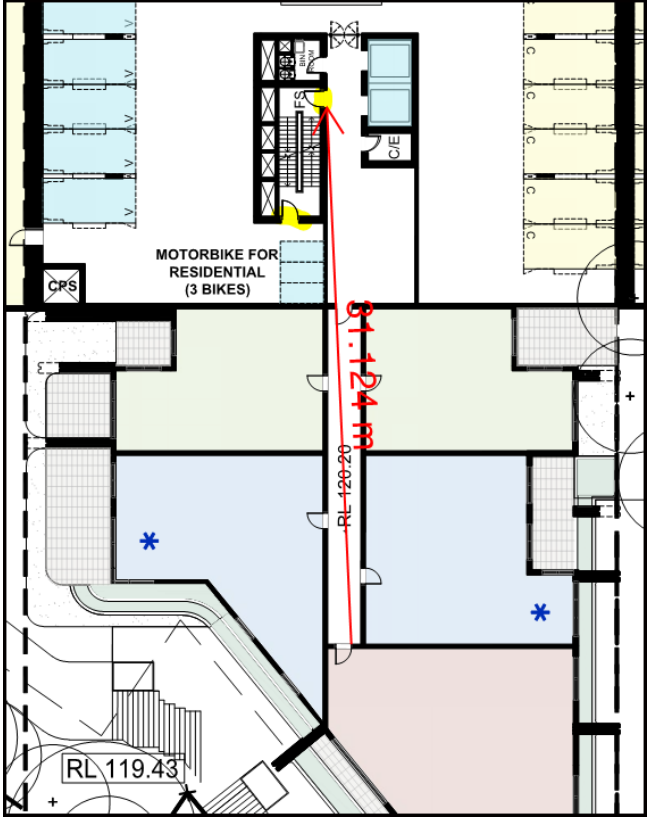
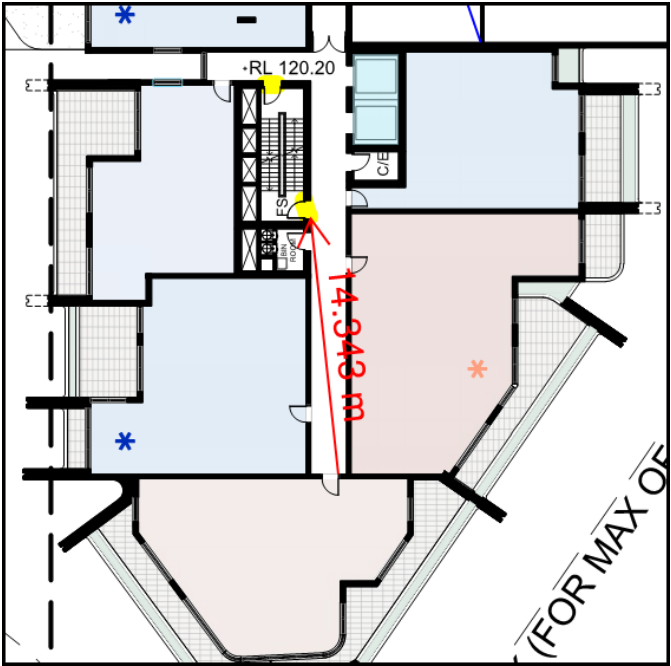
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Basement 1: More than 40m to one exit (circa 40.7m).</p> 
					<p>Lower Ground: More than 40m to one exit (circa 55.0m).</p> 



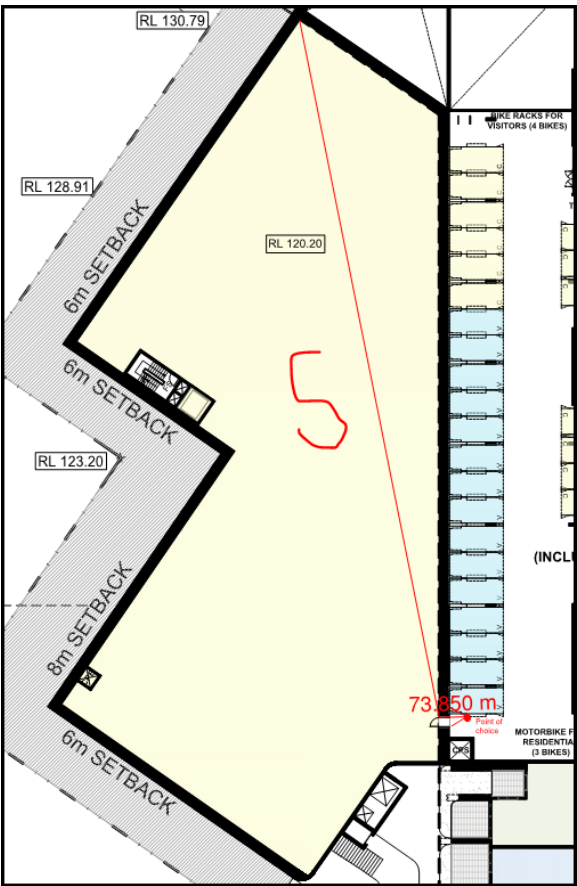
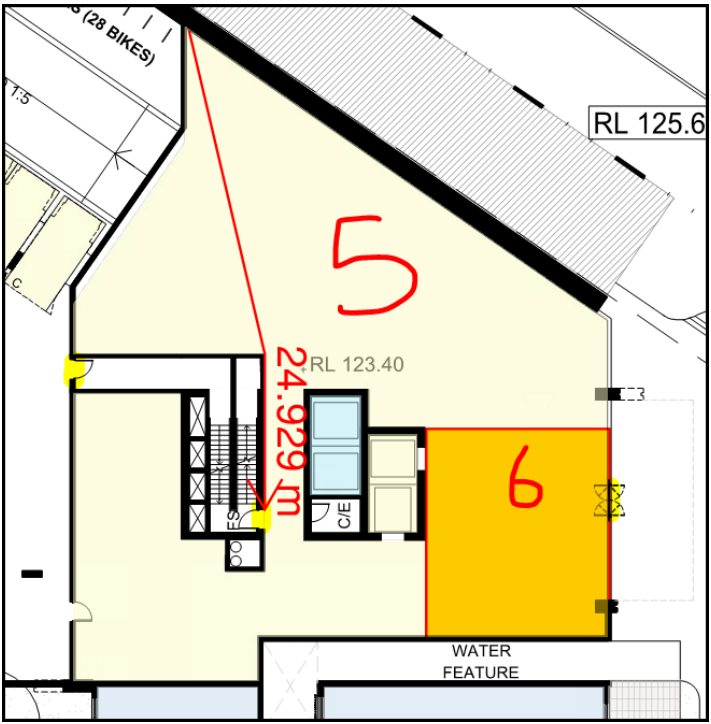


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Lower Ground: More than 40m to one exit (non-complaint areas highlighted).</p>  <p>Lower Ground: More than 40m to one exit (circa 43.7m).</p> 

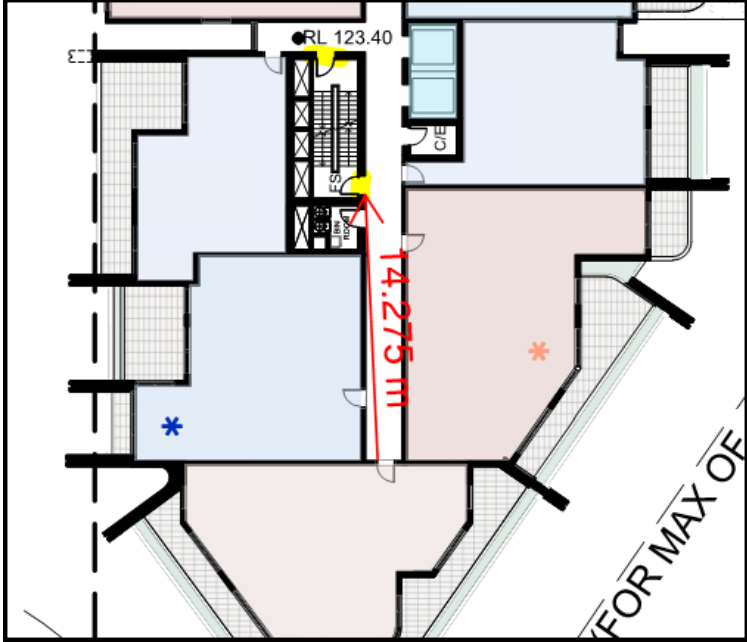
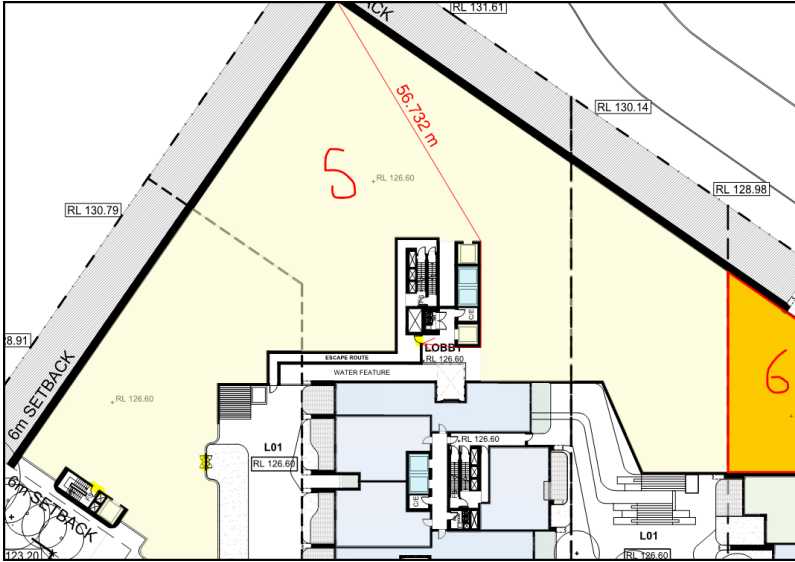


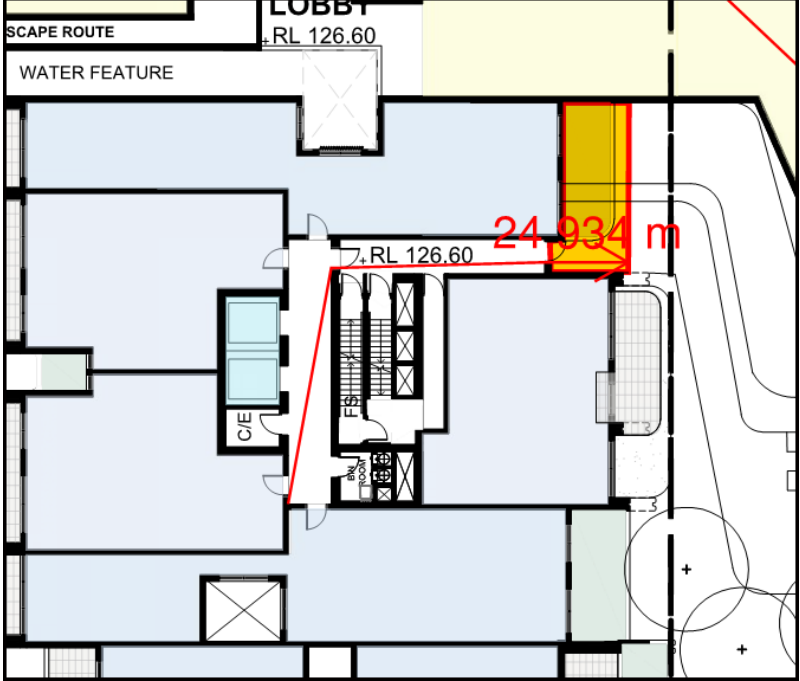
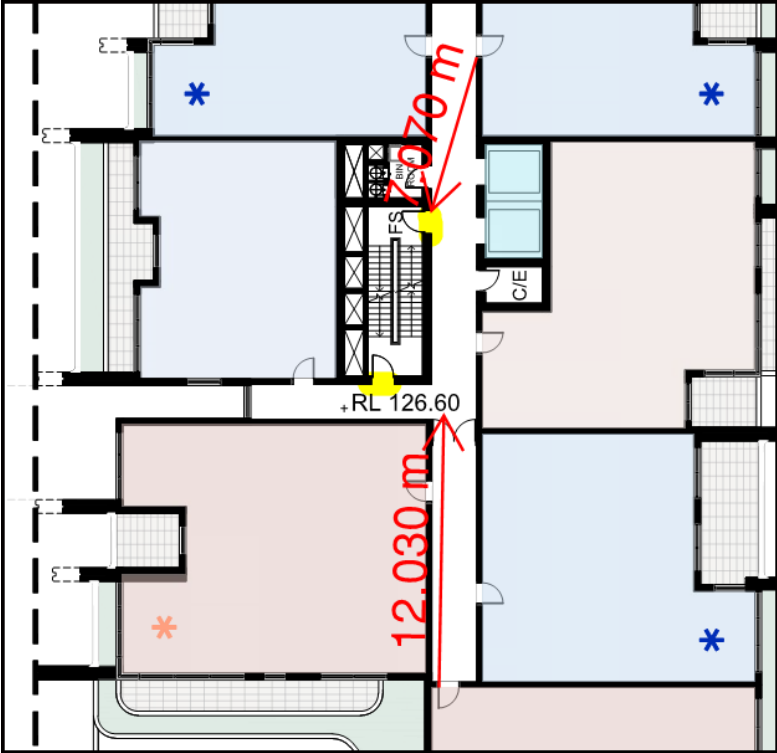
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Ground: More than 6m from an exit or a point of choice (worst case circa 31.1m) and more than 20m from an exit or a point of choice for an area not within a SOU (worst case circa 31.1m).</p>  <p>The diagram shows a floor plan with a staircase and an exit labeled 'C/E'. A red line indicates a distance of 31.124m from the exit to a residential area labeled 'MOTORBIKE FOR RESIDENTIAL (3 BIKES)'. Other labels include 'CPS', 'RL 119.43', and 'RL 120.20'.</p> <p>Ground: More than 6m from an exit of a point of choice (worst case circa 14.3m).</p>  <p>The diagram shows a floor plan with a staircase and an exit labeled 'C/E'. A red line indicates a distance of 14.343m from the exit to a residential area. Other labels include 'RL 120.20' and '(FOR MAX OF'.</p>

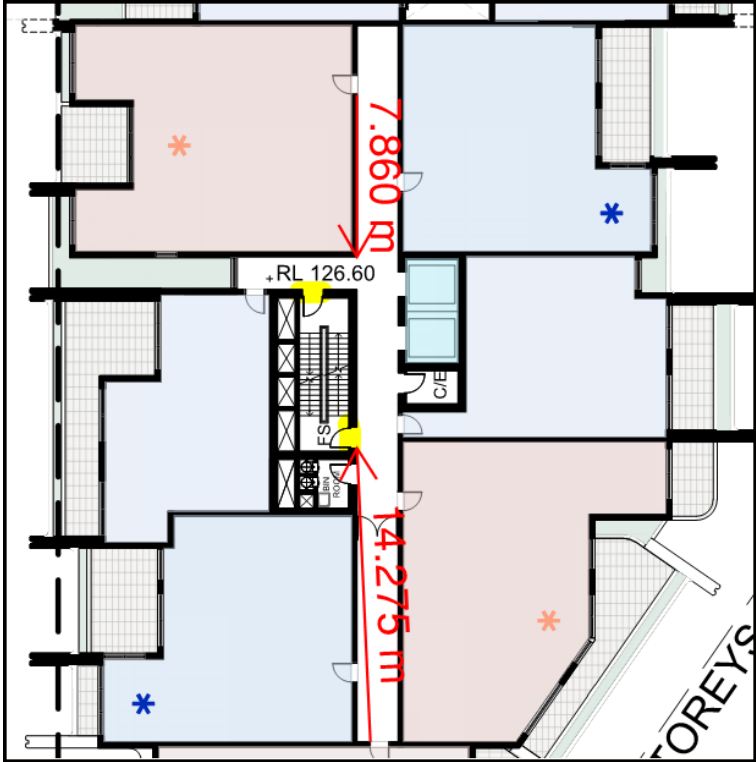
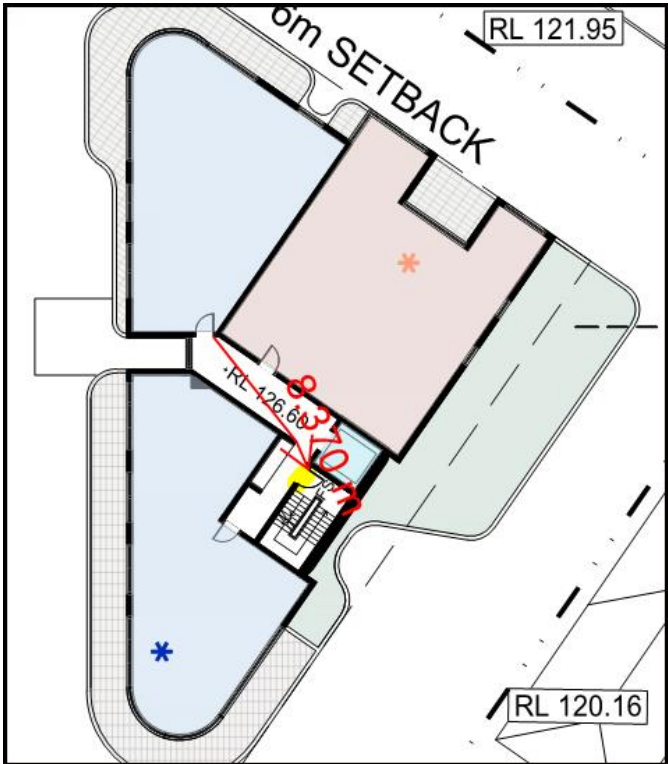


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Ground: More than 20m to a point of choice (circa 73.8m) and more than 40m to a single exit (circa 85.9m)</p>  <p>The diagram shows a site plan with setbacks: 6m SETBACK on the top-left and bottom-left sides, and 8m SETBACK on the bottom-left side. A red line indicates a distance of 73.850 m to a 'Point of choice'. Other features include 'BIKE RACKS FOR VISITORS (4 BIKES)', 'MOTORBIKE RESIDENTIAL (3 BIKES)', and various RL values (130.79, 128.91, 120.20, 123.20).</p>
					<p>Upper Ground: More than 20m to single exit (circa 24.9m)</p>  <p>The diagram shows a site plan with setbacks: 7.5m on the top-left and 7.3m on the top-right. A red line indicates a distance of 24.929 m to a 'Single exit'. Other features include 'WATER FEATURE', 'C/OE', and various RL values (125.6, 123.40).</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Upper Ground: More than 6m to a single exit or a point of choice (worst case circa 14.2m)</p>  <p>Level 1: More than 40m to an exit (circa 56.7m).</p> 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Level 1: More than 20m from an exit or a point of choice (worst case circa 24.8m) and more than 20m from an exit or a point of choice for an area not within a SOU (worst case circa 24.9m).</p>  <p>Level 1: More than 6m to a single exit (worst case circa 7.0m) or to a point of choice (worst case circa 12.0m).</p> 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Level 1: More than 6m to a point of choice (worst case circa 14.2m).</p>  <p>Level 1: More than 6m to a single exit (worst case circa 8.3m).</p>  <p>Non-compliant travel distances were also identified on levels 2 to 26 and have been listed below:</p>



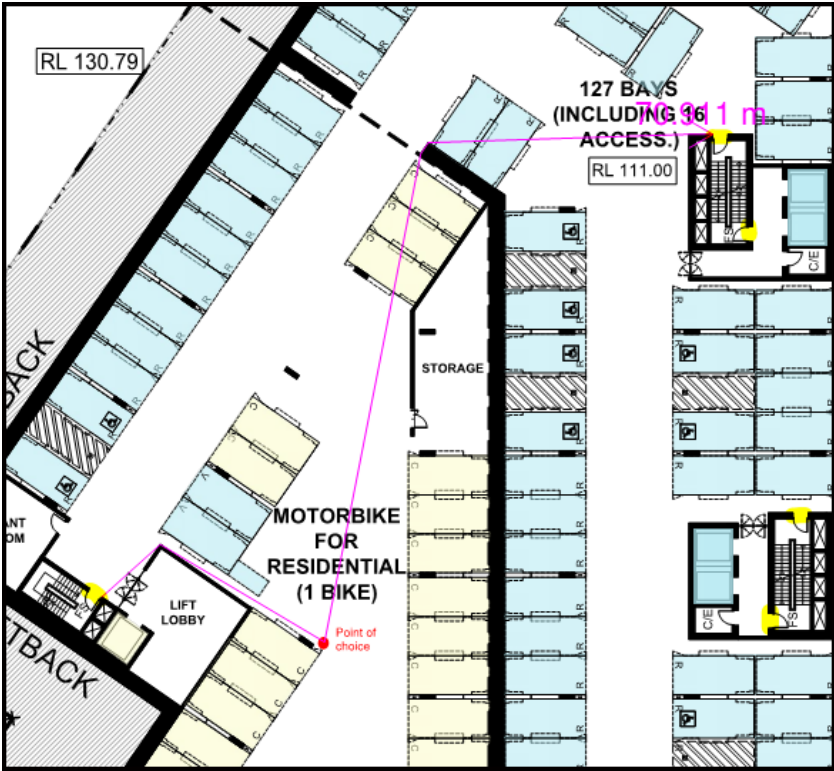
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Level 2:</p> <ul style="list-style-type: none"> <u>Building A:</u> More than 6m from front door of furthest unit to a single exit (circa 8.1m). <u>Building B (Northern side):</u> More than 20m from front door of furthest unit to a single exit (circa 30.0m). <u>Building B (Northern side):</u> More than 20m from area not within SOU to a single exit (circa 30.4m). <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.3m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 17.1m). <u>Building C (Middle side):</u> More than 6m from front door of furthest unit to a point of choice (circa 15.1m). <u>Building C (Northern side):</u> More than 20m from area not within SOU to a single exit (circa 21.8m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a point of choice (circa 11.9m). <u>Building D:</u> More than 6m from front door of furthest unit to a single exit (circa 9.1m). <p>Level 3:</p> <ul style="list-style-type: none"> <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.2m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 15.4m). <u>Building C (Northern side):</u> More than 20m from area not within SOU to a single exit (circa 21.8m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 13.9m). <u>Building D:</u> More than 6m from front door of furthest unit to a single exit (circa m). <p>Level 4:</p> <ul style="list-style-type: none"> <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.3m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 13.9m). <u>Building D:</u> More than 6m from front door of furthest unit to a single exit (circa 9.1m). <p>Levels 5 to 9:</p> <ul style="list-style-type: none"> <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 14.2m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 8.6m).

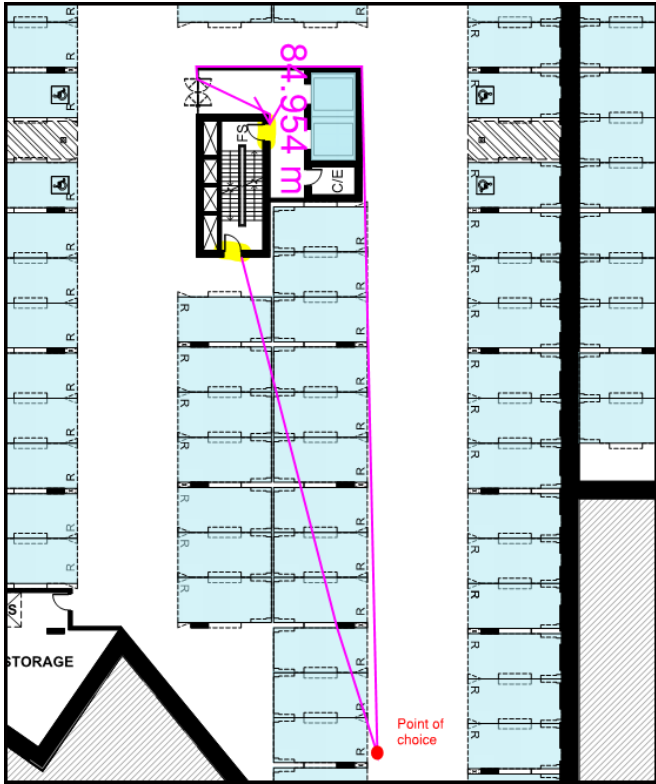
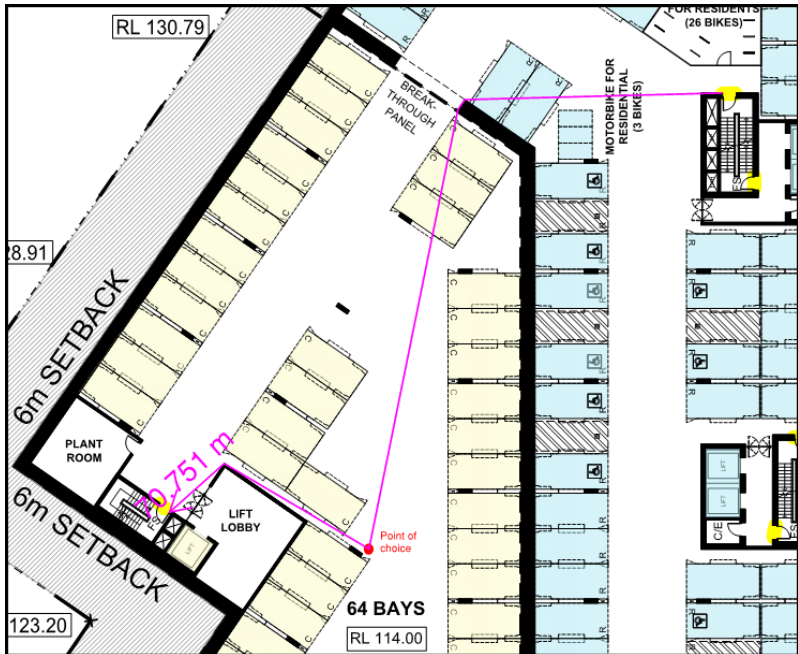


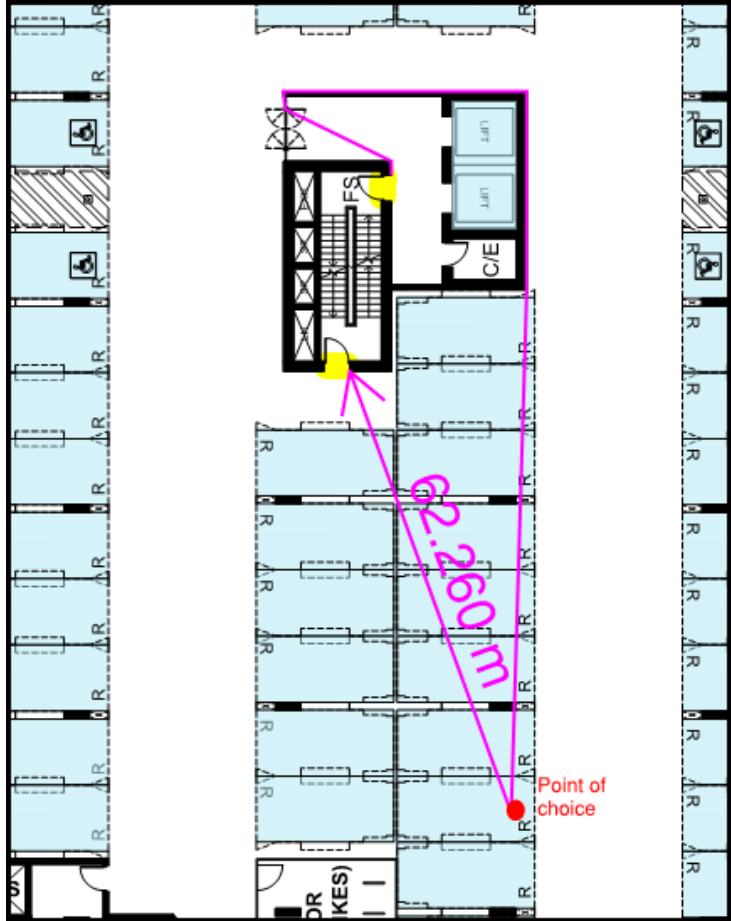
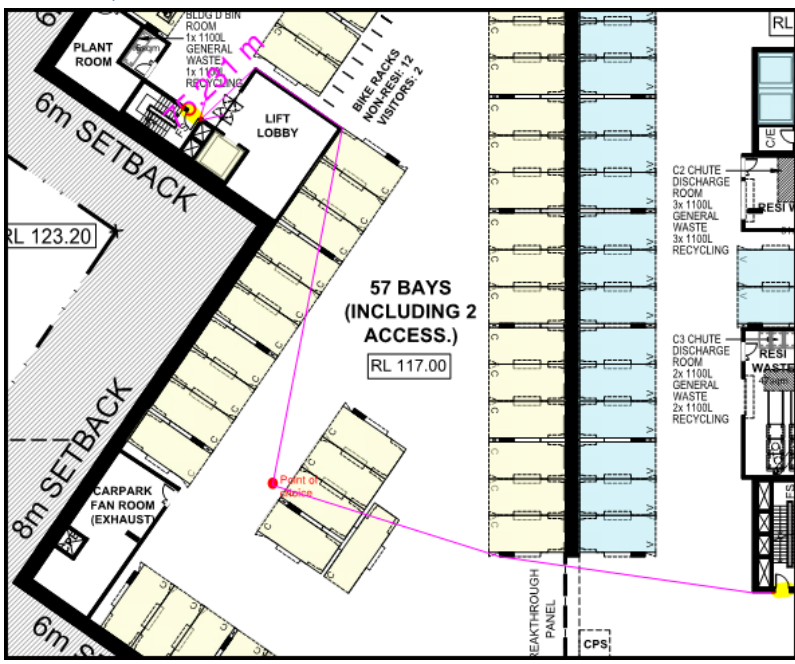


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Level 10:</p> <ul style="list-style-type: none"> <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 6.5m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 8.6m). <p>Level 11:</p> <ul style="list-style-type: none"> <u>Building B (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 15.6m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 7.0m). <p>Level 12:</p> <ul style="list-style-type: none"> <u>Building B (Southern side):</u> More than 20m from furthest point on communal open space to point of choice (circa 25.6m). <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.3m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 16.3m). <p>Levels 13 to 14:</p> <ul style="list-style-type: none"> <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m). <u>Building C (Southern side):</u> More than 6m from front door of furthest unit to a single exit (circa 16.3m). <p>Level 15:</p> <ul style="list-style-type: none"> <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m). <u>Building C (Southern side):</u> More than 20m from further point on communal open space to an exit (circa 22.7m). <p>Level 16 to 25:</p> <ul style="list-style-type: none"> <u>Building C (Northern side):</u> More than 6m from front door of furthest unit to a single exit (circa 10.4m). <p>Level 26:</p> <ul style="list-style-type: none"> <u>Building C (Northern side):</u> More than 20m from further point on communal open space to an exit (circa 22.7m).

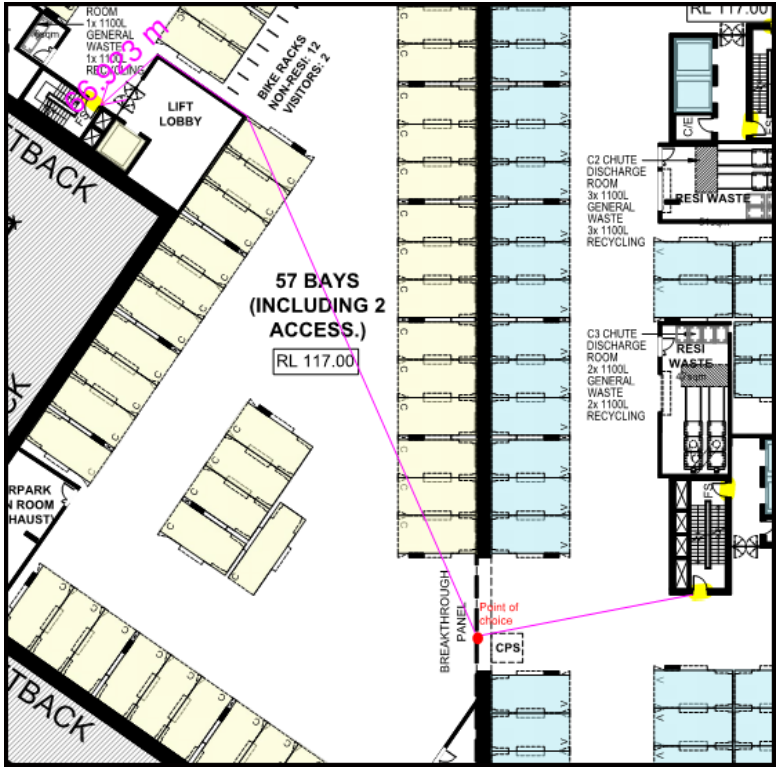
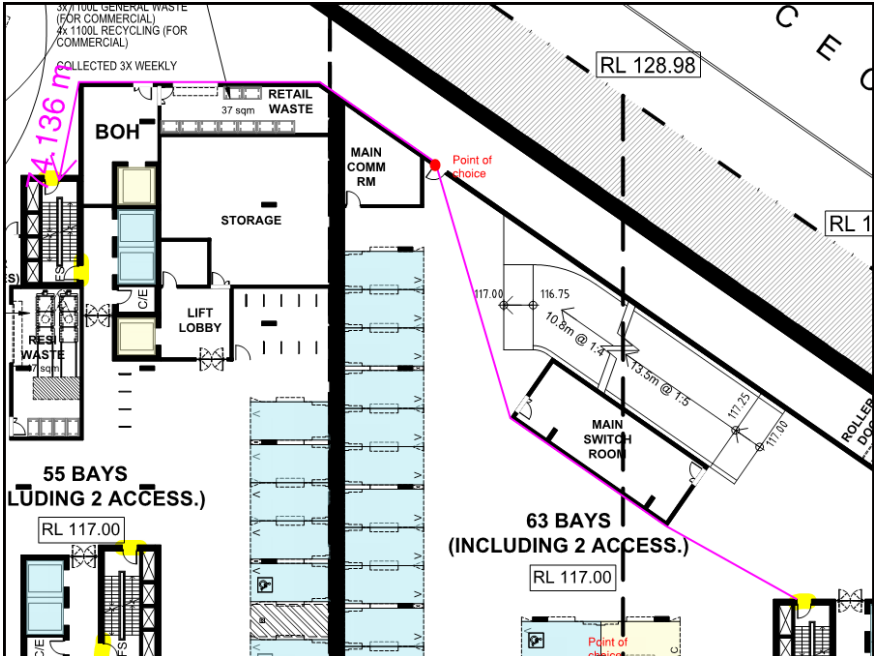


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
				X	<p>BCA Requirements:</p> <p>(1) Class 2 buildings —</p> <p>(a) The entrance doorway of any sole-occupancy unit must be not more than—</p> <p>(i) 6 m from an exit or from a point from which travel in different directions to 2 exits is available; or</p> <p>(ii) 20 m from a single exit serving the storey at the level of egress to a road or open space; and</p> <p>(b) no point on the floor of a room which is not in a sole-occupancy unit must be more than 20 m from an exit or from a point at which travel in different directions to 2 exits is available.</p> <p>(2) Class 5, 6 or 7 buildings —</p> <p>(a) 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 40 m; and</p> <p>(b) in a Class 5 or 6 building, the distance to a single exit serving a storey at the level of access to a road or open space may be increased to 30 m.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D2D6 Distance between alternative exits [2019: D1.5]		X			<p>DTS Non-compliance:</p> <p>There are various areas where the distance between alternative exits exceeds the maximum allowable:</p> <p>Basement 2: The distance between the alternative exits exceeds 60m (circa 70.9m)</p> 

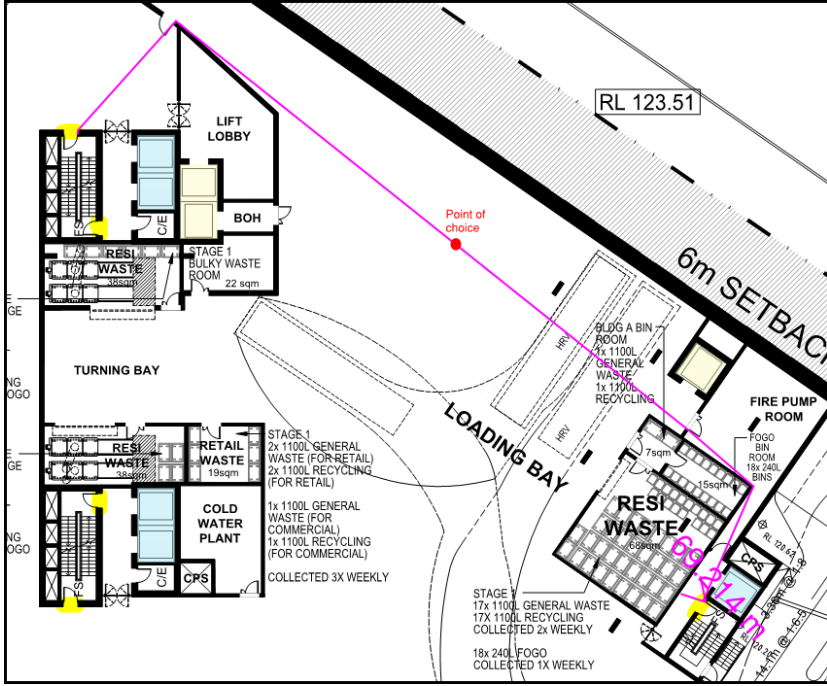
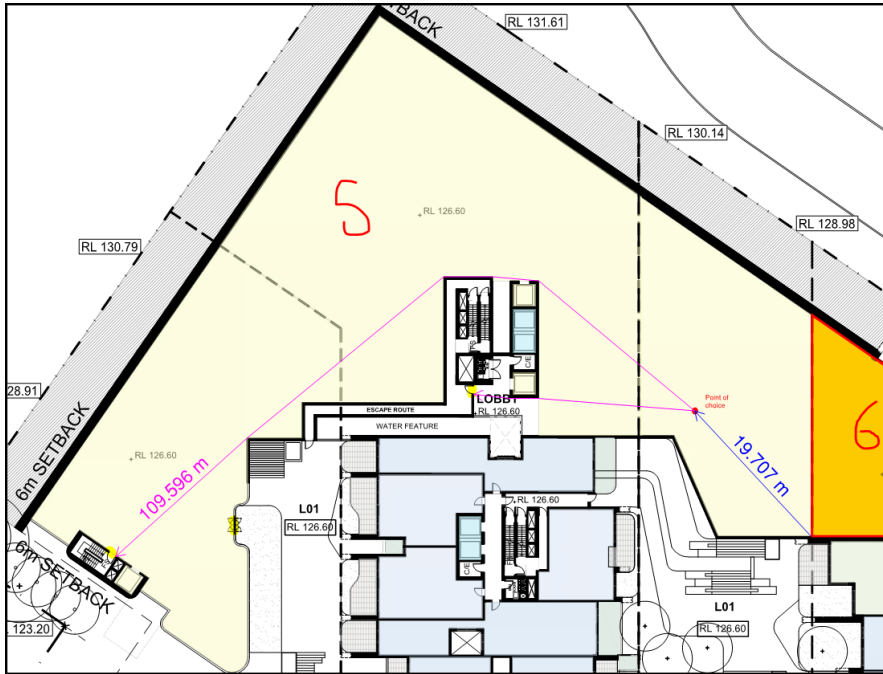
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Basement 2: The distance between the alternative exits exceeds 60m (circa 84.9m)</p>  <p>Basement 1: The distance between the alternative exits exceeds 60m (circa 70.5m)</p> 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Basement 1: The distance between the alternative exits exceeds 60m (circa 62.6m)</p>  <p>Lower Ground: The distance between the alternative exits exceeds 60m (circa 75.2m)</p> 

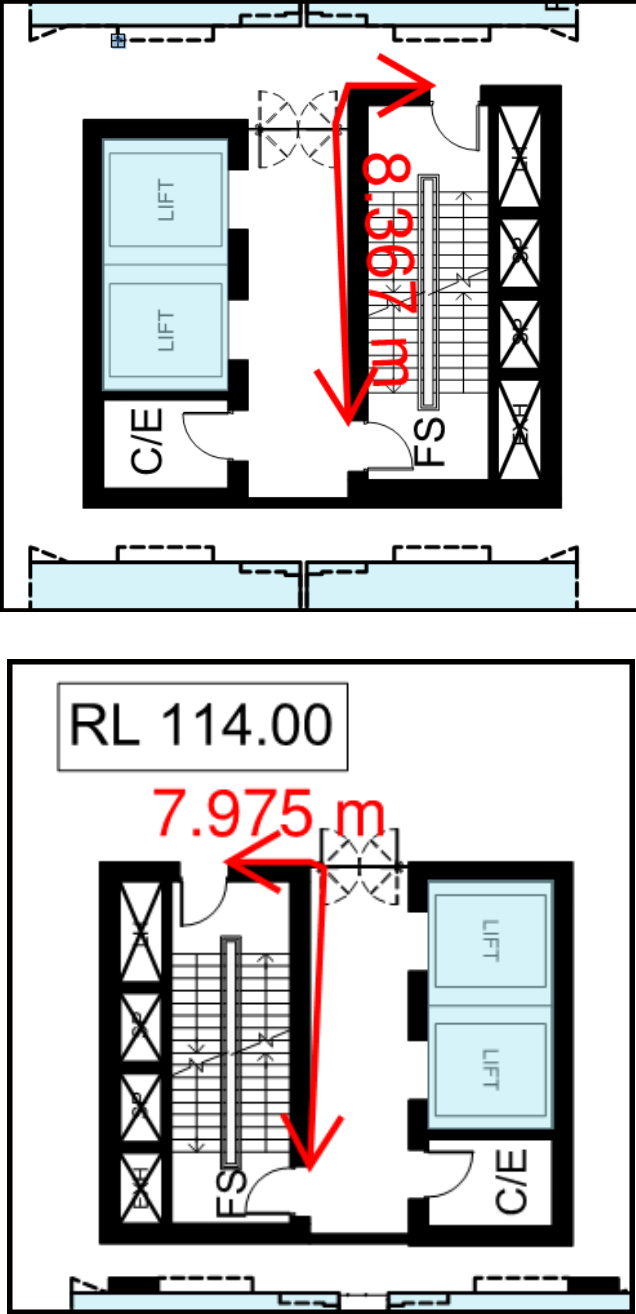


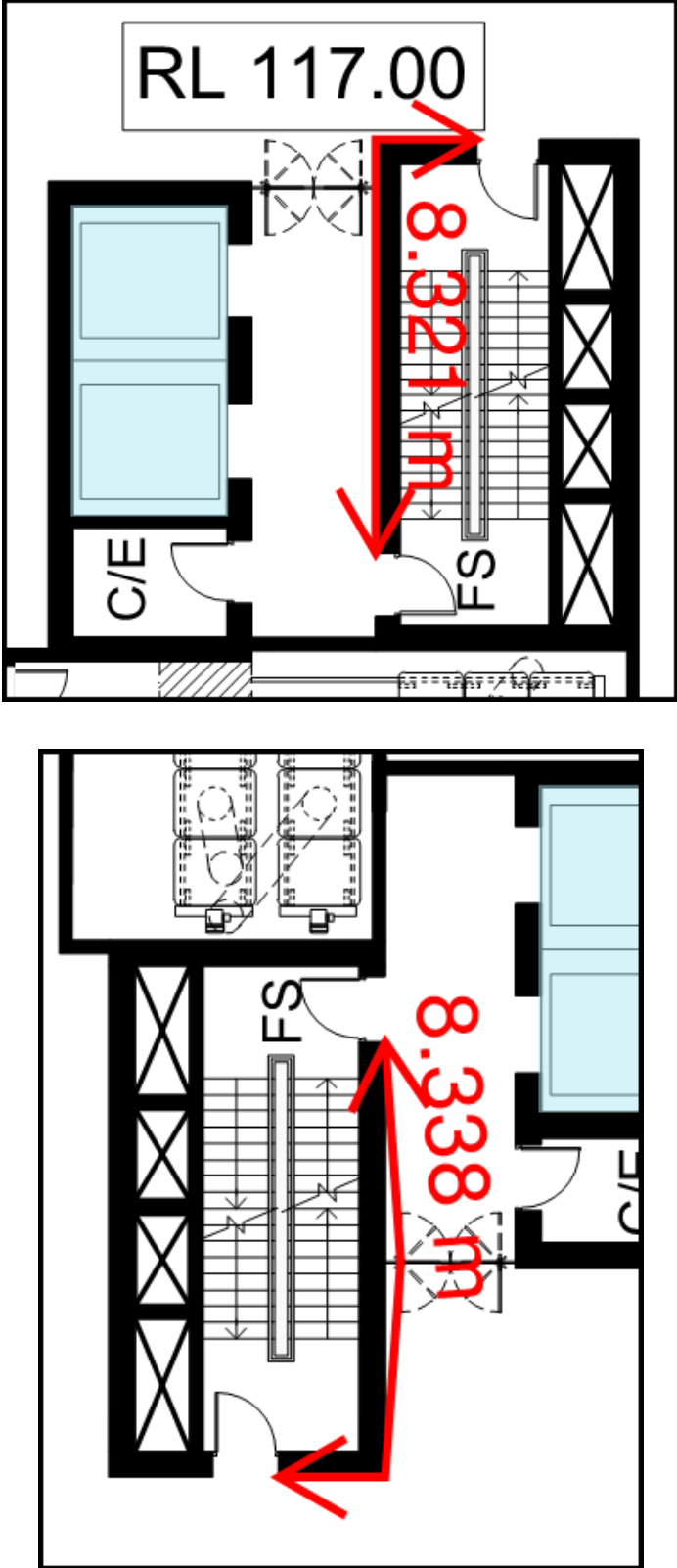
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Lower Ground: The distance between the alternative exits exceeds 60m (circa 66.9m).</p> 
					<p>Lower Ground: The distance between the alternative exits exceeds 60m (circa 74.1m).</p> 

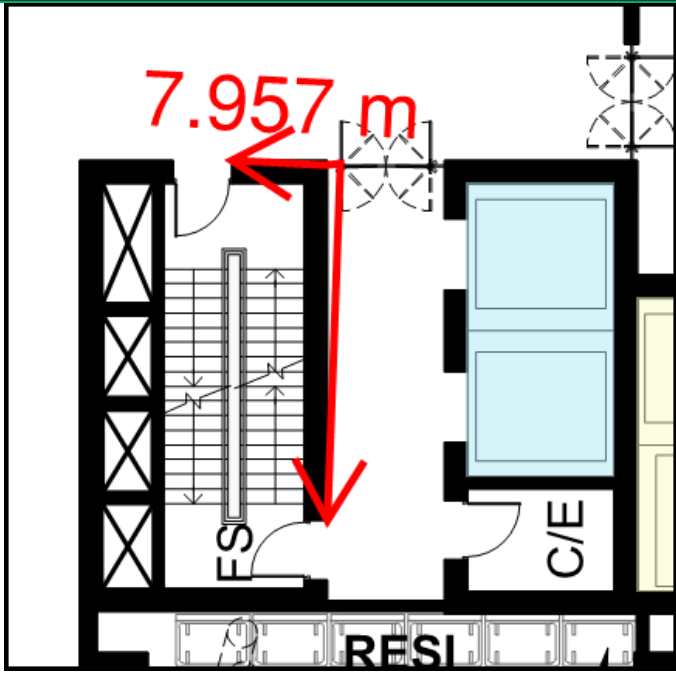
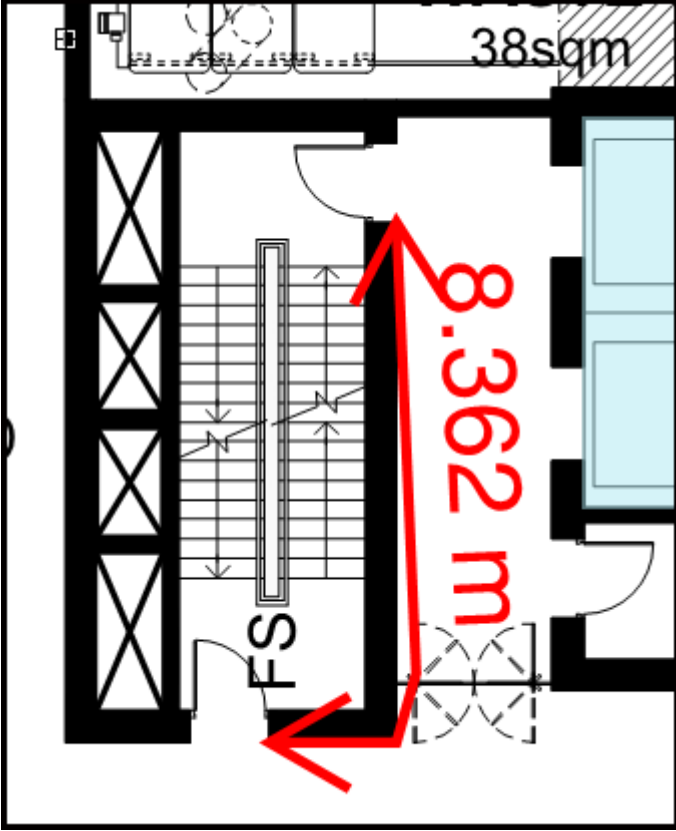


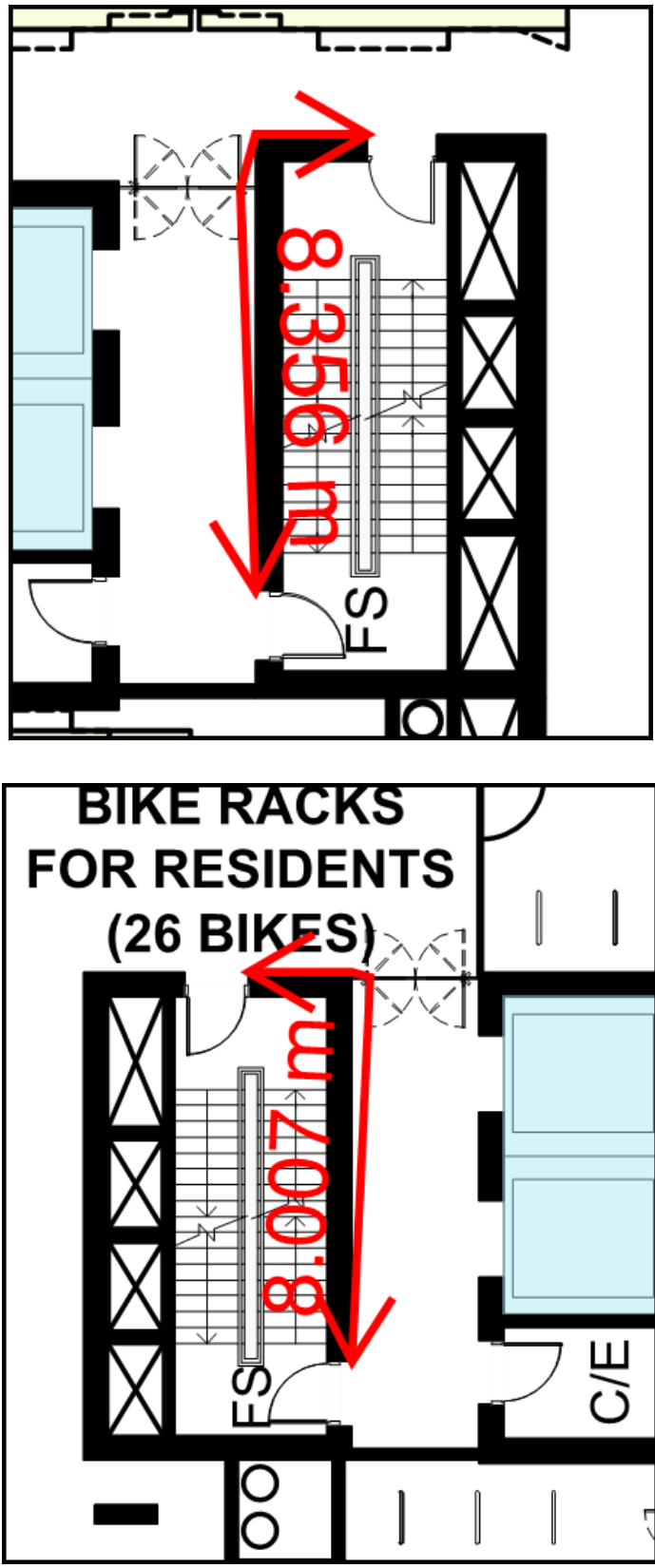
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Lower Ground: The distance between the alternative exits exceeds 60m (circa 69.2m).</p>  <p>Level 1: The distance between the alternative exits exceeds 60m (circa 109.52m).</p>  <p>DTS Non-compliance: There are various areas where the distance between alternative exits is less than the 9m:</p>
		X			

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Basement 2: The distance between alternative exits is less than 9m in the following areas:</p> <p>The diagrams illustrate two specific areas in Basement 2 where the distance between alternative exits is less than 9 meters. In the top diagram, a red double-headed arrow indicates a distance of 8.357m between a Circumferential Exit (C/E) and a Fire Staircase (FS). In the bottom diagram, a red double-headed arrow indicates a distance of 8.007m between a Fire Staircase (FS) and a Circumferential Exit (C/E). Both diagrams also show other architectural features like walls, doors, and stairs.</p>

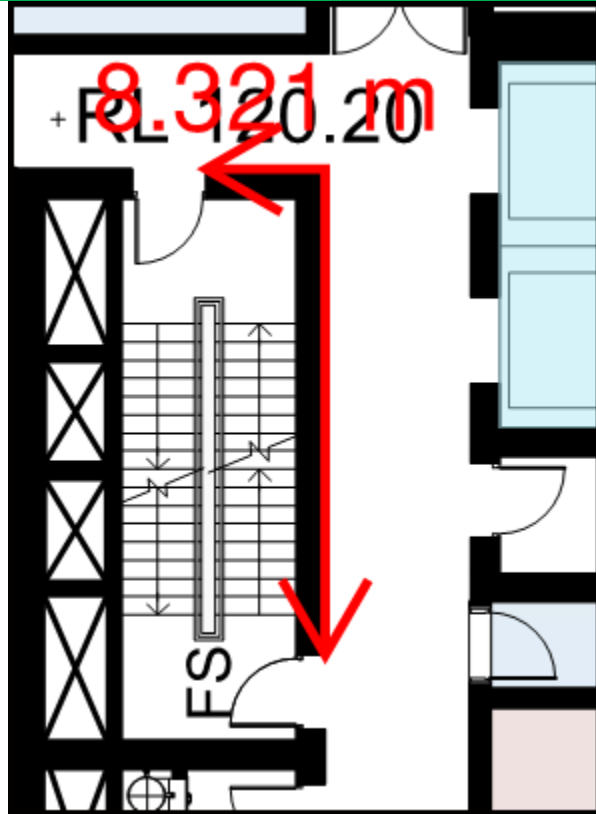
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Basement 1: The distance between alternative exits is less than 9m in the following areas:</p> 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Lower Ground: The distance between alternative exits is less than 9m in the following areas:</p> 

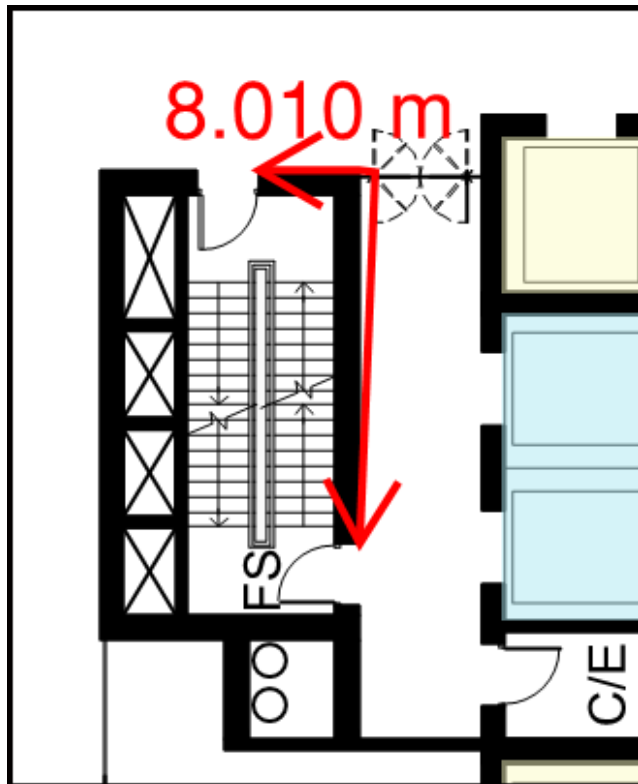
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Ground Floor: The distance between alternative exits is less than 9m in the following areas:</p> 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
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Upper Ground: The distance between alternative exits is less than 9m in the following areas:



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<div> </div> <p>Non-compliant distances between alternative exits were also identified in other areas and have been listed below:</p> <p>Level 1 to 2:</p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 4.6m). <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p>Level 2:</p> <ul style="list-style-type: none"> <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p>Level 3:</p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m).



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 4 to 9:</u></p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 10:</u></p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building B (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.4m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p><u>Level 11:</u></p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Southern fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.5m).





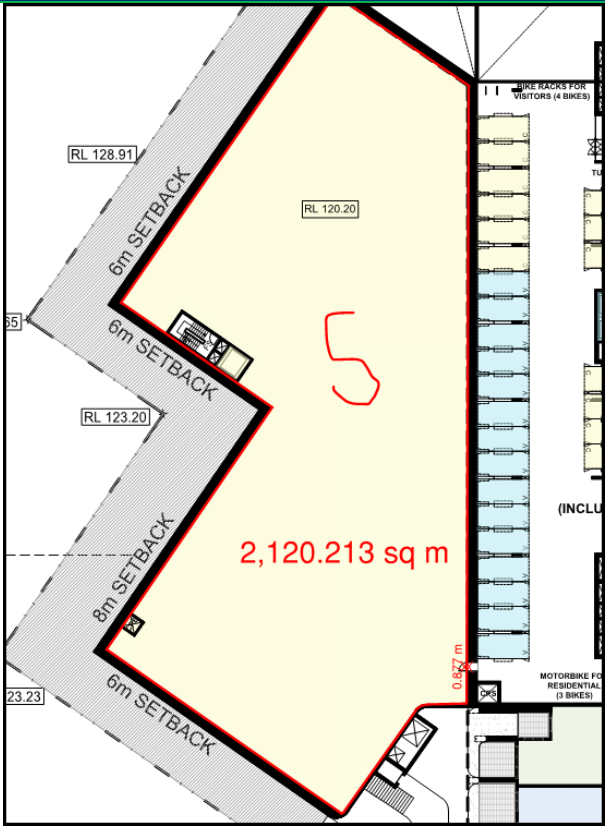
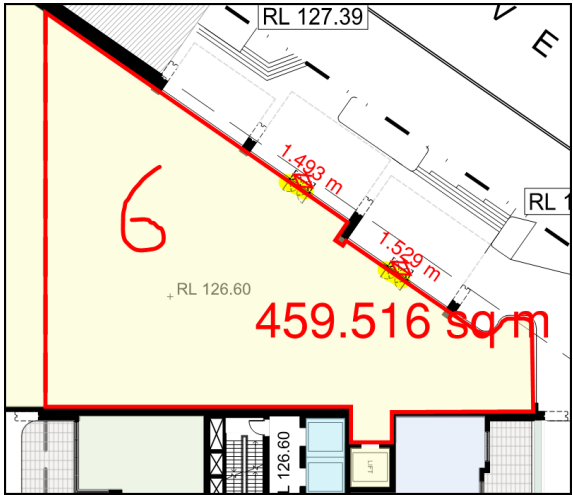
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>Level 12 to 15:</p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building B (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.8m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p>Level 16 to 18:</p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.3m). <p>Level 19:</p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Middle fire stairways):</u> Distance between alternative exits is less than 9m (circa 8.7m). <p>Level 20:</p> <ul style="list-style-type: none"> <u>Building B (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m). <p>Level 21-26:</p> <ul style="list-style-type: none"> <u>Building C (Northern fire stairways):</u> Distance between alternative exits is less than 9m (circa 7.7m).
				X	<p>DTS Non-compliance:</p> <p>All scissor stairways are alternative paths of travel that converge such that they become less than 6m apart from each other. This will need to be addressed via a performance-based solution.</p>
		X			<p>BCA Requirements:</p> <p>Exits that are required as alternative means of egress must be—</p> <ul style="list-style-type: none"> (a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and (b) not less than 9 m apart; and (c) not more than—

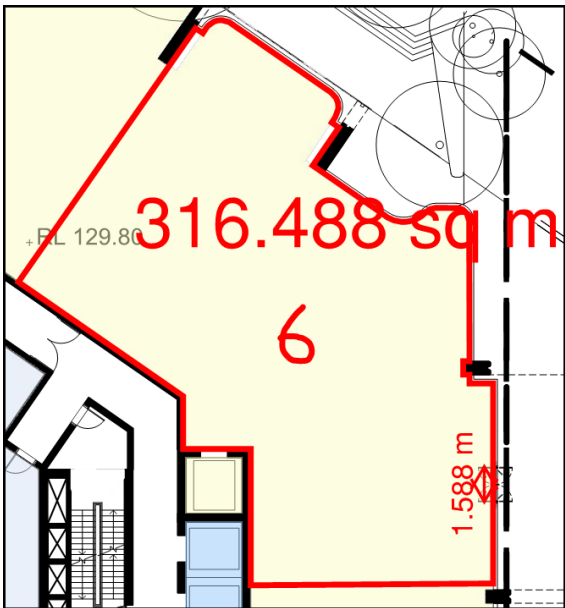




BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(i) in a Class 2 building — 45 m apart; or (ii) in all other cases — 60 m apart; and (d) located so that alternative paths of travel do not converge such that they become less than 6m apart.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D2D7 Height of doorways in exits and paths of travel to exits [2019: D1.6(a)]</p>				X	<p>In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>NSW D2D8 Width of exits and paths of travel to exits [2019: D1.6(b), (c), (d) and (e)]</p>				X	<p>Further information required:</p> <p>Level 2: The commercial space to the northern side of building C has been assessed as a class 5 and has a floor area of approximately 304m². In accordance with D2D18, it can accommodate a maximum of 31 persons and therefore the aggregate width of exits must be no less than 1m. As there are no exit doorways detailed, it is unclear if the widths of the exit/s comply.</p> <p>BCA Requirements:</p> <p>(1) The unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than— (a) 1 m.</p> <p>(2) If the storey accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than— (a) 1 m plus 250 mm for each 25 persons (or part) in excess of 100.</p> <p>(3) If the storey accommodates more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than— (a) 2 m plus 500 mm for every 60 persons (or part) in excess of 200 persons if egress involves a change in floor level by a stairway or ramp with a gradient steeper than 1 in 12.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>NSW D2D9 Width of doorways in exits or paths of travel to exits [2019: D1.6, NSW D1.6(f)(vi)]</p>		X			<p>DTS Non-compliance:</p> <p>Ground floor: The commercial space in building D has been assessed as a class 5 and has a floor area of approximately 2,120m². In accordance with D2D18, it can accommodate a maximum of 212 persons and therefore the aggregate width of exits must be no less than 2.5m. As only a single doorway is provided, it must have a minimum width of 2.25m. The width of the doorway is circa 0.87m and does not comply.</p>



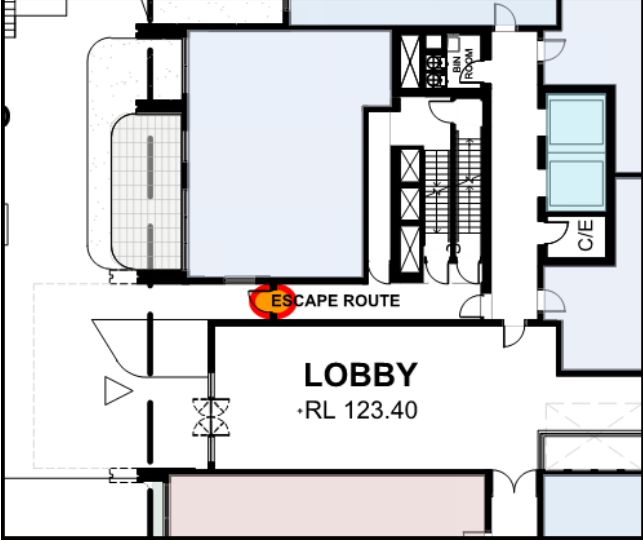
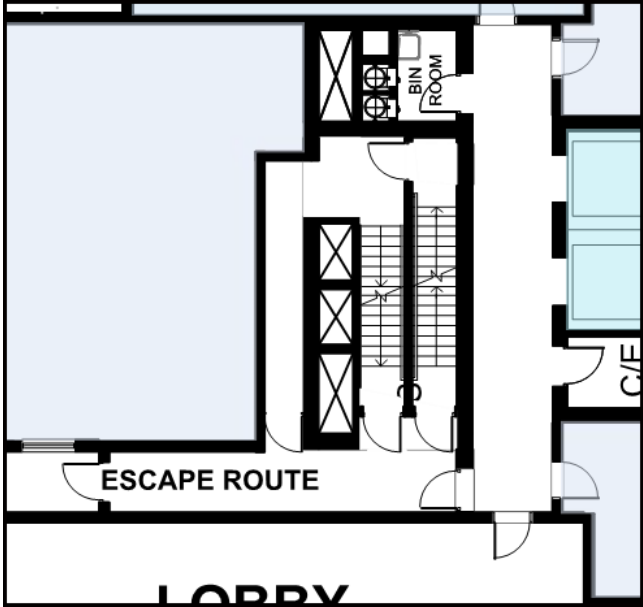
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational	NA or	Compliance Required	COMMENTS
						 <p>Level 1: The retail space in building B has been assessed as a class 6 and has a floor area of approximately 460m². In accordance with D2D18, it can accommodate a maximum of 460 persons and therefore the aggregate width of exits must be no less than 4m. As two doorways are provided, the aggregate width of both doors must be 3.5m. The aggregate width of both doors is circa 3.0m and does not comply.</p>  <p>Level 2: The retail space in building C has been assessed as a class 6 and has a floor area of approximately 317m². In accordance with D2D18, it can accommodate a maximum of 317 persons and therefore the aggregate width of exits must be no less than 3m. As only a single doorway is</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>provided, it must have a minimum width of 2.75m. The width of the doorway is circa 1.55m and does not comply.</p>  <p>X BCA Requirements: In a required exit or path of travel to an exit, the unobstructed width of a doorway must be not less than—</p> <ul style="list-style-type: none"> (a) the unobstructed width of each exit provided to comply with D2D8(1), (2), (3), minus 250 mm; or (b) in any other case except where it opens to a sanitary compartment or bathroom — 750 mm wide. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D2D10 Exit width not to diminish in direction of travel [2019: D1.6(g)]				X	<p>The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i).</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D2D11 Determination and measurement of exits and paths of travel to exits [2019: D1.6(h) and (i)]			X		<p>For the purposes of D2D7 to D2D10 the following apply:</p> <ul style="list-style-type: none"> (a) The required width of a stairway or ramp in a required exit or path of travel to an exit must— <ul style="list-style-type: none"> (i) be measured clear of all obstructions such as handrails projecting parts of barriers and the like; and (ii) extend without interruption, except for ceiling cornices, to a height not less than 2m vertically above a line along the nosings of the treads or the floor surface of the ramp or landing. (b) To determine the aggregate unobstructed width, the number of persons accommodated must be calculated according to D2D18.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
D2D12 Travel via fire-isolated exits [2019: D1.7]		X			<p><u>DTS Non-compliance:</u></p> <p><u>Building A (Fire stairways):</u></p> <ul style="list-style-type: none"> The fire stairs ascending from the basement discharges onto lower ground floor beneath a covered area that fails to comply with D2D12. The fire stairs descending from the storeys above discharges onto the ground floor beneath a covered area that fails to comply with D2D12. <p><u>Building B (Northern fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto level 2 beneath a covered area that fails to comply with D2D12. <p><u>Building B (Middle fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto the upper ground floor beneath a covered area that fails to comply with D2D12. <p><u>Building B (Southern fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto the lower ground floor beneath a covered area that fails to comply with D2D12. <p><u>Building C (Middle fire stairways):</u></p> <ul style="list-style-type: none"> All 4 fire stairways (2 ascending from the basement and 2 descending from the storeys above) discharge onto Level 1 beneath a covered area that fails to comply with D2D12. <p><u>Building D (Fire stairways):</u></p> <ul style="list-style-type: none"> The fire stairway ascending from the basement and the fire stairway descending from the storeys above both discharge onto the upper ground floor beneath a covered area that fails to comply with D2D12. <p>Typical example of fire-isolated passageway discharging to the underside of a covered area that does not comply with D2D12 (taken from the upper ground floor of Building B - Middle fire stairways)</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
		X			 <p>DTS Non-compliance:</p> <p>At the discharge points of the fire stairways throughout building B & C, multiple stairways discharge into a shared fire-isolated passageway. D2D12(2) requires each fire-isolated stairway to discharge directly or by way of its own fire-isolated passageway. Typical example shown below, taken from the middle stairways of building B (upper ground level).</p> <p>It is recommended that you discuss this matter further with a fire engineer to determine if the proposed design may be supported as a Performance Solution.</p>  <p>DTS Non-compliance:</p> <p>At the discharge points of the fire stairways throughout building B & C, multiple access doorways open into the required fire-isolated passageways.</p>
		X			



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
				X	<p>BCA Requirements:</p> <p>(1) A doorway from a room must not open directly into a stairway, passageway or ramp that is required to be fire-isolated unless it is from—</p> <ul style="list-style-type: none"> (a) a public corridor, public lobby or the like; or (b) a sole-occupancy unit occupying all of a storey; or (c) a sanitary compartment, airlock or the like. <p>(2) Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway—</p> <ul style="list-style-type: none"> (a) to a road or open space; or (b) to a point— <ul style="list-style-type: none"> (i) in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least 2/3 of its perimeter; and (ii) from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or (c) into a covered area that— <ul style="list-style-type: none"> (i) adjoins a road or open space; and (ii) is open for at least 1/3 of its perimeter; and (iii) has an unobstructed clear height throughout, including the perimeter openings, of not less than 3 m; and (iv) provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6 m. <p>(3) 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, the following applies:</p> <ul style="list-style-type: none"> (a) That part of the wall must have— <ul style="list-style-type: none"> (i) an FRL of not less than 60/60/60; and (ii) any openings protected internally in accordance with C4D5; and (b) The protection required by (a) must extend 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>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D2D13 External stairways or ramps in lieu of fire-isolated exits [2019: D1.8]			X		Not applicable.
D2D14 Travel by non-fire-isolated stairways or ramps [2019: D1.9]			X		Not applicable.
NSW D2D15 Discharge from exits				X	(1) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
[2019: D1.10]					<p>(2) If a required exit leads to an open space, the path of travel to the road must have an unobstructed width throughout of not less than—</p> <ul style="list-style-type: none"> (a) the minimum width of the required exit; or (b) 1 m, <p>whichever is the greater.</p> <p>(3) 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—</p> <ul style="list-style-type: none"> (a) a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed-to-Satisfy Provisions of Part D4; or (b) except if the exit is from a Class 9a building, a stairway complying with the Deemed-to-Satisfy Provisions of the BCA. <p>(4) The discharge point of alternative exits must be located as far apart as practical.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D2D16 Horizontal exits [2019: D1.11]				X	<p>(1) Horizontal exits must not be counted as required exits between sole-occupancy units.</p> <p>(2) Horizontal exits must not comprise more than half of the required exits from any part of a storey divided by a fire wall.</p> <p>(3) Horizontal exits must have a clear area on the side of the wall to which occupants are evacuating, to accommodate the total number of persons (calculated under D2D18) served by the horizontal exit of not less than 0.5 m² per person.</p> <p>(4) Where a fire compartment is provided with only two exits, and one of those exits is a horizontal exit, the clear area required by (3) is to be of a size that accommodates all the occupants from the fire compartment being evacuated.</p> <p>(5) The clear area required by (4) must be connected to the horizontal exit by an unobstructed path that has at least the dimensions required for the horizontal exit and may include the area of the unobstructed path.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D2D17 Non-required stairways, ramps or escalators [2019: D1.12]			X		Not applicable.
NSW D2D18 Number of persons accommodated [2019: D1.13]			X		<p>For the purposes of the Deemed-to-Satisfy Provisions, the number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by—</p> <ul style="list-style-type: none"> (a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D2D18 according to the use of that part, excluding spaces set aside for— <ul style="list-style-type: none"> (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(b) reference to the seating capacity in an assembly building or room; or (c) any other suitable means of assessing its capacity.
D2D19 Measurement of distances [2019: D1.14]			X		Informational clause only.
D2D20 Method of measurement [2019: D1.15]			X		Informational clause only.
D2D21 Plant rooms, lift machine rooms and electricity network substations: Concession [2019: D1.16]			X		(1) A ladder may be used in lieu of a stairway to provide egress from— (a) a plant room with a floor area of not more than 100 m ² ; or (b) all but one point of egress from a plant room or a lift machine room with a floor area of not more than 200 m ² . (2) A ladder permitted under (1)— (a) may— (i) form part of an exit provided that in the case of a fire-isolated stairway it is contained within the shaft; or (ii) discharge within a storey in which case it must be considered as forming part of the path of travel; and (b) for a lift machine room, where access is provided from within a machine room to a secondary floor, a fixed rung type ladder complying with AS 1657 may be used, provided that— (i) the height between the floors is not more than 2800 mm; and (ii) the ladder is inclined at an angle to the horizontal not less than 65 degrees nor more than 75 degrees; and (iii) the distance between the front face of the ladder and any adjacent obstruction is not less than— (A) 960 mm, where the ladder is inclined 65 degrees to the horizontal; or (B) 760 mm, where the ladder is inclined 75 degrees to the horizontal; or (C) a distance that is determined by interpolating the values in (A) and (B), where the ladder is inclined at any angle between 65 degrees and 75 degrees to the horizontal; and (iv) a clear space not less than 600 mm exists between the foot of the ladder and any equipment.
D2D22 Access to lift pits [2019: D1.17]				X	Access to lift pits must— (a) where the pit depth is not more than 3 m, be through the lowest landing doors; or (b) where the pit depth is more than 3 m, be provided through an access doorway complying with the following: (i) In lieu of D2D7 to D2D11, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii).





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer. (iii) Access to the doorway must be by a stairway complying with AS 1657. (iv) In lieu of D3D26, doors fitted to the doorway must be— (A) of the horizontal sliding or outwards opening hinged type; and (B) self-closing and self-locking from the outside; and (C) marked on the landing side with the letters not less than 35 mm high: DANGER LIFTWELL – ENTRY OF UNAUTHORIZED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2D23 Egress from primary schools [2019: D1.18]			X		Not applicable.
Part D3 Construction of exits					
NSW D3D2 Application of Part [2019: NSW D2.1(c)]			X		(1) Except for— (a) D3D14, D3D15(a), D3D17, D3D18, D3D19, D3D20, D3D22(5), D3D22(6), D3D23 and D3D29, the Deemed-to-Satisfy Provisions of this Part do not apply to the internal parts of a sole-occupancy unit in a Class 2 building.
D3D3 Fire-isolated stairways and ramps [2019: D2.2]				X	A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed— (a) of non-combustible materials; and (b) so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans, Structural Engineering Plans & specification</i>
D3D4 Non-fire-isolated stairways and ramps [2019: D2.3]			X		Not applicable.
D3D5 Separation of rising and descending stair flights [2019: D2.4]				X	Compliance commentary: All walls and doors separating rising and descending stair flights are to comply with the provisions of this clause i.e. non-combustible construction and smoke proof in accordance with S11C2.
				X	BCA Requirements: If a stairway serving as an exit is required to be fire-isolated— (a) there must be no direct connection between—





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(i) a flight rising from a storey below the lowest level of access to a road or open space; and</p> <p>(ii) a flight descending from a storey above that level; and</p> <p>(b) any construction that separates or is common to the rising and descending flights must be—</p> <p>(i) non-combustible; and</p> <p>(ii) smoke proof in accordance with S11C2</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D6 Open access ramps and balconies [2019: D2.5]			X		Not applicable.
D3D7 Smoke lobbies [2019: D2.6]			X		Not applicable.
D3D8 Installations in exits and paths of travel [2019: D2.7]				X	<p>(1) Access to service shafts and services other than to fire-fighting 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>(2) An opening to any chute or duct intended to convey hot products of combustion from a boiler, incinerator, fireplace or the like, must not be located in any part of a required exit or any corridor, hallway, lobby or the like leading to a required exit.</p> <p>(3) Gas or other fuel services must not be installed in a required exit.</p> <p>(4) Except for in a fire-isolated exit specified in (1), services or equipment enclosed in accordance with (5) may be installed in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit, where that service or equipment comprises—</p> <p>(a) electricity meters, distribution boards or ducts; or</p> <p>(b) central telecommunications distribution boards or equipment; or</p> <p>(c) electrical motors or other motors serving equipment in the building.</p> <p>(5) An enclosure for the purposes of (4) must be suitably sealed against smoke spreading from the enclosure and be—</p> <p>(a) non-combustible construction; or</p> <p>(b) a fire-protective covering.</p> <p>(6) Electrical wiring may be installed in a fire-isolated exit if the wiring is associated with—</p> <p>(a) a lighting, detection, or pressurisation system serving the exit; or</p> <p>(b) a security, surveillance or management system serving the exit; or</p> <p>(c) an intercommunication system or an audible or visual alarm system in accordance with D3D27; or</p> <p>(d) the monitoring of hydrant or sprinkler isolating valves.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D3D9 Enclosure of space under stairs and ramps [2019: D2.8]				X	(1) Fire-isolated stairways and ramps — If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D3D10 Width of required stairways and ramps [2019: D2.9]			X		A required stairway or ramp that exceeds 2 m in width is counted as having a width of only 2 m unless it is divided by a handrail or barrier continuous between landings and each division has a width of not more than 2 m.
D3D11 Pedestrian ramps [2019: D2.10]				X	(1) A fire-isolated ramp may be substituted for a fire-isolated stairway if the construction enclosing the ramp and the width and ceiling height comply with the requirements for a fire-isolated stairway. (2) A ramp serving as a required exit must— (a) where the ramp is also serving as an accessible ramp under Part D4, be in accordance with AS 1428.1; or (b) in any other case, have a gradient not steeper than 1:8. (3) The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D3D12 Fire-isolated passageways [2019: D2.11]				X	(1) The enclosing construction of a fire-isolated passageway must have an FRL when tested for a fire outside the passageway in another part of the building of— (a) if the passageway discharges from a fire-isolated stairway or ramp — not less than that required for the stairway or ramp shaft; or (b) in any other case — not less than 60/60/60. (2) Notwithstanding (1)(b), the top construction of a fire-isolated passageway need not have an FRL if the walls of the fire-isolated passageway extend to the underside of— (a) a non-combustible roof covering; or (b) a ceiling having a resistance to the incipient spread of fire of not less than 60 minutes separating the roof space or ceiling space in all areas surrounding the passageway within the fire compartment. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D3D13 Roof as open space [2019: D2.12]				X	If an exit discharges to a roof of a building, the roof must— (a) have an FRL of not less than 120/120/120; and (b) 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. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification





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NSW D3D14 Goings and risers [2019: D2.13]				X	<p>(1) A stairway must have—</p> <ul style="list-style-type: none"> (a) not more than 18 and not less than 2 risers in each flight; and (b) going (G), riser (R) and quantity (2R + G) in accordance with Table D3D14, except as permitted by (2) and (3); and (c) constant goings and risers throughout each flight, except as permitted by (2) and (3), and the dimensions of goings (G) and risers (R) in accordance with (1)(b) are considered constant if the variation between— <ul style="list-style-type: none"> (i) adjacent risers, or between adjacent goings, is no greater than 5 mm; and (ii) the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm; and (d) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and (e) treads which have— <ul style="list-style-type: none"> (i) a surface with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or (ii) a nosing strip with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; and (f) in the case of a required stairway, no winders in lieu of a landing; and <p>(2) Where a stairway discharges to a sloping public walkway or public road—</p> <ul style="list-style-type: none"> (a) the riser (R) may be reduced to account for the slope of the walkway or road; and (b) the quantity (2R+G) may vary at that location. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D15 Landings [2019: D2.14]				X	<p>In a stairway—</p> <ul style="list-style-type: none"> (a) landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each flight and each landing must— <ul style="list-style-type: none"> (i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and (ii) have— <ul style="list-style-type: none"> (A) a surface with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or (B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586, where the edge leads to a flight below; and (b) in a Class 9a building— <ul style="list-style-type: none"> (i) the area of any landing must be sufficient to move a stretcher, 2 m long and 600 mm wide, at a gradient not more than the gradient of the stairs, with at least one end





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					<p>of the stretcher on the landing while changing direction between flights; or</p> <p>(ii) the stair must have a change of direction of 180°, and the landing a clear width of not less than 1.6 m and a clear length of not less than 2.7 m.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>NSW D3D16 Thresholds [2019: D2.15, NSW D2.15(d), (e)]</p>				X	<p>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—</p> <p>(a) in a building required to be accessible by Part D4, the doorway—</p> <p>(i) opens to a road or open space; and</p> <p>(ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or</p> <p>(b) In other cases—</p> <p>(i) the doorway opens to a road or open space, external stair landing or external balcony; and</p> <p>(ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>D3D17 Barriers to prevent falls [2019: D2.16(a), (b) and (c)]</p>				X	<p>(1) A continuous barrier must be provided along the side of—</p> <p>(a) a roof to which general access is provided; and</p> <p>(b) a stairway or ramp; and</p> <p>(c) a floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and</p> <p>(d) any delineated path of access to a building, if the trafficable surface is 1 m or more above the surface beneath.</p> <p>(2) The requirements of (1) do not apply to—</p> <p>(a) the perimeter of loading dock or the like; or</p> <p>(b) areas referred to in D3D23; or</p> <p>(c) a retaining wall unless the retaining wall forms part of, or is directly associated with a delineated path of access to a building from the road, or a delineated path of access between buildings; or</p> <p>(d) a barrier provided to an openable window covered by D3D29.</p> <p>(3) A barrier required by (1) must be constructed in accordance with D3D18, D3D19, D3D20 and, if a wire barrier is used, D3D21.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>NSW D3D18 Height of barriers [2019: Table D2.16a]</p>				X	<p>(1) The height of a barrier required by D3D17 must be not less than the following:</p> <p>(a) For stairways or ramps with a gradient of 1:20 or steeper — 865 mm.</p> <p>(b) For landings to a stair or ramp where the barrier is provided along the inside edge of the landing and does not exceed 500 mm in length — 865 mm.</p> <p>(c) For all other locations – 1m.</p>





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					<p>(2) For a barrier provided under (1) —</p> <p>(a) barrier heights are measured vertically from the surface beneath, except that for stairways the height must be measured above the nosing line of the stair treads; and</p> <p>(b) a transition zone may be incorporated where the barrier height changes from 865 mm on a stair flight or ramp to 1 m at a landing or floor.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D3D19 Openings in barriers [2019: Table D2.16a]</p>				X	<p>(1) Except where allowed by (2), openings in a required barrier must not allow a 125 mm sphere to pass through.</p> <p>(2) In a fire-isolated stairway, fire-isolated ramp or other area used primarily for emergency purposes, openings in a required barrier—</p> <p>(a) must not allow a 300 mm sphere to pass through; or</p> <p>(b) where rails are used—</p> <p>(i) a 150 mm sphere must not be able to pass through the opening between the nosing line of the stair treads and the rail or between the rail and the floor of the landing, balcony or the like; and</p> <p>(ii) the opening between rails must not be more than 460 mm.</p> <p>(3) For a barrier provided under (1), the maximum 125 mm barrier opening for a stairway, such as a non fire-isolated stairway, is measured above the nosing line of the stair treads.</p> <p>(4) Where a required barrier is fixed to the vertical face forming an edge of a landing, balcony, deck, stairway or the like, the opening formed between the barrier and the face must not exceed 40 mm.</p> <p>(5) For the purposes of (4), the opening is measured horizontally from the edge of the trafficable surface to the nearest internal face of the barrier.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D3D20 Barrier climbability [2019: Table D2.16a]</p>				X	<p>(1) A barrier required by D3D17, located on a floor more than 4 m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150 mm and 760 mm above the floor.</p> <p>(2) The requirements of (1) do not apply to—</p> <p>(a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, other than—</p> <p>(i) external stairways; and</p> <p>(ii) external ramps; and</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D3D21 Wire barriers [2019: D2.16(d)]</p>				X	<p>Where a required barrier is constructed of wire, it is deemed to meet the requirements of D3D19(1) if it is constructed in accordance with the following:</p> <p>(a) For horizontal wire systems—</p> <p>(i) when measured with a strain indicator, it must be in accordance with the tension values in Table D3D21a; or</p>





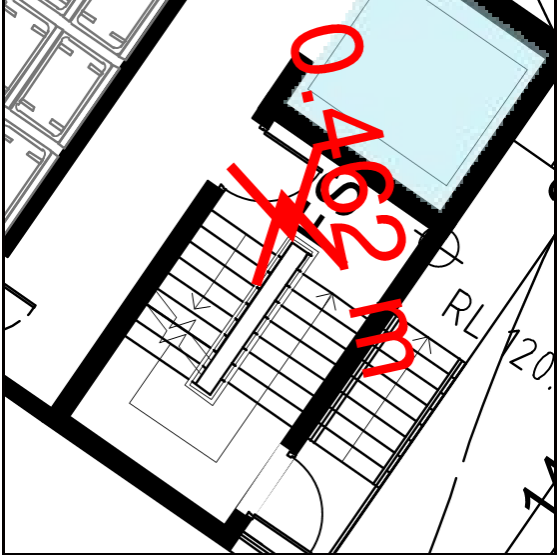
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(ii) must not exceed the maximum deflections in Table D3D21c.</p> <p>(b) For non-continuous vertical wire systems, when measured with a strain indicator, must be in accordance with the tension values in Table D3D21a (see Note 4).</p> <p>(c) For continuous vertical or continuous near vertical sloped wire systems—</p> <p>(i) must have wires of no more than 2.5 mm diameter with a lay of 7x7 or 7x19 construction; and</p> <p>(ii) changes in direction at support rails must pass around a pulley block without causing permanent deformation to the wire; and</p> <p>(iii) must have supporting rails, constructed with a spacing of not more than 900 mm, of a material that does not allow deflection that would decrease the tension of the wire under load; and</p> <p>(iv) when the wire tension is measured with a strain indicator, it must be in accordance with the tension values in Table D3D21b and measured in the furthest span from the tensioning device.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>D3D22 Handrails [2019: D2.17]</p>				<p>X</p>	<p>(1) Except for handrails referred to in D3D23, and subject to (2), handrails must—</p> <p>(a) be located along at least one side of the ramp or flight; and</p> <p>(b) be located along each side if the total width of the stairway or ramp is 2 m or more; and</p> <p>(c) in any other case, be fixed at a height of not less than 865 mm; and</p> <p>(d) be continuous between stair flight landings and have no obstruction on or above them that will tend to break a hand- hold; and</p> <p>(e) in a required exit serving an area required to be accessible, be designed and constructed to comply with clause 12 of AS 1428.1, except that clause 12(d) does not apply to a handrail required by (1)(c)(ii).</p> <p>(2) The height required by (1)(c) is measured above the nosings of stair treads and the floor surface of the ramp, landing or the like.</p> <p>(3) Handrails required to assist people with a disability must be provided in accordance with D4D4.</p> <p>(4) Handrails to a stairway or ramp within a sole-occupancy unit in a Class 2 building must—</p> <p>(a) be located along at least one side of the flight or ramp; and</p> <p>(b) be located along the full length of the flight or ramp, except in the case where a handrail is associated with a barrier, the handrail may terminate where the barrier terminates; and</p> <p>(c) have the top surface of the handrail not less than 865 mm vertically above the nosings of the stair treads or the floor surface of the ramp; and</p> <p>(d) have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions, or the like.</p>





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					<p>(5) The requirements of (4) do not apply to—</p> <ul style="list-style-type: none"> (a) handrails referred to in D3D23; or (b) a stairway or ramp providing a change in elevation of less than 1m; or (c) a landing; or (d) a winder where a newel post is installed to provide a handhold. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D3D23 Fixed platforms, walkways, stairways and ladders [2019: D2.18]</p>				X	<p>A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier attached thereto may comply with AS 1657 in lieu of D3D14, D3D16, D3D17, D3D18, D3D19, D3D20, D3D21 and D3D22 if it only serves—</p> <ul style="list-style-type: none"> (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or (b) non-habitable rooms, such as attics, storerooms and the like that are not used on a frequent or daily basis in the internal parts of a sole-occupancy unit in a Class 2 building. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>NSW D3D24 Doorways and doors [2019: D2.19]</p>				X	<p>(1) A doorway serving as a required exit or forming part of a required exit—</p> <ul style="list-style-type: none"> (a) must not be fitted with a roller shutter or tilt-up door unless— <ul style="list-style-type: none"> (i) it serves a Class 6, 7 or 8 building or part with a floor area not more than 200 m²; and (ii) the doorway is the only required exit from the building or part; and (iii) it is held in the open position while the building or part is lawfully occupied; and (b) must not be fitted with a sliding door unless— <ul style="list-style-type: none"> (i) it leads directly to a road or open space; and (ii) the door is able to be opened manually under a force of not more than 110 N; and (c) if fitted with a door which is power-operated— <ul style="list-style-type: none"> (i) it must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source; and (ii) if it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door; and <p>(2) A power-operated door in a path of travel to a required exit, must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D3D25 Swinging doors [2019: D2.20]</p>		X			<p>DTS Non-compliance:</p> <p>There are various areas where the swinging doors leading into the fire-isolated stairways encroach more than 500mm onto the required width of the stairway. Typical example shown below:</p>



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					 <p>This non-compliance was identified in the following areas:</p> <ul style="list-style-type: none"> • Building A: Throughout both fire stairways. • Building B: Throughout the northern fire stairways. • Building C: Throughout the northern fire stairways. • Building D: Throughout both fire stairways. <p>X BCA Requirements:</p> <p>(1) A swinging door in a required exit or forming part of a required exit—</p> <p>(a) must not encroach—</p> <p>(i) at any part of its swing by more than 500 mm on the required width (including any landings) of a required stairway, ramp or passageway if it is likely to impede the path of travel of the people already using the exit; and</p> <p>(ii) when fully open, by more than 100 mm on the required width of the required exit; and</p> <p>(b) must swing in the direction of egress unless—</p> <p>(i) it serves a building or part with a floor area not more than 200m², it is the only required exit from the building or part and it is fitted with a device for holding it in the open position; or</p> <p>(ii) it serves a sanitary compartment or airlock (in which case it may swing in either direction); and</p> <p>(c) must not otherwise impede the path or direction of egress.</p> <p>(2) The measurement of encroachment referred to in (1)(a) in each case is to include door handles or other furniture or attachments to the door.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW D3D26 Operation of latch [2019: D2.21]				X	(1) A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by—



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					<p>(a) a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D4—</p> <ul style="list-style-type: none"> (i) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and (ii) have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35 mm and not more than 45 mm; or <p>(b) a single hand pushing action on a single device which is located between 900 mm and 1.2 m from the floor.</p> <p>(2) Where the latch operation device referred to in (1)(b) is not located on the door leaf itself—</p> <ul style="list-style-type: none"> (a) manual controls to power-operated doors must be at least 25 mm wide, proud of the surrounding surface and located— <ul style="list-style-type: none"> (i) not less than 500 mm from an internal corner; and (ii) for a hinged door, between 1 m and 2 m from the door leaf in any position; and (iii) for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position; and (b) braille and tactile signage complying with S15C3 and S15C6 must identify the latch operation device. <p>(3) The requirements of (1) and (2) do not apply to a door that—</p> <ul style="list-style-type: none"> (a) serves a vault, strong-room, sanitary compartment, or the like; or (b) serves only, or is within— <ul style="list-style-type: none"> (i) a sole-occupancy unit in a Class 2 building; or (ii) a sole-occupancy unit with a floor area not more than 200 m² in a Class 5, 6 or 7 building; or (iii) a space which is otherwise inaccessible to persons at all times when the door is locked; or (c) is fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system complying with Specification 17 or smoke, or any other detector system deemed suitable in accordance with AS 1670.1 installed throughout the building, and is readily openable when unlocked. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>D3D27 Re-entry from fire-isolated exits [2019: D2.22]</p>				<p>X</p>	<p>(1) Doors of a fire-isolated exit must not be locked from the inside as follows:</p> <ul style="list-style-type: none"> (a) In a fire-isolated exit serving any storey above an effective height of 25 m, throughout the exit. <p>(2) The requirements of (1)(a) do not apply to a door fitted with a fail-safe device that automatically unlocks the door upon the activation of a fire alarm and—</p> <ul style="list-style-type: none"> (a) on at least every fourth storey, the doors are not able to be locked and a sign is fixed on such doors stating that re-entry is available; or (b) an intercommunication system, or an audible or visual alarm system, operated from within the enclosure is provided near the





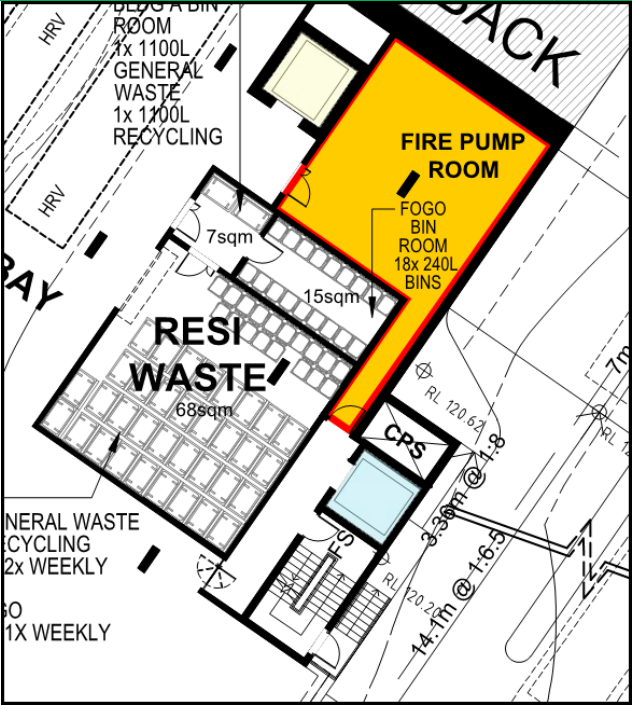
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>doors and a sign is fixed adjacent to such doors explaining its purpose and method of operation.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D28 Signs on doors [2019: D2.23]				X	<p>(1) 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, in accordance with (2)—</p> <p>(a) a required—</p> <p>(i) fire door providing direct access to a fire-isolated exit, except a door providing direct egress from a sole-occupancy unit in a Class 2 building; and</p> <p>(ii) smoke door; and</p> <p>(b) any door which is a—</p> <p>(i) fire door forming part of a horizontal exit; and</p> <p>(ii) smoke door that swings in both directions; and</p> <p>(iii) door leading from a fire isolated exit to a road or open space.</p> <p>(2) A sign required by (1)(a) must be fixed on the side of the door that faces a person seeking egress and, if the door is fitted with a device for holding it in the open position, either a sign must be fixed on the wall adjacent to the doorway, or signs must be fixed to both sides of the door.</p> <p>(3) A sign required by (1)(b) must be fixed on each side of the door.</p> <p>(4) A sign referred to in (1) must be in capital letters not less than 20 mm high in a colour contrasting with the background and state the following:</p> <p>(a) For an automatic door held open by an automatic hold-open device—</p> <p style="text-align: center;">FIRE SAFETY DOOR — DO NOT OBSTRUCT</p> <p>(a) For a self-closing door—</p> <p style="text-align: center;">FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN</p> <p>(a) For a door discharging from a fire-isolated exit—</p> <p style="text-align: center;">FIRE SAFETY DOOR — DO NOT OBSTRUCT</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D29 Protection of openable windows [2019: D2.24]				X	<p>(1) A window opening must be provided with protection, if the floor below the window is 2 m or more above the surface beneath in—</p> <p>(a) a bedroom in a Class 2 building.</p> <p>(2) Where the lowest level of the window opening is less than 1.7 m above the floor, a window opening covered by (1) must comply with the following:</p> <p>(a) The openable portion of the window must be protected with—</p> <p>(i) a device capable of restricting the window opening; or</p> <p>(ii) a screen with secure fittings.</p> <p>(b) A device or screen required by (a) must—</p> <p>(i) not permit a 125 mm sphere to pass through the window opening or screen; and</p> <p>(ii) resist an outward horizontal action of 250 N against the—</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(A) window restrained by a device; or (B) screen protecting the opening; and (iii) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden.</p> <p>(3) A barrier with a height not less than 865 mm above the floor is required to an openable window— (a) in addition to window protection, when a child resistant release mechanism is required by (2)(b)(iii); and (b) where the floor below the window is 4 m or more above the surface beneath if the window is not covered by (1).</p> <p>(4) A barrier covered by (3) except for (5) must not— (a) permit a 125 mm sphere to pass through it; and (b) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing.</p> <p>(5) A barrier required by (3) to an openable window in— (a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, must not permit a 300 mm sphere to pass through it.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3D30 Timber stairways: Concession [2019: D2.25]			X		Not applicable.
NSW D3D31 Doors in paths of travel to an entertainment venue [2019: NSW D2.101]			X		Not applicable.
Part D4 Access for people with a disability – Refer to separate access consultant’s report					
Section E Services and equipment					
Part E1 Fire fighting equipment					
E1D2 Fire hydrants [2019: E1.3]		X			<p>DTS Non-compliance:</p> <p>Clause 6.11.2 of AS2419.1-2021 titled ‘internal pump rooms’ requires that the pumphouse shall have a door leading directly to:</p> <ul style="list-style-type: none"> • A road or open space; or • An airlock or smoke lobby that leads to a fire-isolated passageway or stair, leading to a road or open space. <p>The pump room provided on the lower ground level fails to comply with this clause.</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
		X			 <p>DTS Non-compliance: Clause 7.3.1 of AS2419.1-2021 requires the hydrant booster to be with sight of the principal pedestrian entrance of the building. This clause is intended for buildings within a single principal pedestrian entrance. As the subject building has multiple principal pedestrian entrances, this will need to be addressed via a Performance-Based Solution.</p> <p>BCA Requirements:</p> <p>(1) A fire hydrant system must be provided to serve a building—</p> <ul style="list-style-type: none"> (a) having a total floor area greater than 500 m²; and (b) where a fire brigade station is— <ul style="list-style-type: none"> (i) no more than 50 km from the building as measured along roads; and (ii) equipped with equipment capable of utilising a fire hydrant. <p>(2) The fire hydrant system must be installed in accordance with AS 2419.1.</p> <p>(3) Where internal fire hydrants are provided, they must serve only the storey on which they are located except that a sole-occupancy unit—</p> <ul style="list-style-type: none"> (a) in a Class 2 building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit; or (b) of not more than 2 storeys in a Class 5, 6 or 7 building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit provided the fire hydrant can provide coverage to the whole of the sole-occupancy unit. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Relevant fire safety systems are required to be designed and</p>
				X	



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<i>endorsed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.</i>
E1D3 Fire hose reels [2019: E1.4]				X	<p>(1) E1D3 does not apply to—</p> <p>(a) a Class 2 or 5 building.</p> <p>(2) A fire hose reel system must be provided—</p> <p>(a) to serve the whole building where one or more internal fire hydrants are installed; or</p> <p>(b) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m².</p> <p>(3) The fire hose reel system must—</p> <p>(a) have fire hose reels installed in accordance with AS 2441; and</p> <p>(b) provide fire hose reels to serve only the storey at which they are located, except a sole-occupancy unit of not more than 2 storeys in a Class 6 or 7 building may be served by a single fire hose reel located at the level of egress from that sole-occupancy unit provided the fire hose reel can provide coverage to the whole of the sole-occupancy unit.</p> <p>(4) Fire hose reels must be located internally, externally or in combination, to achieve the system coverage specified in AS 2441.</p> <p>(5) In achieving system coverage, one or a combination of the following criteria for individual internally located fire hose reels must be met in determining the layout of any fire hose reel system:</p> <p>(a) Fire hose reels must be located adjacent to an internal fire hydrant (other than one within a fire-isolated exit), except that a fire hose reel need not be located adjacent to every fire hydrant, provided system coverage can be achieved.</p> <p>(b) Fire hose reels must be located within 4 m of an exit, except that a fire hose reel need not be located adjacent to every exit, provided system coverage can be achieved.</p> <p>(c) Where system coverage is not achieved by compliance with (a) and (b), additional fire hose reels may be located in paths of travel to an exit to achieve the required coverage.</p> <p>(6) Fire hose reels must be located so that the fire hose will not need to pass through doorways fitted with fire or smoke doors, except—</p> <p>(a) doorways in walls referred to in C3D13 or C3D14 separating equipment or electrical supply systems; and</p> <p>(b) doorway openings to shafts referred to in C4D14.</p> <p>(7) Where the normal water supply cannot achieve the flow and pressures required by AS 2441, or is unreliable—</p> <p>(a) a pump; or</p> <p>(b) water storage facility; or</p> <p>(c) both a pump and water storage facility must be installed to provide the minimum flow and pressures required by clause 6.1 of AS 2441.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Relevant fire safety systems are required to be designed and endorsed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.</i></p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
E1D4 Sprinklers [2019: E1.5]		X		X	<p>Further information required: S17C6 details that sprinkler alarm valves must be located in a secure room or enclosure which has direct egress to a road or open space. The room/enclosure is to be detailed on the drawings.</p> <p>DTS Non-compliance: S17C7 details that a required sprinkler system in a building greater than 25m in effective height must be provided with a dual water supply except that a secondary water supply storage capacity of 25,000 litres may be used if the storage tank is located at the topmost storey of the building. The proposed storage tank is proposed on the ground floor.</p> <p>BCA Requirements: A sprinkler system must— (a) be installed in a building or part of a building when required by E1D5 to E1D13 as applicable; and (b) comply with Specification 17 as applicable. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Relevant fire safety systems are required to be designed and endorsed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.</p>
E1D5 Where sprinklers are required: all classifications [2019: Table E1.5]				X	<p>Sprinklers are required throughout all buildings if any part of the building has an effective height of more than 25 m. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E1D6 Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings [2019: Table E1.5]			X		Not applicable.
E1D7 Where sprinklers are required: Class 3 building used as a residential care building [2019: Table E1.5]			X		Not applicable.
E1D8 Where sprinklers are required: Class 6 building			X		Not applicable.





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[2019: Table E1.5]					
E1D9 Where sprinklers are required: Class 7a building, other than an open-deck carpark [2019: Table E1.5]				X	In a Class 7a building, sprinklers are required in fire compartments where more than 40 vehicles are accommodated. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E1D10 Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings [2019: Table E1.5]			X		Not applicable.
E1D11 Where sprinklers are required: Class 9b buildings [2019: Table E1.5]			X		Not applicable.
E1D12 Where sprinklers are required: additional requirements [2019: Table E1.5]			X		Not applicable.
E1D13 Where sprinklers are required: occupancies of excessive hazard [2019: Table E1.5 (Note 4)]			X		Not applicable.
E1D14 Portable fire extinguishers [2019: E1.6 and Table E1.6]				X	(1) Portable fire extinguishers must be— (a) provided as listed in (3) and (4); and (b) for a Class 2 or 5 building, provided— (i) to serve the whole Class 2 or 5 building where one or more internal fire hydrants are installed; or (ii) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m ² , and for the purposes of this clause, a sole-occupancy





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					<p>unit in a Class 2 or 3 building or Class 4 part of a building is considered to be a fire compartment; and</p> <p>(c) subject to (2), selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444.</p> <p>(2) Portable fire extinguishers provided in a Class 2 building must be—</p> <p>(a) an ABE type fire extinguisher; and</p> <p>(b) a minimum size of 2.5 kg; and</p> <p>(c) distributed outside a sole-occupancy unit—</p> <p>(i) to serve only the storey at which they are located; and</p> <p>(ii) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m.</p> <p>(3) In Class 2 to 9 buildings, portable fire extinguishers must be provided as follows:</p> <p>(a) To cover Class AE or E fire risks associated with emergency services switchboards.</p> <p>(b) To cover Class F fire risks involving cooking oils and fats in kitchens.</p> <p>(c) To cover Class A fire risks in normally occupied fire compartments less than 500 m² not provided with fire hose reels.</p> <p>(d) To cover Class A fire risks associated with a Class 2 or 5 building.</p> <p>(4) For the purposes of (3):</p> <p>(a) Fire risks are defined in accordance with AS 2444.</p> <p>(b) An emergency services switchboard is one which sustains emergency equipment operating in the emergency mode.</p> <p>(c) Additional extinguishers may be required to cover fire risks in relation to special hazards provided for in E1D17.</p> <p>(d) The fire risks in a Class 2 building must include risks within any sole-occupancy units, however portable fire extinguishers are not required to be located within a sole-occupancy unit.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>E1D15 Fire control centres [2019: E1.8]</p>				X	<p>Further information required:</p> <p>The drawings are to detail the proposed location of the fire control room ensuring compliance with Specification 19. The following specific provisions should be considered as part of the DA drawings design:</p> <p>S19C4: A fire control centre must be so located in a building that egress from any part of its floor, to a road or open space, does not involve changes in level which in aggregate exceed 300 mm.</p> <p>S19C7(a): A fire control centre in a building more than 50 m in effective height must be in a separate room where—</p> <p>(a) the enclosing construction is of concrete, masonry or the like, sufficiently impact resistant to withstand the impact of any likely falling debris, and with an FRL of not less than 120/120/120.</p>





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				X	<p>S19C9(2): The fire control room must be accessible via two paths of travel—</p> <ul style="list-style-type: none"> (a) one from the front entrance of the building; and (b) one direct from a public place or fire-isolated passageway which leads to a public place and has a door with an FRL of not less than –/120/30 <p>S19C10(3): A fire control room must—</p> <ul style="list-style-type: none"> (a) have a floor area of not less than 10 m² and the length of any internal side must be not less than 2.5 m; and (b) if only the minimum prescribed equipment is installed — have a net floor area of not less than 8 m² with a clear space of not less than 1.5 m² in front of the Fire Indicator Panel; and (c) if additional equipment is installed — have an additional area of not less than 2 m² net floor area for each additional facility and a clear space of not less than 1.5 m² in front of each additional control or indicator panel; and (d) be constructed such that the area required for any path of travel through the room to other areas is provided in addition to the requirements (b) and (c). <p>S19C10(1): A fire control room must be ventilated by—</p> <ul style="list-style-type: none"> (a) natural ventilation from a window or doorway in an external wall of the building which opens directly into the fire control room from a road or open space; or (b) a pressurisation system that only serves the fire control room, and— <ul style="list-style-type: none"> (i) is installed in accordance with AS 1668.1 as though the room is a fire-isolated stairway; and (ii) is activated automatically by operation of the fire alarm, or sprinkler system complying with Specification 17, installed in the building and manually by an over-riding control in the room; and (iii) provides a flow of fresh air through the room of not less than 30 air changes per hour when the system is operating and any door to the room is open; and (iv) has fans, motors and ductwork that form part of the system but not contained within the fire control room protected by enclosing construction with an FRL of not less than 120/120/120; and (v) has any electrical supply to the fire control room or equipment necessary for its operation connected to the supply side of the main disconnection switch for the building. <p>BCA Requirements:</p> <p>A fire control centre facility in accordance with Specification 19 must be provided for—</p> <ul style="list-style-type: none"> (a) a building with an effective height of more than 25 m. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E1D16 Fire precautions during construction			X		<p>In a building under construction—</p> <ul style="list-style-type: none"> (a) not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit; and





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[2019: E1.9]					<p>(b) after the building has reached an effective height of 12 m—</p> <p>(i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storeys; and</p> <p>(ii) any required booster connections must be installed.</p>
E1D17 Provision for special hazards [2019: E1.10]				X	<p>Suitable additional provision must be made if special problems of fighting fire could arise because of—</p> <p>(a) the nature or quantity of materials stored, displayed or used in a building or on the allotment; or</p> <p>(b) the location of the building in relation to a water supply for fire-fighting purposes.</p> <p><u>Note: Electric Vehicle (EV) charging stations are deemed to be a special hazard and will require assessment by a suitably qualified fire engineer against this clause.</u></p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part E2 Smoke hazard management					
E2D2 Application of Part [2019: E2.1]			X		<p>(1) The smoke exhaust and smoke-and-heat vent provisions of this Part do not apply to any area not used by occupants for an extended period of time such as a storeroom with a floor area less than 30 m², sanitary compartment, plant room or the like.</p>
E2D3 General Requirements [2019: E2.2]				X	<p>(1) An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must, subject to (2), be designed and installed—</p> <p>(a) to operate as a smoke control system in accordance with AS 1668.1; or</p> <p>(b) such that it—</p> <p>(i) incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and</p> <p>(ii) is arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1.</p> <p>(2) For the purposes of (1), each sole-occupancy unit in a Class 2 building is treated as a separate fire compartment.</p> <p>(3) Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with these Sections of the Standard.</p> <p>(4) A smoke detection system must be installed in accordance with S20C6 to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire-isolated exits.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





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E2D4 Fire-isolated exits [2019: Table E2.2a]			X	X	<p>Compliance commentary:</p> <p>The fire-isolated stairways providing egress from the basement levels to the level of egress are not required to be provided with an automatic air pressurisation system as there are not more than 2 below ground storeys, not counted in the rise in storeys (Lower ground floor and upwards from there are counted in the rise in storeys).</p> <p>BCA Requirements:</p> <p>(1) A part of a building listed in (2) must be provided with— (a) an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1.</p> <p>(2) The requirements of (1) apply to— (a) a required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp serving— (i) any storey above an effective height of 25 m; or (ii) more than 2 below ground storeys, not counted in the rise in storeys in accordance with C2D3; and</p> <p>(3) An automatic air pressurisation system for a fire-isolated exit must serve the entire exit.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E2D5 Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building [2019: Table E2.2a]				X	<p>An automatic smoke detection and alarm system complying with Specification 20 must be provided to the following: (a) A Class 2 building which is more than 25 m in effective height.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E2D6 Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings [2019: Table E2.2a]				X	<p>(1) A Class 5, 6 or 7b building or part of a building must be provided with a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building is more than 25 m in effective height.</p> <p>(2) For the purposes of (1), 'vertically separated fire compartments' are fire compartments above and below each other, and not fire compartments within the same storey.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E2D7 Buildings more than 25 m in effective height: Class 9a buildings [2019: Table E2.2a]			X		Not applicable.
E2D8 Buildings not more than 25 m in			X		Not applicable.





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effective height: Class 2 and 3 buildings and Class 4 part of a building [2019: Table E2.2a]					
E2D9 Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings [2019: Table E2.2a]			X		Not applicable.
NSW E2D10 Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4 [2019: NSW Table E2.2a]			X		Not applicable.
E2D11 Buildings not more than 25 m in effective height: Class 9a and 9c buildings [2019: Table E2.2a]			X		Not applicable.
E2D12 Class 7a buildings [2019: Table E2.2a]				X	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. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E2D13 Basements (other than Class 7a buildings) [2019: Table E2.2a]			X		Not applicable.
E2D14 Class 6 buildings – in fire compartments more than 2000 m ² : Class 6 building (not containing an			X		Not applicable.





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enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit) [2019: Table E2.2b]					
E2D15 Class 6 buildings – in fire compartments more than 2000 m ² : Class 6 building (containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit) [2019: Table E2.2b]			X		Not applicable.
NSW E2D16 Class 9b – assembly buildings: all [2019: NSW Table E2.2b]			X		Not applicable.
NSW E2D17 Class 9b – assembly buildings: night clubs, discotheques and the like [2019: NSW Table E2.2b]			X		Not applicable.
NSW E2D18 Class 9b – assembly buildings: exhibition halls, museums and art galleries [2019: NSW Table E2.2b]			X		Not applicable.
NSW E2D19 Class 9b – assembly buildings: other assembly buildings (not			X		Not applicable.





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listed in NSW E2D16 to E2D18) [2019: NSW Table E.2.2b]					
NSW E2D20 Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19)			X		Not applicable.
E2D21 Provision for special hazards [2019: E2.3]			X		Additional smoke hazard management measures may be necessary due to the— (a) special characteristics of the building; or (b) special function or use of the building; or (c) special type or quantity of materials stored, displayed or used in a building; or (d) special mix of classifications within a building or fire compartment, which are not addressed in E2D4 to E2D20. <u>Note: Electric Vehicle (EV) charging stations are deemed to be a special hazard and will require assessment by a suitably qualified fire engineer against this clause.</u>
Part E3 Lift Installations					
E3D2 Lift installations [2019: E3.1]				X	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3D3 Stretcher facility in lifts [2019: E3.2]	X				(1) A stretcher facility in accordance with (2) must be provided— (a) in at least one emergency lift required by E3D5. (2) A stretcher facility 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.
E3D4 Warning against use of lifts in fire [2019: E3.3]				X	(1) A warning sign must be displayed where it can be readily seen near every call button for a passenger lift or group of lifts throughout a building. (2) The requirements of (1) do not apply to a small lift such as a dumb-waiter or the like that is for the transport of goods only. (3) Each warning sign required by (1) must comply with the details and dimensions of Figure E3D4 and consist of— (a) incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall; or (b) letters incised or inlaid directly into the surface of the material forming the wall. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3D5 Emergency lifts				X	(1) At least one emergency lift complying with (4) must be installed in— (a) a building which has an effective height of more than 25 m.





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[2019: E3.4]					<p>(2) An emergency lift may be combined with a passenger lift and must serve those storeys served by the passenger lift so that all storeys of the building served by passenger lifts are served by at least one emergency lift.</p> <p>(3) Where two or more passenger lifts are installed and serve the same storeys—</p> <ul style="list-style-type: none"> (a) at least two emergency lifts must be provided to serve those storeys; and (b) if located within different shafts, at least one emergency lift must be provided in each shaft. <p>(4) An emergency lift must—</p> <ul style="list-style-type: none"> (a) be contained within a fire-resisting shaft in accordance with C3D11; and (b) if the building has an effective height of more than 75 m, have a rating of at least— <ul style="list-style-type: none"> (i) 600 kg if not provided with a stretcher facility; or (ii) 900 kg if provided with a stretcher facility. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E3D6 Landings [2019: E3.5]				X	<p>Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Parts D2, D3 and D4.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E3D7 Passenger lift types and their limitations [2019: E3.6, Table E3.6a, Table E3.6b]			X		Refer to separate access consultant's report
E3D8 Accessible features required by passenger lifts [2019: Table E3.6a, Table E3.6b]			X		Refer to separate access consultant's report
E3D9 Fire service controls [2019: E3.7]				X	<p>Where lifts serve any storey above an effective height of 12 m, the following must be provided:</p> <ul style="list-style-type: none"> (a) A fire service recall control switch complying with E3D11 for— <ul style="list-style-type: none"> (i) a group of lifts; or (ii) a single lift not in a group that serves the storey. (b) A lift car fire service drive control switch complying with E3D12 for every lift. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E3D10 Residential care buildings			X		Not applicable.





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[2019: E3.8]					
<p>E3D11 Fire service recall control switch [2019: E3.9]</p>				X	<p>(1) Each group of lifts must be provided with one fire service recall control switch required by E3D9 that activates the fire service recall operation at (6).</p> <p>(2) The switch required by (1) must—</p> <ul style="list-style-type: none"> (a) be located at the landing nominated by the appropriate authority; and (b) be labelled “FIRE SERVICE” in indelible white lettering on a red background; and (c) have two positions with an “OFF” and an “ON” position identified; and (d) be operable only by the use of a key that is removable in either the “OFF” position or the “ON” position. <p>(3) Adhesive labels must not be used for compliance with (2)(b) and (c).</p> <p>(4) The key in (2)(d) must be able to turn all fire service recall control switches in the building and must have a different key combination to other keys used for lifts in the building.</p> <p>(5) The fire service recall operation must be activated by—</p> <ul style="list-style-type: none"> (a) switching the fire service recall control switch in (1) to “ON”; or (b) a signal from a fire management system approved by the appropriate authority. <p>(6) The activation of the fire service recall operation at (5) must—</p> <ul style="list-style-type: none"> (a) cancel all registered car and landing calls; and (b) inactivate all door reopening devices that may be affected by smoke; and (c) ensure lift cars travelling toward the nominated floor continue to the nominated floor without stopping; and (d) ensure lift cars travelling away from the nominated floor stop at or before the next available floor without opening the doors (either automatically or by the door open button), reverse direction and travel without stopping to the nominated floor; and (e) for lifts stopped at a floor other than the nominated floor, close the doors and travel without stopping to the nominated floor; and (f) ensure that lifts stay at the nominated floor with doors open; and (g) permit all lifts to return to normal service if the fire service recall control switch at (1) is switched to the “OFF” position during or after the fire service recall operation. <p>(7) The requirements of (6) do not apply to lifts on inspection service or when the lift car fire service control switch required by E3D12 is in the “ON” position.</p> <p>(8) Lifts having manual controls must signal an alert to the lift for the lift to return to the nominated floor containing the recall switch that activated the signal.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>E3D12 Lift car fire service drive control switch</p>				X	<p>(1) The lift car fire service drive control switch required by E3D9 must be activated from within the lift car.</p> <p>(2) The switch must—</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
[2019: E3.10]					<p>(a) be located between 600 mm and 1500 mm above the lift car floor; and</p> <p>(b) be labelled “FIRE SERVICE” by indelible white lettering on a red background; and</p> <p>(c) have two positions with an “OFF” and an “ON” position identified; and</p> <p>(d) operate only by the use of a key that is removable in either the “OFF” position or the “ON” position.</p> <p>(3) Adhesive labels must not be used for compliance with (2)(b) or (c).</p> <p>(4) When the lift car fire service drive control switch at (1) is turned to the “ON” position, the lift must—</p> <p>(a) not respond to the fire service recall control switch; and</p> <p>(b) cancel all registered lift car and landing calls; and</p> <p>(c) override all lift car call access control systems; and</p> <p>(d) inactivate all door reopening devices that may be affected by smoke; and</p> <p>(e) allow the registration of lift car call by lift car call buttons, however the lift doors must not close in response to the registration of lift car calls; and</p> <p>(f) activate door closing by constant pressure being applied on the “door close” button unless the button is released before the doors are fully closed, in which case the doors must reopen and any registered lift car calls must be cancelled; and</p> <p>(g) when the doors are closed, move the lift in response to registered lift car calls while allowing additional lift car calls to also be registered; and</p> <p>(h) travel to the first possible floor in response to registered lift car calls and cancel all registered lift car calls after the lift stops; and</p> <p>(i) ensure doors do not open automatically, rather by constant pressure being applied on the “door open” button unless the button is released before the doors are fully open, in which case the doors must re-close.</p> <p>(5) The requirements of (4)(a) to (i) do not apply to a lift operating on inspection service.</p> <p>(6) A multi-deck lift installation must have systems in place that—</p> <p>(a) are able to communicate to the fire officer that the fire service drive control switch will not operate until all decks have been cleared of passengers; and</p> <p>(b) ensure there is an appropriate method of clearing all deck landings of passengers; and</p> <p>(c) maintain all doors to deck landings not containing the fire service control switch closed and inoperative while the lift is on fire service drive control.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
Part E4 Visibility in an emergency, exit signs and warning systems					
E4D1 Deemed-to-Satisfy Provisions [2019: E4.0]			X		<p>(1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements E4P1 to E4P3 are satisfied by complying with—</p> <p>(a) E4D2 to E4D9; and</p> <p>(b) for a building containing an occupiable outdoor area, Part G6.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.
E4D2 Emergency lighting requirements [2019: E4.2]				X	<p>An emergency lighting system must be installed—</p> <ul style="list-style-type: none"> (a) in every fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; and (b) in every storey of a Class 5, 6 or 7 building where the storey has an area more than 300 m²— <ul style="list-style-type: none"> (i) in every passageway, corridor, hallway, or the like, that is part of the path of travel to an exit; and (ii) in any room having a floor area more than 100 m² that does not open to a corridor or space that has emergency lighting or to a road or open space; and (iii) in any room having a floor area more than 300 m²; and (c) in every passageway, corridor, hallway, or the like, having a length of more than 6 m from the entrance doorway of any sole-occupancy unit in a Class 2 building to the nearest doorway opening directly to— <ul style="list-style-type: none"> (i) a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or (ii) a road or open space; and (d) in a sole-occupancy unit in a Class 5 or 6 building if— <ul style="list-style-type: none"> (i) the floor area of the unit is more than 300 m²; and (ii) an exit from the unit does not open to a road or open space leading directly to a road or open space; and (e) in every room or space to which there is public access in every storey in a Class 6 building if— <ul style="list-style-type: none"> (i) the floor area in that storey is more than 300 m²; or (ii) any point on the floor of that storey is more than 20 m from the nearest doorway leading directly to a stairway, ramp, passageway, road or open space; or (iii) the storey provides a path of travel from any other storey required by (i) or (ii) to have emergency lighting; and (f) in every required fire control centre. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E4D3 Measurement of distance [2019: E4.3]			X		Distances, other than vertical rise, must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.
E4D4 Design and operation of emergency lighting [2019: E4.4]				X	<p>Every required emergency lighting system must comply with AS/NZS 2293.1.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E4D5 Exit signs				X	An exit sign must be clearly visible to persons approaching the exit, and must be installed on, above or adjacent to each—





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
[2019: E4.5]					<p>(a) door providing direct egress from a storey to—</p> <p>(i) an enclosed stairway, passageway or ramp serving as a required exit; and</p> <p>(b) door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and</p> <p>(c) horizontal exit; and</p> <p>(d) door serving as, or forming part of, a required exit in a storey required to be provided with emergency lighting in accordance with E4D2.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW E4D6 Direction signs [2019: NSW E4.6]				X	<p>If an exit is not readily apparent to persons occupying or visiting the building, then exit signs must be installed—</p> <p>(a) in appropriate positions in corridors, hallways, lobbies, foyers, auditoria, and the like, indicating the direction to a required exit.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4D7 Class 2 and 3 buildings and Class 4 parts: exemptions [2019: E4.7]			X		<p>E4D5 does not apply to—</p> <p>(a) a Class 2 building in which every door referred to is clearly and legibly labelled on the side remote from the exit or balcony—</p> <p>(i) with the word “EXIT” in capital letters 25 mm high in a colour contrasting with that of the background; or</p> <p>(ii) by some other suitable method; and</p> <p>(b) an entrance door of a sole-occupancy unit in a Class 2 building.</p>
E4D8 Design and operation of exit signs [2019: E4.8]				X	<p>Every required exit sign must—</p> <p>(a) comply with—</p> <p>(i) AS/NZS 2293.1; or</p> <p>(ii) for a photoluminescent exit sign, Specification 25; and</p> <p>(b) be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4D9 Emergency warning and intercom systems [2019: E4.9]				X	<p>An emergency warning and intercom system complying, where applicable, with AS 1670.4 must be installed—</p> <p>(a) in a building with an effective height of more than 25 m.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Section F Health and Amenity					
Part F1 External waterproofing, rainwater management and rising damp					
F1D2 Application of Part [New for 2022]			X		<p>(1) F1D4 and F1D5 do not apply to a roof with a covering complying with F3D2(a) to (d).</p> <p>(2) F1D3 to F1D5 do not apply to a balcony, podium or similar horizontal surface part of a building—</p> <p>(a) where the flooring is of timber decking or other perforated flooring; or</p> <p>(b) which is located directly above ground.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
F1D3 Stormwater Drainage [2019: F1.1]				X	Stormwater drainage must be designed and constructed in accordance with AS/NZS 3500.3. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1D4 Exposed Joints [New for 2022]				X	Exposed joints in the drainage surface on a roof, balcony, podium, or similar horizontal surface part of a building must— (a) be protected in accordance with Section 2.9 of AS 4654.2; and (b) not be located beneath or run through a planter box, water feature or similar part of the building. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1D5 External waterproofing membranes [2019: F1.4]				X	A roof, balcony, podium, or similar horizontal surface part of a building must be provided with a waterproofing membrane— (a) consisting of materials complying with AS 4654.1; and (b) designed and installed in accordance with AS 4654.2. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1D6 Damp-proofing [2019: F1.9]				X	(1) Moisture from the ground must be prevented from reaching— (a) the lowest floor timbers and the walls above the lowest floor joists; and (b) the walls above the damp-proof course; and (c) the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. (2) Where a damp-proof course is provided, it must consist of— (a) a material that complies with AS/NZS 2904; or (b) impervious sheet material in accordance with AS 3660.1. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1D7 Damp-proofing of floors on the ground [2019: F1.10]				X	(1) If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870. (2) The requirements of (1) do not apply where— (a) weatherproofing is not required; or (b) the floor is the base of a stair, lift or similar shaft which is adequately drained by gravitation or mechanical means. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1D8 Subfloor ventilation [2019: F1.12]			X		Not applicable.
Part F2 Wet areas and overflow protection					
F2D2 Wet area construction				X	(1) In a Class 2 building, building elements in wet areas must— (a) be water resistant or waterproof in accordance with Specification 26; and (b) comply with AS 3740.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
[2019: F1.7(a) and (b)]					<p>(2) In a Class 5, 6 or 7 building, building elements in a bathroom or shower room, a slop hopper or sink compartment, a laundry or sanitary compartment must—</p> <ul style="list-style-type: none"> (a) be water resistant or waterproof in accordance with Specification 26; and (b) comply with AS 3740, as if they were in a Class 2 building. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F2D3 Rooms containing urinals [2019: F1.7(c), (d) and (e)]</p>				X	<p>(1) Where a slab or stall type urinal is installed—</p> <ul style="list-style-type: none"> (a) the floor surface of the room containing the urinal must be an impervious material; and <ul style="list-style-type: none"> (i) where no step is installed, must— <ul style="list-style-type: none"> (A) be graded to the urinal channel for a distance of 1.5 m from the urinal channel; and (B) have the remainder of the floor graded to a floor waste; and (ii) where a step is installed— <ul style="list-style-type: none"> (A) the step must have an impervious surface and be graded to the urinal channel; and (B) the floor behind the step must be graded to a floor waste; and (b) the junction between the floor surface and the urinal channel must be impervious. <p>(2) Where a wall hung urinal is installed—</p> <ul style="list-style-type: none"> (a) the wall must be surfaced with impervious material extending from the floor to the top of the urinal and not less than 225 mm on each side of the urinal; and (b) the floor must be surfaced with an impervious material and be graded to a floor waste. <p>(3) In a room with timber or steel-framed walls and containing a urinal—</p> <ul style="list-style-type: none"> (a) the wall must be surfaced with an impervious material extending from the floor to not less than 100 mm above the floor surface; and (b) the junction of the floor surface and the wall surface must be impervious. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F2D4 Floor wastes [2019: F1.11]</p>				X	<p>(1) In a Class 2 building, a bathroom or laundry located at any level above a sole occupancy unit or public space must have a floor waste.</p> <p>(2) Where a floor waste is installed—</p> <ul style="list-style-type: none"> (a) the minimum continuous fall of a floor plane to the waste must be 1:80; and (b) the maximum continuous fall of a floor plane to the waste must be 1:50. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
Part F3 Roof and wall cladding					
F3D1 Deemed-to Satisfy Provisions [New for 2022]			X		(1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirement F3P1 is satisfied by complying with F3D2 to F3D5. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.
F3D2 Roof coverings [2019: F1.5]				X	A roof must be covered with— (a) roof tiles complying with AS 2049, fixed in accordance with AS 2050; or (b) metal sheet roofing complying with AS 1562.1; or (c) plastic sheet roofing designed and installed in accordance with AS 1562.3; or (d) terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or (e) an external waterproofing membrane complying with F1D5. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F3D3 Sarking [2019: F1.6]				X	Sarking-type material used for weatherproofing of roofs and walls must comply with AS 4200.1 and AS 4200.2. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F3D4 Glazed assemblies [2019: F1.13]				X	(1) Subject to (2), the following glazed assemblies in an external wall, must comply with AS 2047 requirements for resistance to water penetration: (a) Windows. (b) Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame. (c) Adjustable louvres. (d) Shopfronts. (e) Window walls with one piece framing. (2) The following glazed assemblies need not comply with (1): (a) All glazed assemblies not in an external wall. (b) Revolving doors. (c) Fixed louvres. (d) Skylights, roof lights and windows in other than the vertical plane. (e) Sliding and swinging glazed doors without a frame. (f) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047. (g) Second-hand windows, re-used windows and recycled windows. (h) Heritage windows. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F3D5 Wall cladding [New for 2022]				X	(1) External wall cladding must comply with one or a combination of the following:



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700.</p> <p>(b) Autoclaved aerated concrete: AS 5146.3.</p> <p>(c) Metal wall cladding: AS 1562.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Where compliance cannot be achieved with the requirements of this clause, a Performance Solution will need to be obtained from a suitably qualified Façade Engineer.</p>
Part F4 Sanitary and other facilities					
<p>F4D2 Facilities in residential buildings [2019: F2.1]</p>				X	<p>Compliance commentary:</p> <p>The units to the south-western side of building C (Upper ground to Level 10) appear to have 2 kitchens each, however the client has confirmed that mini bars are proposed to the master bedrooms in these units (example unit layout below).</p>
					<p>The floor plan shows a unit layout with a kitchen, dining area, living area, and bedroom. Two kitchen areas are highlighted in yellow, indicating the locations of the mini bars mentioned in the commentary.</p>
				X	<p>BCA Requirements:</p>
					<p>(1) For facilities in Class 2 buildings, the following applies:</p> <ul style="list-style-type: none"> (a) Within each sole-occupancy unit, provide— <ul style="list-style-type: none"> (i) a kitchen sink and facilities for the preparation and cooking of food; and (ii) a bath or shower; and (iii) a closet pan; and (iv) a washbasin. (b) For laundry facilities, provide either— <ul style="list-style-type: none"> (i) in each sole-occupancy unit— <ul style="list-style-type: none"> (A) clothes washing facilities, comprising at least one washtub and a space for a washing machine; and



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					<p>(B) clothes drying facilities comprising clothes line or a hoist with not less than 7.5 m of line, or space for one heat operated drying cabinet or appliance in the same room as the clothes washing facilities; or</p> <p>(c) For the purposes of (a) and (b), a kitchen sink or washbasin must not be counted as a laundry washtub.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F4D3 Calculation of number of occupants and facilities [2019: F2.2]</p>			X		<p>(1) The number of persons accommodated must be calculated according to D2D18 if it cannot be more accurately determined by other means.</p> <p>(2) Unless the premises are used predominantly by one sex, sanitary facilities must be provided on the basis of equal numbers of males and females.</p> <p>(3) In calculating the number of sanitary facilities to be provided under F4D2 and F4D4, a unisex facility required for people with a disability (other than a facility provided under F4D12) may be counted once for each sex.</p> <p>(4) For the purposes of this Part, a unisex facility comprises one closet pan, one washbasin and means for the disposal of sanitary products.</p>
<p>F4D4 Facilities in Class 3 to 9 buildings [2019: F2.3]</p>				<p>X</p> <p>X</p>	<p>Further information required:</p> <p>No sanitary facilities have been detailed for the proposed class 5 commercial units and class 6 retail units. As such, as assessment of this has not been undertaken.</p> <p>BCA Requirements:</p> <p>(1) Except where permitted by (3), (4), F4D5(a) and F4D5(b), separate sanitary facilities for males and females must be provided for Class 5 or 6 buildings in accordance with Tables F4D4a to F4D4l, as appropriate.</p> <p>(2) In Tables F4D4a to F4D4l—</p> <ul style="list-style-type: none"> (a) 'Number' means the number of facilities required; and (b) '>' means greater than; and (c) a hyphen means no data (refer to the row above for the highest value applicable); and (d) 'N/A' means not applicable; and (e) a reference to— <ul style="list-style-type: none"> (i) employees includes owners and managers using the building; and (ii) add 1 per 100 or 150, 250, 500" etc. includes any part of that number. <p>(3) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex.</p> <p>(4) If the majority of employees are of one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy.</p> <p>(5) Employees and the public may share the same facilities in a Class 6 provided the number of facilities provided is not less than the total number of facilities required for employees plus those required for the public.</p> <p>(6) Adequate means of disposal of sanitary products must be provided in sanitary facilities for use by females.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(7) Not less than one washbasin must be provided where closet pans or urinals are provided. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F4D5 Accessible sanitary facilities [2019: F2.4]			X		Refer to separate access consultant's report
F4D6 Accessible unisex sanitary compartments [2019: Table F2.4a]			X		Refer to separate access consultant's report
F4D7 Accessible unisex showers [2019: Table F2.4b]			X		Refer to separate access consultant's report
F4D8 Construction of sanitary compartments [2019: F2.5]				X	(1) Sanitary compartments must have doors and partitions that separate adjacent compartments and extend— (a) from floor level to the ceiling in the case of a unisex facility; or (b) 1.8 m above the floor in all other cases. (2) The door to a fully enclosed sanitary compartment must— (a) open outwards; or (b) slide; or (c) be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F4D8, between the closet pan within the sanitary compartment and the doorway. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F4D9 Interpretation: urinals and washbasins [2019: F2.6]			X		(1) A urinal may be— (a) an individual stall or wall-hung urinal; or (b) each 600 mm length of a continuous urinal trough; or (c) a closet pan used in place of a urinal. (2) A washbasin may be— (a) an individual basin; or (b) a part of a hand washing trough served by a single water tap.
F4D11 Waste management [2019: F2.8]			X		Not applicable.
F4D12 Accessible adult change facilities [2019: F2.9]			X		Not applicable.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
Part F5 Room heights					
F5D2 Height of rooms and other spaces [2019: F3.1]				X	<p>(1) The height of rooms and other spaces in a Class building must be not less than—</p> <ul style="list-style-type: none"> (a) for a kitchen, laundry, or the like — 2.1 m; and (b) for a corridor, passageway or the like — 2.1 m; and (c) for a habitable room excluding a kitchen — 2.4 m; and (d) in a habitable room, or space within a habitable room, with a sloping ceiling or projections below the ceiling line— <ul style="list-style-type: none"> (i) in an attic — a height of not less than 2.2 m for not less than two-thirds of the floor area of the room or space; and (ii) in other rooms — a height of not less than 2.4 m for not less than two-thirds of the floor area of the room or space; and (e) in a non-habitable room, or space within a non-habitable room, with a sloping ceiling or projections below the ceiling line — a height of not less than 2.1 m for not less than two-thirds of the floor area of the room or space. <p>(2) For the purposes of (1), when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included.</p> <p>(3) The height of rooms and other spaces in a Class 5, 6 or 7 building must be not less than—</p> <ul style="list-style-type: none"> (a) except as allowed in (b) and (4) — 2.4 m; and (b) a corridor, passageway, or the like — 2.1 m. <p>(4) The height of rooms and other spaces in any building must be not less than—</p> <ul style="list-style-type: none"> (a) for a bathroom, shower room, sanitary compartment, other than an accessible adult change facility, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m; and (b) for a commercial kitchen — 2.4 m; and (c) above a stairway, ramp, landing or the like — 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
Part F6 Light and Ventilation					
F6D2 Provision of natural light [2019: F4.1]				X	<p>Natural light must be provided in:</p> <ul style="list-style-type: none"> (a) A Class 2 building— to all habitable rooms. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F6D3 Methods and extent of natural light [2019: F4.2]				X	<p>(1) Required natural light must be provided by—</p> <ul style="list-style-type: none"> (a) windows, excluding roof lights, that— <ul style="list-style-type: none"> (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (ii) 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 (b) roof lights, that—





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					<p>(i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and</p> <p>(ii) are open to the sky; or</p> <p>(c) a proportional combination of windows and roof lights required by (a) and (b)</p> <p>(2) In a Class 2 building, a required window that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment must not be less than a horizontal distance from that boundary or wall that is the greater of—</p> <p>(a) generally — 1 m; and</p> <p>(b) 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F6D4 Natural light borrowed from adjoining room [2019: F4.3]</p>				X	<p>(1) Natural light to a room in a Class 2 building, may come through one or more glazed panels or openings from an adjoining room (including an enclosed verandah) if—</p> <p>(a) both rooms are within the same sole-occupancy unit or the enclosed verandah is on common property; and</p> <p>(b) the glazed panels or openings have an aggregate light transmitting area of not less than 10% of the floor area of the room to which it provides light; and</p> <p>(c) the adjoining room has—</p> <p>(i) windows, excluding roof lights, that—</p> <p>(A) have an aggregate light transmitting area of not less than 10% of the combined floor areas of both rooms; and</p> <p>(B) 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) roof lights, that—</p> <p>(A) have an aggregate light transmitting area of not less than 3% of the combined floor areas of both rooms; and</p> <p>(B) are open to the sky; or</p> <p>(iii) a proportional combination of windows and roof lights required by (i) and (ii).</p> <p>(2) The areas specified in (1)(b) and (c) may be reduced as appropriate if direct natural light is provided from another source.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F6D5 Artificial lighting [2019: F4.4]</p>				X	<p>(1) Artificial lighting must be provided—</p> <p>(a) in required stairways, passageways, and ramps; and</p> <p>(b) if natural light of a standard equivalent to that required by F6D3 is not available, and the periods of occupation or use of the room or space will create undue hazard to occupants seeking egress in an emergency, in—</p> <p>(i) a Class 2 building — to sanitary compartments, bathrooms, shower rooms, airlocks, laundries, common</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>stairways and other spaces used in common by the occupants of the building; and</p> <p>(ii) Class 5, 6 or 7 buildings — to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress.</p> <p>(2) The artificial lighting system must comply with AS/NZS 1680.0.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>NSW F6D6 Ventilation of rooms [2019: F4.5]</p>				X	<p>A habitable room, office, shop, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have—</p> <p>(a) natural ventilation complying with F6D7; or</p> <p>(b) a mechanical ventilation or air-conditioning system complying with AS 1668.2.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F6D7 Natural ventilation [2019: F4.6]</p>				X	<p>(1) Natural ventilation provided in accordance with F6D6(a) must consist of openings, windows, doors or other devices which can be opened—</p> <p>(a) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and</p> <p>(b) open to—</p> <p>(i) a suitably sized court, or space open to the sky; or</p> <p>(ii) an open verandah, carport, or the like; or</p> <p>(iii) an adjoining room in accordance with F6D8.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F6D8 Ventilation borrowed from adjoining room [2019: F4.7]</p>				X	<p>Natural ventilation to a room may come through a window, opening, door or other device from an adjoining room (including an enclosed verandah) if both rooms are within the same sole-occupancy unit or the enclosed verandah is common property, and—</p> <p>(a) in a Class 2 building—</p> <p>(i) the room to be ventilated is not a sanitary compartment; and</p> <p>(ii) the window, opening, door or other device has a ventilating area of not less than 5% of the floor area of the room to be ventilated; and</p> <p>(iii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 5% of the combined floor areas of both rooms; and</p> <p>(b) in a Class 5, 6 or 7 building—</p> <p>(i) the window, opening, door or other device has a ventilating area of not less than 10% of the floor area of the room to be ventilated, measured not more than 3.6 m above the floor; and</p> <p>(ii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 10% of the combined floor areas of both rooms; and</p> <p>(c) the ventilating areas specified in (a) and (b) may be reduced as appropriate if direct natural ventilation is provided from another source.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F6D9 Restriction on location of sanitary compartments [2019: F4.8]				X	A sanitary compartment must not open directly into— (a) a kitchen or pantry; or (b) a public dining room or restaurant; or (c) a workplace normally occupied by more than one person. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F6D10 Airlocks [2019: F4.9]				X	If a sanitary compartment is prohibited under F6D9 from opening directly to another room— (a) in a sole-occupancy unit in a Class 2 building— (i) access must be by an airlock, hallway or other room; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation; and (b) in a Class 5, 6 or 7 building— (i) access must be by an airlock, hallway or other room with a floor area of not less than 1.1 m ² and fitted with self-closing doors at all access doorways; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation and the doorway to the room adequately screened from view. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F6D11 Carparks [2019: F4.11]				X	Every storey of a carpark, must have— (a) a system of mechanical ventilation complying with AS 1668.2; or (b) a system of natural ventilation complying with Section 4 of AS 1668.4 Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F6D12 Kitchen local exhaust ventilation [2019: F4.12]				X	A commercial kitchen must be provided with a kitchen exhaust hood complying with AS 1668.1 and AS 1668.2 where— (a) any cooking apparatus has— (i) a total maximum electrical power input exceeding 8 kW; or (ii) a total gas power input exceeding 29 MJ/hour; or (b) the total maximum power input to more than one apparatus exceeds, per m ² of floor area of the room or enclosure— (i) 0.5 kW electrical power; or (ii) 1.8 MJ/hour gas. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Part F7 Sound transmission and insulation					
F7D2 Application of Part [2019: F5.1]			X		The Deemed-to-Satisfy Provisions of this Part apply to Class 2 buildings.
F7D3				X	A form of construction required to have an airborne sound insulation rating must—





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
Determination of airborne sound insulation ratings [2019: F5.2]					<p>(a) have the required value for weighted sound reduction index (R_w) or weighted sound reduction index with spectrum adaptation term ($R_w + C_{tr}$) determined in accordance with AS/NZS ISO 717.1 using results from laboratory measurements; or</p> <p>(b) comply with Specification 28.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D4 Determination of impact sound insulation ratings [2019: F5.3]				X	<p>1) A floor in a building required to have an impact sound insulation rating must—</p> <p>(a) have the required value for weighted normalised impact sound pressure level ($L_{n,w}$) determined in accordance with AS ISO 717.2 using results from laboratory measurements; or</p> <p>(b) comply with Specification 28.</p> <p>(2) A wall in a building required to have an impact sound insulation rating must—</p> <p>(a) for a Class 2 building, be of discontinuous construction and</p> <p>(3) For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and—</p> <p>(a) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and</p> <p>(b) for other than masonry, there is no mechanical linkage between leaves except at the periphery.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D5 Sound insulation rating of floors [2019: F5.4]				X	<p>(1) A floor in a Class 2 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w}$ (impact) not more than 62 if it separates—</p> <p>(a) sole-occupancy units; or</p> <p>(b) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D6 Sound insulation rating of walls [2019: F5.5]				X	<p>(1) A wall in a Class 2 building must—</p> <p>(a) have an $R_w + C_{tr}$ (airborne) not less than 50, if it separates sole-occupancy units; and</p> <p>(b) have an R_w (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and</p> <p>(c) comply with F7D4(2) if it separates—</p> <p>(i) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or</p> <p>(ii) a sole-occupancy unit from a plant room or lift shaft.</p> <p>(2) A door may be incorporated in a wall in a Class 2 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30.</p> <p>(3) Where a wall required to have sound insulation has a floor above, the wall must continue to—</p> <p>(a) the underside of the floor above; or</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(b) a ceiling that provides the sound insulation required for the wall. (4) Where a wall required to have sound insulation has a roof above, the wall must continue to— (a) the underside of the roof above; or (b) a ceiling that provides the sound insulation required for the wall. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F7D7 Sound insulation rating of internal services [2019: F5.6]				X	(1) If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_w + C_r$ (airborne) not less than— (a) 40 if the adjacent room is a habitable room (other than a kitchen); or (b) 25 if the adjacent room is a kitchen or non-habitable room. (2) If a stormwater pipe passes through a sole-occupancy unit, it must be separated in accordance with (1)(a) and (b). Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F7D8 Sound isolation of pumps [2019: F5.7]				X	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Part F8 Condensation management					
F8D2 Application of Part [2019: F6.1]			X		The Deemed-to-Satisfy Provisions of this Part only apply to a sole-occupancy unit of a Class 2 building.
F8D3 External wall construction [2019: F6.2]				X	(1) Where a pliable building membrane is installed in an external wall, it must— (a) comply with AS 4200.1; and (b) be installed in accordance with AS 4200.2; and (c) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. (2) Where a pliable building membrane, sarking-type material or insulation layer is installed on the exterior side of the primary insulation layer of an external wall it must have a vapour permeance of not less than— (a) in climate zone 6, 1.14 $\mu\text{g}/\text{N.s}$. (3) Except for single skin masonry and single skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F8D4 Exhaust systems [2019: F6.3]				X	(1) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of— (a) 25 L/s for a bathroom or sanitary compartment; and (b) 40 L/s for a kitchen or laundry.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(2) Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air.</p> <p>(3) Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air.</p> <p>(4)(3) does not apply if a condensing-type clothes drying appliance is installed.</p> <p>(5) An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with F6D7 must—</p> <ul style="list-style-type: none"> (a) be interlocked with the room's light switch; and (b) include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off. <p>(6) Except for rooms that are ventilated in accordance with F6D7, a room with space for ducting a clothes drying appliance to outdoor air in accordance with (3) must be provided with make-up air in accordance with AS 1668.2</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>F8D5 Ventilation of roof spaces [2019: F6.4]</p>				X	<p>(1) In climate zones 6, a roof must have a roof space that—</p> <ul style="list-style-type: none"> (a) is located— <ul style="list-style-type: none"> (i) immediately above the primary insulation layer; or (ii) immediately above sarking with a vapour permeance of not less than 1.14 µg/N.s, which is immediately above the primary insulation layer; or (iii) immediately above ceiling insulation which meets the requirements of J3D7(3) and J3D7(4); and (b) has a height of not less than 20 mm; and (c) is either— <ul style="list-style-type: none"> (i) ventilated to outdoor air through evenly distributed openings in accordance with Table F8D5; or (ii) located immediately underneath roof tiles of an unsarked tiled roof. <p>(2) The requirements of (1) do not apply to a—</p> <ul style="list-style-type: none"> (a) concrete roof; or (b) roof that is made of structural insulated panels; or <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Section G Ancillary Provisions					
Part G1 Minor structures and components					
<p>NSW G1D2 Swimming pools [2019: G1.1]</p>			X		<p>(1) A swimming pool with a depth of water more than 300 mm and which is associated with a Class 2 building, must have suitable barriers to restrict access by young children to the immediate pool surrounds in accordance with AS 1926.1 and AS 1926.2.</p> <p>(2) A water recirculation system in a swimming pool with a depth of water more than 300 mm must comply with AS 1926.3.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
G1D3 Refrigerated chambers, strong-rooms and vaults [2019: G1.2]				X	<p>(1) A refrigerated or cooling chamber, strongroom or vault which is of sufficient size for a person to enter must have—</p> <ul style="list-style-type: none"> (a) a door which is capable of being opened by hand from inside without a key; and (b) internal lighting controlled only by a switch which is located adjacent to the entrance doorway inside the chamber, strongroom or vault; and (c) an indicator lamp positioned outside the chamber, strongroom or vault which is illuminated when the interior lights required by (b) are switched on; and (d) an alarm that is— <ul style="list-style-type: none"> (i) located outside but controllable only from within the chamber, strongroom or vault; and (ii) able to achieve a sound pressure level outside the chamber, strongroom or vault of 90 dB(A) when measured 3 m from the sounding device. <p>(2) A door required by (1)(a) in a refrigerated or cooling chamber must have a doorway with a clear width of not less than 600 mm and a clear height not less than 1.5 m.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
G1D4 Outdoor play spaces [2019: G1.3]			X		Not applicable.
NSW G1D5 Provision for cleaning windows [2016: NSW G1.101]				X	<p>(1) A building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level.</p> <p>(2) A building satisfies (1) where—</p> <ul style="list-style-type: none"> (a) the windows can be cleaned wholly from within the building; or (b) provision is made for the cleaning of the windows by a method complying with the Work Health and Safety Act 2011 and regulations made under that Act. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
Part G2 Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues					
G2D2 Installation of appliances [2019: G2.2]				X	<p>The installation of a stove, heater or similar appliance in a building must comply with:</p> <ul style="list-style-type: none"> (a) Domestic solid-fuel burning appliances — installation: AS/NZS 2918. (b) For boilers and pressure vessels: Specification 30. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
G2D3 Open fireplaces [2019: G2.3]				X	<p>An open fireplace, or solid-fuel burning appliance in which the fuel-burning compartment is not enclosed must have—</p> <ul style="list-style-type: none"> (a) a hearth constructed of stone, concrete, masonry or similar non-combustible material so that— <ul style="list-style-type: none"> (i) it extends not less than 300 mm beyond the front of the fireplace opening and not less than 150 mm beyond each side of that opening; and





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(ii) it extends beyond the limits of the fireplace or appliance not less than 300 mm if the fireplace or appliance is free-standing from any wall of the room; and</p> <p>(iii) its upper surface does not slope away from the grate or appliance; and</p> <p>(iv) combustible material situated below or around the external edge of the hearth but not below that part required to extend beyond the fireplace opening or the limits of the fireplace is not less than 150 mm from the upper surface of the hearth; and</p> <p>(b) walls forming the sides and back of the fireplace up to not less than 300 mm above the underside of the arch or lintel which—</p> <p>(i) are constructed in 2 separate leaves of solid masonry with a total combined thickness not less than 180 mm, excluding any cavity; and</p> <p>(ii) do not consist of concrete block masonry in the construction of the inner leaf; and</p> <p>(c) walls of the chimney above the level referred to in (b)—</p> <p>(i) constructed of masonry units with a net volume, excluding cored and similar holes, not less than 75% of their gross volume, measured on the overall rectangular shape of the units, and with an actual thickness of not less than 100 mm; and</p> <p>(ii) lined internally to a thickness of not less than 12 mm with rendering consisting of 1 part cement, 3 parts lime, and 10 parts sand by volume, or other suitable material; and</p> <p>(d) suitable damp-proof courses or flashings to maintain weatherproofing.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
G2D4 Incinerator rooms [2019: G2.4]			X		Not applicable.
Part G3 Atrium Construction – This part does not apply					
Part G4 Construction in alpine areas – This part does not apply					
Part G5 Construction in bushfire prone areas – This part does not apply					
Part G6 Occupiable outdoor areas					
G6D1 Application of Part [2019: G6.1]			X		<p>(1) The Deemed-to-Satisfy Provisions of this Part apply to buildings containing an occupiable outdoor area in addition to the other Deemed-to-Satisfy Provisions of NCC Volume One.</p> <p>(2) The Deemed-to-Satisfy Provisions of this Part take precedence where there is a difference to the Deemed-to-Satisfy Provisions of Sections C, D, E, F and G.</p> <p>(3) Except for G6D2, the Deemed-to-Satisfy Provisions of this Part do not apply to—</p> <p>(a) an occupiable outdoor area of a sole-occupancy unit in a Class 2 building.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
G6D2 Fire hazard properties [2019: G6.2]				X	(1) Subject to (2), a lining, material or assembly in an occupiable outdoor area must comply with C2D11 as for an internal element. (2) The following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C2D11: (a) Average specific extinction area. (b) Smoke-Developed Index. (c) Smoke development rate. (d) Smoke growth rate index (SMOGRARC). <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
G6D3 Fire separation [2019: G6.3]			X		Not applicable.
G6D4 Provision for escape [2019: G6.4]			X		Not applicable.
G6D5 Construction of exits [2019: G6.5]			X		Not applicable.
G6D6 Firefighting equipment [2019: G6.6]			X		Not applicable.
G6D7 Lift installations [2019: G6.7]			X		Not applicable.
G6D8 Visibility in an emergency, exit signs and warning systems [2019: G6.8]			X		Not applicable.
G6D9 Light and ventilation [2019: G6.9]			X		Not applicable.
G6D10 Fire Orders [2019: G6.10]			X		Not applicable.
Section J Energy Efficiency – Engage an energy efficiency consultant to prepare a Section J compliance report					





5.0 CONCLUSION

This report provides a Building Code of Australia 2022 (BCA) assessment of the proposed mixed use development comprising of 4 buildings, for the purposes of DA submission.

The primary purpose of this report was to identify the non-compliance matters contained in the proposed design philosophy against the current Deemed-to-Satisfy (DTS) Provisions of the BCA and to provide compliance recommendations to overcome the DTS non-compliances.

This report provided a BCA assessment table in Section 3.0 that summarises the identified non-compliance matters and offers specific recommendations that are also outlined in the Executive Summary.

Further, if compliance with the deemed-to-satisfy provisions is not achievable or desirable, Performance Solutions could be further developed and verified by an appropriately qualified BCA Consultant or Fire Safety Engineer.

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6.0 ATTACHMENT A - INSPECTION & MAINTENANCE

6.1 Fire Safety Measures

The fire safety measures within the building must be maintained to ensure correct operation at all times the building is occupied. All firefighting equipment should be tagged when tested/inspected and log books kept up-to-date for all smoke detection, warning systems and sprinkler systems (where installed).

An annual fire safety certificate must be submitted to the local consent authority and the NSW Fire Brigade each year indicating satisfactory performance of the fire safety measures contained within the building. The annual fire safety statement should be displayed in a prominent place within the building (i.e. the main entry foyer)

The correct operation and maintenance of the buildings fire safety measures is critical in affording an adequate level of fire safety.

6.2 Good Housekeeping

The ongoing management of the building should ensure good housekeeping procedures. The following matters should be considered by building management:

- ❖ Ensure exits and paths of travel to exits remain unobstructed (in particular stairways)
- ❖ Avoid storage of materials in unoccupied areas
- ❖ Limit storage of flammable/combustible materials to designated and approved areas
- ❖ Prevent chocking open fire/smoke doors
- ❖ Prevent storage of materials that could hinder access to firefighting equipment





7.0 APPENDIX A – TYPE A CONSTRUCTION REQUIREMENTS

This Appendix contains requirements for the fire-resisting construction of building elements in a building of Type A Construction.

S5C2 Exposure to fire-source features	<p>(1) A part of a building element is exposed to a fire-source feature if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that—</p> <ul style="list-style-type: none">(a) has an FRL of not less than 30/-/-; and(b) is neither transparent nor translucent. <p>(2) A part of a building element is not exposed to a fire-source feature if the fire-source feature is—</p> <ul style="list-style-type: none">(a) an external wall of another building that stands on the allotment and the part concerned is more than 15 m above the highest part of that external wall; or(b) a side or rear boundary of the allotment and the part concerned is below the level of the finished ground at every relevant part of the boundary concerned. <p>(3) If various distances apply for different parts of a building element—</p> <ul style="list-style-type: none">(a) the entire element must have the FRL applicable to that part having the least distance between itself and the relevant fire-source feature; or(b) each part of the element must have the FRL applicable according to its individual distance from the relevant fire source feature. <p>(4) The requirements of (3) do not override or permit any exemption from S5C3.</p>
S5C3 Fire protection for a support of another part	<p>(1) Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part, subject to (2), must—</p> <ul style="list-style-type: none">(a) have an FRL not less than that required by other provisions of this Specification; and(b) if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required—<ul style="list-style-type: none">(i) for the supporting part itself; and(ii) for the part it supports; and(c) be non-combustible—<ul style="list-style-type: none">(i) if required by other provisions of this Specification; or(ii) if the part it supports is required to be non-combustible. <p>(2) The following building elements need not comply with (1)(b) and (1)(c)(ii):</p> <ul style="list-style-type: none">(a) An element providing lateral support to an external wall complying with C2D12.(b) An element providing support within a carpark and complying with S5C19.(c) A roof providing lateral support in a building—<ul style="list-style-type: none">(i) of Type A construction if it complies with S5C15(a), (b) or (d).(d) A column providing lateral support to a wall where the column complies with S5C6(1) and (2).(e) An element providing lateral support to a fire wall or fire-resisting wall, provided the wall is supported on both sides and failure of the element on one side does not affect the fire performance of the wall.
S5C4 Lintels	<p>(1) A lintel must have the FRL required for the part of the building in which it is situated.</p> <p>(2) A lintel need not comply with (1) if it does not contribute to the support of a fire door, fire window or fire shutter, and—</p> <ul style="list-style-type: none">(a) it spans an opening in—<ul style="list-style-type: none">(i) a wall of a building containing only one storey; or(ii) a non-loadbearing wall of a Class 2 or 3 building; or(b) it spans an opening in masonry which is not more than 150 mm thick and—<ul style="list-style-type: none">(i) not more than 3m wide if the masonry is non-loadbearing; or(ii) not more than 1.8 m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall.





S5C5 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.
S5C6 General concessions	<p>(1) Steel columns — A steel column, other than one in a fire wall or common wall, need not have an FRL in a building that contains—</p> <ul style="list-style-type: none">(a) only 1 storey; or(b) 2 storeys in some of its parts and 1 storey only in its remaining parts if the sum of the floor areas of the upper storeys of its 2 storey parts does not exceed the lesser of—<ul style="list-style-type: none">(i) 1/8 of the sum of the floor areas of the 1 storey parts; or(ii) in the case of a building to which one of the maximum floor areas specified in Table C3D3 is applicable — 1/10 of that area; or(iii) in the case of a building to which two or more of the maximum floor area specified in Table C3D3 is applicable — 1/10 of the lesser of those areas. <p>(2) Timber columns — A timber column may be used in a single storey building if—</p> <ul style="list-style-type: none">(a) in a fire wall or common wall the column has an FRL not less than that listed in the appropriate Tables S5C11a to S5C11g; and(b) in any other case where the column is required to have an FRL in accordance with Tables S5C11a to S5C11g, it has an FRL of not less than 30/–/–. <p>(3) Structures on roofs — A non-combustible structure situated on a roof need not comply with the other provisions of this Specification if it only contains—</p> <ul style="list-style-type: none">(a) lift motor equipment; or(b) one or more of the following:<ul style="list-style-type: none">(i) Hot water or other water tanks.(ii) Ventilating ductwork, ventilating fans and their motors.(iii) Air-conditioning chillers.(iv) Window cleaning equipment.(v) Other service units that are non-combustible and do not contain flammable or combustible liquids or gases. <p>(4) Curtain walls and panel walls — A requirement for an external wall to have an FRL does not apply to a curtain wall or panel wall which is of non-combustible construction and fully protected by automatic external wall-wetting sprinklers.</p> <p>(5) Balconies and verandahs — A balcony, verandah or the like and any incorporated supporting part, which is attached to or forms part of a building, need not comply with Tables S5C11a to S5C11g, if—</p> <ul style="list-style-type: none">(a) it does not form part of the only path of travel to a required exit from the building; and(b) in Type A construction—<ul style="list-style-type: none">(i) it is situated not more than 2 storeys above the lowest storey providing direct egress to a road or open space; and(ii) any supporting columns are of non-combustible construction.
S5C7 Mezzanine floors: Concession	<p>(1) This Clause does not apply to a Class 9b building that is a spectator stand or audience viewing area accommodating more than 100 persons as calculated according to D2D18.</p> <p>(2) A mezzanine and its supports need not have an FRL or be non-combustible provided—</p> <ul style="list-style-type: none">(a) the total floor area of all the mezzanines in the same room does not exceed 1/3 of the floor area of the room or 200 m², whichever is the lesser; and(b) the FRL of each wall and column that supports any other part of the building within 6 m of the mezzanine is increased by the amount listed in Table S5C7.





S5C8 Enclosure of shafts	<p>(1) Shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that required for the walls of a non-loadbearing shaft in the same building.</p> <p>(2) The provisions of (1) need not apply to—</p> <ul style="list-style-type: none">(a) the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or(b) the bottom of a shaft if it is non-combustible and laid directly on the ground
S5C9 Carparks in Class 2 and 3 buildings	<p>(1) If a Class 2 building contains not more than 4 storeys of which—</p> <ul style="list-style-type: none">(a) one storey is Class 7 used solely for the purpose of parking motor vehicles or for some other purpose that is ancillary to a Class 2; and(b) the remaining storeys are of Class 2, the carpark storey is regarded as Class 2 only for the purpose of determining the relevant fire-resisting requirements of this Specification. <p>(2) If a Class 3 building or a building of Class 2 and 3 contains not more than 3 storeys of which—</p> <ul style="list-style-type: none">(a) one storey is Class 7 used solely for the purpose of parking motor vehicles or for some other purpose that is ancillary to the other storeys; and(b) the remaining storeys are of Class 2 or 3, the carpark storey is regarded as Class 2 or 3 only for the purpose of determining the relevant fire-resisting requirements of this Specification.
S5C10 Residential care building: Concession	<p>(1) In a Class 3 building protected with a sprinkler system complying with Specification 17 and used as a residential care building, any FRL criterion prescribed in Tables S5C11a to S5C11g—</p> <ul style="list-style-type: none">(a) for any floor and any loadbearing wall, may be reduced to 60, except any FRL criterion of 90 for an external wall must be maintained when tested from the outside; and(b) for any non-loadbearing internal wall, need not apply if—<ul style="list-style-type: none">(i) it is lined on each side with standard grade plasterboard not less than 13 mm thick or similar non-combustible material; and(ii) it extends—<ul style="list-style-type: none">(A) to the underside of the floor next above; or(B) to the underside of a ceiling lined with standard grade plasterboard not less than 13 mm thick or a material with at least an equivalent level of fire protection; or(C) to the underside of a non-combustible roof covering; and(iii) any insulation installed in the cavity of the wall is non-combustible; and(iv) any construction joint, space or the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material. <p>(2) The concession described at (1) does not apply to fire-protected timber building elements.</p>
S5C11 Type A fire-resisting construction — Fire-resistance of building elements	<p>(1) In a building required to be of Type A construction—</p> <ul style="list-style-type: none">(a) each building element listed in Tables S5C11a to S5C11g and any beam or column incorporated in it, must have an FRL not less than that listed in those Tables for the particular Class of building concerned; and(b) any internal wall required to have an FRL with respect to integrity and insulation must extend to—<ul style="list-style-type: none">(i) the underside of the floor next above; or(ii) the underside of a roof complying with Tables S5C11a to S5C11g; or(iii) if under S5C15 the roof is not required to comply with Tables S5C11a to S5C11g, the underside of the non-combustible roof covering and, except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or



- (iv) a ceiling that is immediately below the roof and has a resistance to the incipient spread of fire to the roof space between the ceiling and the roof of not less than 60 minutes; and
 - (c) a loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from—
 - (i) concrete; or
 - (ii) masonry; or
 - (iii) subject to (2), fire-protected timber; or
 - (iv) any combination of (i) to (iii); and
 - (d) the FRLs specified in Tables S5C11a to S5C11g for an external column apply also to those parts of an internal column that face and are within 1.5 m of a window and are exposed through that window to a fire-source feature.
- (2) For the purposes of (1)(c)(iii), fire-protected timber may be used, provided that—
- (a) the building is—
 - (i) a separate building; or
 - (ii) a part of a building—
 - (A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or
 - (B) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and
 - (b) the building has an effective height of not more than 25 m; and
 - (c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and
 - (d) any insulation installed in the cavity of the timber building element required to have an FRL is non-combustible; and
 - (e) cavity barriers are provided in accordance with Specification 9.
- (3) For the purposes of Table S5C11a and Table S5C11b, external wall includes any column and other building element incorporated within it or other external building element.

Table S5C11a: Type A construction: FRL of loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/60	120/90/90	180/180/120	240/240/180
3 m or more	90/60/30	120/60/30	180/120/90	240/180/90

Table S5C11b: Type A construction: FRL of non-loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	-/90/90	-/120/120	-/180/180	-/240/240
1.5 to less than 3 m	-/60/60	-/90/90	-/180/120	-/240/180
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11c: Type A construction: FRL of external columns not incorporated in an external wall

Column type	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
<i>Loadbearing</i>	90/-/-	120/-/-	180/-/-	240/-/-
<i>Non-loadbearing</i>	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11d: Type A construction: FRL of common walls and fire walls

Wall Type	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
<i>Loadbearing or non-loadbearing</i>	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C11e: Type A construction: FRL of loadbearing internal walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	90/90/90	120/120/120	180/120/120	240/120/120
Bounding public corridors, public lobbies and the like	90/90/90	120/-/-	180/-/-	240/-/-
Between or bounding sole-occupancy units	90/90/90	120/-/-	180/-/-	240/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	90/90/90	120/90/90	180/120/120	240/120/120

Table S5C11f: Type A construction: FRL of non-loadbearing internal walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	-/90/90	-/120/120	-/120/120	-/120/120
Bounding public corridors, public lobbies and the like	-/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units	-/60/60	-/-/-	-/-/-	-/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	-/90/90	-/90/90	-/120/120	-/120/120

Table S5C11g: Type A construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Other loadbearing internal walls, internal beams, trusses and columns	90/-/-	120/-/-	180/-/-	240/-/-
Floors	90/90/90	120/120/120	180/180/180	240/240/240
Roofs	90/60/30	120/60/30	180/60/30	240/90/60

<p>S5C12 Type A fire-resisting construction — Concessions for floors</p>	<p>A floor need not comply with Tables S5C11a to S5C11g if—</p> <ul style="list-style-type: none"> (a) it is laid directly on the ground; or (b) in a Class 2, 3, 5 or 9 building, the space below is not a storey, does not accommodate motor vehicles, is not a storage or work area, and is not used for any other ancillary purpose; or (c) it is a timber stage floor in a Class 9b building laid over a floor having the required FRL and the space below the stage is not used as a dressing room, store room, or the like; or (d) it is within a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building; or
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	(e) it is an open-access floor (for the accommodation of electrical and electronic services and the like) above a floor with the required FRL.
S5C13 Type A fire-resisting construction — Floor loading of Class 5 and 9b buildings: Concession	If a floor in a Class 5 or 9b building is designed for a live load not exceeding 3 kPa— (a) the floor next above (including floor beams) may have an FRL of 90/90/90; or (b) the roof, if that is next above (including roof beams), may have an FRL of 90/60/30.
S5C14 Type A fire-resisting construction — Roof superimposed on concrete slab: Concession	A roof superimposed on a concrete slab roof need not comply with S5C11 as to fire-resisting construction if— (a) the superimposed roof and any construction between it and the concrete slab roof are non-combustible throughout; and (b) the concrete slab roof complies with Tables S5C11a to S5C11g.
S5C15 Type A fire-resisting construction — Roof: Concession	A roof need not comply with Tables S5C11a to S5C11g if its covering is non-combustible and the building— (a) has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 installed throughout; or (b) has a rise in storeys of 3 or less; or (c) is of Class 2 or 3; or (d) has an effective height of not more than 25 m and the ceiling immediately below the roof has a resistance to the incipient spread of fire to the roof space of not less than 60 minutes.
S5C16 Type A fire-resisting construction — Roof lights	If a roof is required to have an FRL or its covering is required to be non-combustible, roof lights or the like installed in that roof must— (a) have an aggregate area of not more than 20% of the roof surface; and (b) be not less than 3 m from— (i) any boundary of the allotment other than the boundary with a road or public place; and (ii) any part of the building which projects above the roof unless that part has the FRL required of a fire wall and any openings in that part of the wall for 6 m vertically above the roof light or the like are protected in accordance with C4D5; and (iii) any roof light or the like in an adjoining sole-occupancy unit if the walls bounding the unit are required to have an FRL; and (iv) any roof light or the like in an adjoining fire-separated section of the building; and (c) if a ceiling with a resistance to the incipient spread of fire is required, be installed in a way that will maintain the level of protection provided by the ceiling to the roof space.
S5C17 Type A fire-resisting construction — Internal columns and walls: Concession	For a building with an effective height of not more than 25 m and having a roof without an FRL in accordance with S5C15, in the storey immediately below that roof, internal columns other than those referred to in S5C11(1)(d) and internal walls other than fire walls and shaft walls may have— (a) in a Class 2 or 3 building: FRL 60/60/60; or (b) in a Class 5, 6, 7, 8 or 9 building— (i) with rise in storeys exceeding 3: FRL 60/60/60; or (ii) with rise in storeys not exceeding 3: no FRL.
S5C18	In an open spectator stand or indoor sports stadium, the following building elements need not have the FRL specified in Tables S5C11a to S5C11g:





Type A fire-resisting construction — open spectator stands and indoor sports stadiums: Concession	<ul style="list-style-type: none">(a) The roof if it is non-combustible.(b) Columns and loadbearing walls supporting only the roof if they are non-combustible.(c) Any non-loadbearing part of an external wall less than 3 m—<ul style="list-style-type: none">(i) from any fire-source feature to which it is exposed if it has an FRL of not less than $-/60/60$ and is non-combustible; or(ii) from an external wall of another open spectator stand if it is non-combustible.
S5C19 Type A fire-resisting construction — carparks	<p>(1) Notwithstanding S5C11, a carpark may comply with this clause if it is an open-deck carpark or is protected with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 and is—</p> <ul style="list-style-type: none">(a) a separate building; or(b) a part of a building—<ul style="list-style-type: none">(i) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or(ii) which is located above or below another classification, and the floor separating the classifications complies with C3D10; or(iii) which is located above another Class 7 part of the building not used for carparking, and the floor separating the parts complies with Tables S5C11a to S5C11g for a Class 7 part other than a carpark; or(iv) which is located below another Class 7 part of the building not used for carparking, and the floor separating the parts complies with this clause. <p>(2) For the purposes of this clause, a carpark—</p> <ul style="list-style-type: none">(a) includes—<ul style="list-style-type: none">(i) an administration area associated with the functioning of the carpark; and(ii) where the carpark is sprinklered, is associated with a Class 2 or 3 building and provides carparking for separate sole-occupancy units, each carparking area with an area not greater than 10% of its floor area for purposes ancillary to the sole-occupancy units; but(b) excludes—<ul style="list-style-type: none">(i) except for (a), any area of another classification, or other part of a Class 7 building not used for carparking; and(ii) a building or part of a building specifically intended for the parking of trucks, buses, vans and the like. <p>(3) For building elements in a carpark as described in (1) and (2), the following minimum FRLs are applicable:</p> <ul style="list-style-type: none">(a) External wall:<ul style="list-style-type: none">(i) Less than 3 m from a fire-source feature to which it is exposed:<ul style="list-style-type: none">(A) Loadbearing: $60/60/60$.(B) Non-loadbearing: $-/60/60$.(ii) 3 m or more from a fire-source feature to which it is exposed: $-/-/-$.(b) Internal wall:<ul style="list-style-type: none">(i) Loadbearing, other than one supporting only the roof (not used for carparking): $60/-/-$.(ii) Supporting only the roof (not used for carparking): $-/-/-$.(iii) Non-loadbearing: $-/-/-$.(c) Fire wall:<ul style="list-style-type: none">(i) From the direction used as a carpark: $60/60/60$.(ii) From the direction not used as a carpark: as required by Tables S5C11a to S5C11g.(d) Columns:<ul style="list-style-type: none">(i) Supporting only the roof (not used for carparking) and 3 m or more from a fire-source feature to which it is exposed: $-/-/-$.





	<p>(ii) Steel column, other than one covered by (i) and one that does not support a part of a building that is not used as a carpark—</p> <ul style="list-style-type: none">(A) 60/—/—; or(B) an ESA/M of not greater than 26m² / tonne. <p>(iii) Any other column not covered by (i) or (ii): 60/—/—.</p> <p>(e) Beams:</p> <ul style="list-style-type: none">(i) Steel floor beam in continuous contact with a concrete floor slab—<ul style="list-style-type: none">(A) 60/—/—; or(B) an ESA/M of not greater than 30m²/tonne.(ii) Any other beam: 60/—/—. <p>(f) Fire-resisting lift and stair shaft (within the carpark only): 60/60/60.</p> <p>(g) Floor slab and vehicle ramp: 60/60/60.</p> <p>(h) Roof (not used for carparking): —/—/—.</p> <p>(4) For the purposes of subclause (3):</p> <ul style="list-style-type: none">(a) ESA/M means the ratio of exposed surface area to mass per unit length.(b) Refer to Specification 17 for special requirements for a sprinkler system in a carpark complying with (3) and located within a multi-classified building.
<p>S5C20 Type A fire-resisting construction — Class 2 and 3 buildings: Concession</p>	<p>(1) In a Class 2 or 3 building with a rise in storeys of not more than 3—</p> <ul style="list-style-type: none">(a) notwithstanding C2D10(1) and (2) and C3D7, timber framing may be used for—<ul style="list-style-type: none">(i) external walls; and(ii) common walls; and(iii) the floor framing of lifts pits; and(iv) non-loadbearing internal walls which are required to be fire-resisting; and(v) non-loadbearing shafts, except shafts used for the discharge of hot products of combustion; and(vi) spandrels or horizontal construction provided for the purposes of C3D7; and(b) notwithstanding S5C11(1)(c), for loadbearing internal walls and loadbearing fire walls—<ul style="list-style-type: none">(i) timber framing may be used; and(ii) non-combustible materials may be used; and(c) notwithstanding S5C3(1)(c), timber framing may be used for a part of a building that provides support to a part of a building constructed of timber framing or non-combustible material in accordance with S5C20(1)(a) and (b). <p>(2) A Class 2 or 3 building having a rise in storeys of not more than 4 may have the top three storeys constructed in accordance with (1) provided—</p> <ul style="list-style-type: none">(a) the lowest storey is used solely for the purpose of parking motor vehicles or for some other ancillary purpose; and(b) the lowest storey is constructed of concrete or masonry including the floor between it and the Class 2 or 3 part of the building above; and(c) the lowest storey and the storey above are separated by construction having an FRL of not less than 90/90/90 with no openings or penetrations that would reduce the fire-resisting performance of that construction except that a doorway in that construction may be protected by a —/60/30 self-closing fire door. <p>(3) In a Class 2 or 3 building complying with (1) or (2) and fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17, any FRL criterion prescribed in Tables S5C11a to S5C11g—</p> <ul style="list-style-type: none">(a) for any floor and any loadbearing wall, may be reduced to 60, except any FRL criterion of 90 for an external wall must be maintained when tested from the outside; and(b) for any non-loadbearing internal wall, need not apply if—





- (i) it is lined on each side with 13 mm standard grade plasterboard or similar non-combustible material; and
- (ii) it extends—
 - (A) to the underside of the floor next above; or
 - (B) to the underside of a ceiling with a resistance to the incipient spread of fire of 60 minutes; or
 - (C) to the underside of a non-combustible roof covering; and
- (iii) any insulation installed in the cavity of the wall is non-combustible; and
- (iv) any construction joint, space or the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material; and
- (v) any doorway in the wall is protected by a self-closing, tight fitting, solid core door not less than 35 mm thick.

