



# **BUILDING CODE OF AUSTRALIA 2022 CAPABILITY REPORT FOR DA SUBMISSION**

<b>CLIENT:</b>	<b>NSW HOUSING CORPORATION PTY LTD</b>
<b>PROJECT NAME:</b>	<b>MIXED USE DEVELOPMENT</b>
<b>PROJECT ADDRESS:</b>	<b>2-4 BURLEIGH STREET &amp; 20-24 RAILWAY PARADE, BURWOOD NSW 2134</b>
<b>DATE:</b>	<b>30 JANUARY 2025</b>
<b>PROJECT NO:</b>	<b>230266</b>

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## DCUMENT CONTROL

REVISION NO.	ISSUE DATE	DESCRIPTION	PREPARED BY	VERIFIED BY
R01	7 May 2024	BCA Mark-ups for Stakeholder Review	Roland Allam Building Surveyor – Certifier Unrestricted (BDC 3372)	Roland Allam Building Surveyor – Certifier Unrestricted (BDC 3372)
R02	7 May 2024	DRAFT BCA Report for DA submission	Jason Azzi Building Surveyor – Registered Certifier (BDC 3247)	Roland Allam Building Surveyor – Certifier Unrestricted (BDC 3372)
R03	19 November 2024	BCA Report for DA submission	Jason Azzi Building Surveyor – Registered Certifier (BDC 3247)	Roland Allam Building Surveyor – Certifier Unrestricted (BDC 3372)
R04	20 November 2024	BCA Report for DA submission - Updated	Jason Azzi Building Surveyor – Registered Certifier (BDC 3247)	Roland Allam Building Surveyor – Certifier Unrestricted (BDC 3372)
R05	30 January 2025	BCA Report for DA submission - Updated	Jason Azzi Building Surveyor – Registered Certifier (BDC 3247)	Roland Allam Building Surveyor – Certifier Unrestricted (BDC 3372)

# 1.0 EXECUTIVE SUMMARY

AllCert Pty Ltd has been engaged by NSW Housing Corporation Pty Ltd to provide a Building Code of Australia (BCA) 2022 compliance report for the proposed mixed-use development located at 2-4 Burleigh Street and 20-24 Railway Parade, Burwood NSW 2134.

The purpose of this compliance report is to evaluate the project against the BCA 2022 standards to facilitate the issuance of a development consent approval. As the design progresses, further assessments will be required to ensure that compliance is secured before any approval is granted.

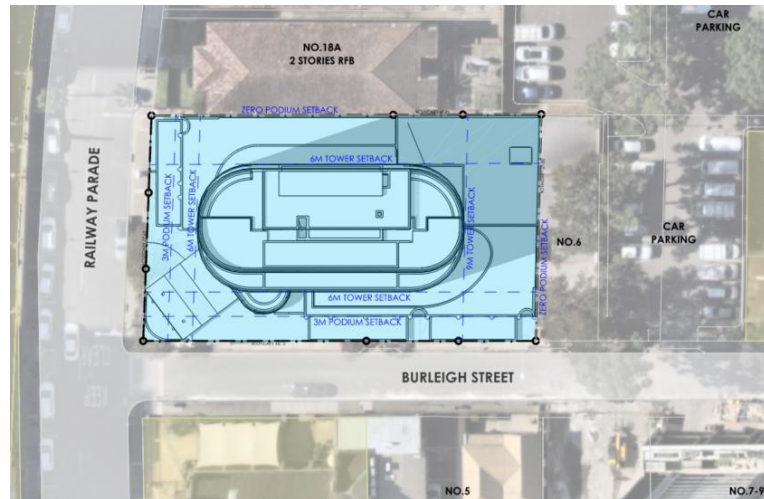


Figure 1: Overall site plan

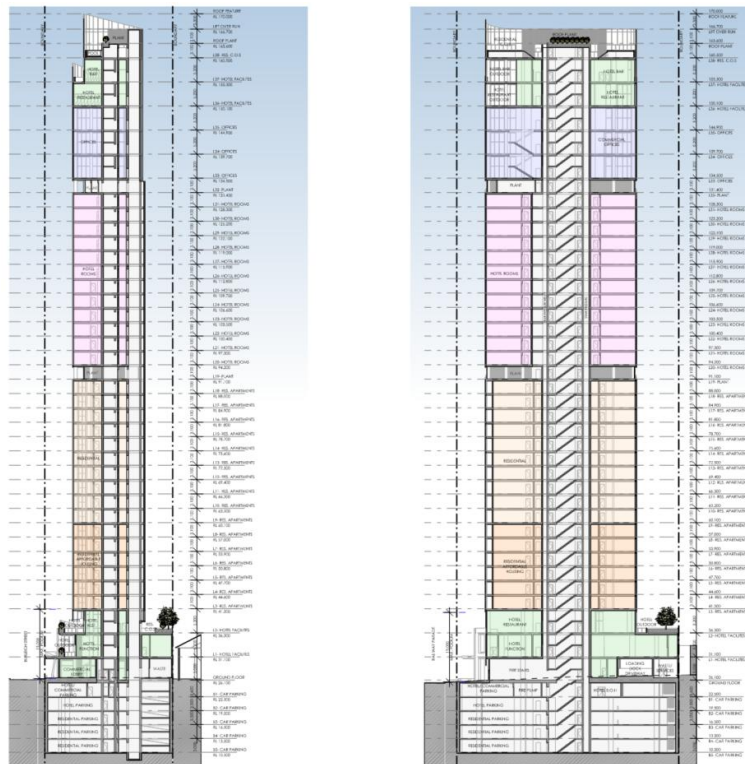


Figure 2: Sectional Plans

## 2.0 COMPLIANCE REPORT OBJECTIVES

Based on the information provided, the proposed development is a mixed use development for a site located at 2-4 Burleigh Street And 20-24 Railway Parade, Burwood NSW 2134. The proposed development consists of a mixed use residential, hotel and commercial building with basement carparking.

The objectives summary for a Building Code of Australia compliance statement include:

- a) Review the architectural documentation related to the proposed development at 2-4 Burleigh Street and 20-24 Railway Parade, Burwood NSW 2134, to confirm that the development is capable of achieving compliance with the BCA.
- b) Provide a compliance report confirming that the proposed development have been assessed against the BCA requirements and that the development is capable of achieving compliance with the BCA.

It should be noted that this compliance report does not attempt to identify all BCA provisions applicable to the subject development. The development will undergo a more detailed assessment against the BCA at the Construction Certificate stage, following the receipt of more comprehensive documentation.

### 3.0 BUILDING CLASSIFICATION

For the purposes of the Building Code of Australia (BCA) the development may be described as follows.

CLASS	LEVEL	DESCRIPTION
Class 2	Ground Levels 3-18 Level 38	Residential
Class 3	Ground Level 2 Levels 20 – 31 Levels 36-37	Hotel
Class 5	Levels 33-35	Commercial
Class 7a	Basement Levels 1-5	Carpark
Class 7b	Level 19 Level 32	Plant / Storage
Class 9b	Level 1	Function Space
Class 10b	Level 38	Swimming Pool
<b>OVERALL STOREYS CONTAINED</b>		44
<b>RISE IN STOREYS</b>		39
<b>TYPE OF CONSTRUCTION</b>		Type A Construction
<b>EFFECTIVE HEIGHT (M)</b>		>25m
<b>GENERAL FLOOR AREA AND VOLUME LIMITATIONS FOR TYPE A CONSTRUCTION</b>		The floor area and volume of the building remain within the prescribed limitations for Type A Construction.
<b>FIRE COMPARTMENTS</b>		Each level (other than class 2 and 3 levels levels) are separate fire compartments Each sole-occupancy unit in the class 2 and 3 levels are separate fire compartments
<b>CLIMATE ZONE</b>		Climate Zone 5 - warm temperate.

Table 1: Building Classification(s)

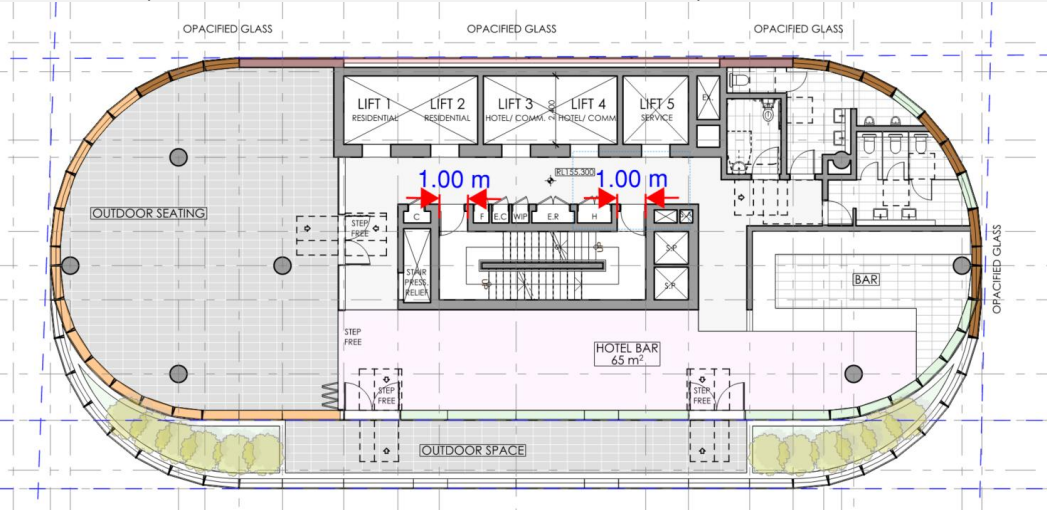
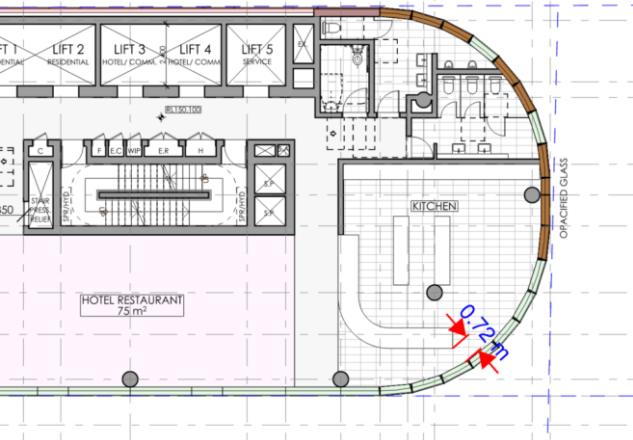
## 4.0 BCA ASSESSMENT KEY ISSUES

Upon a detailed review of the documents listed in Appendix A, we have compiled a list of non-compliances. There are several pathways available to rectify these issues and meet the BCA's Performance Requirements. We propose specific resolutions for each identified non-compliance for consideration. The examination of the design documentation has indicated deviations from the BCA's deemed-to-satisfy provisions in the following areas. To ensure compliance, these deviations must be addressed either by revising the design to conform to the deemed-to-satisfy provisions or by developing a performance solution that demonstrates compliance with the BCA's Performance Requirements.

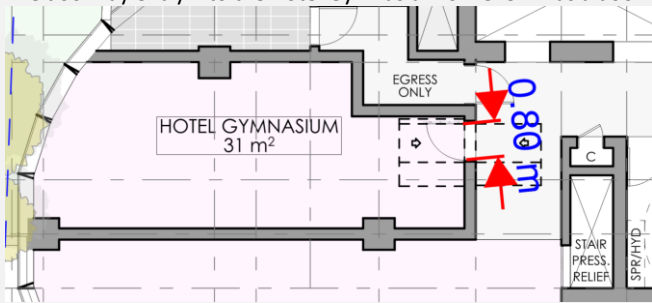
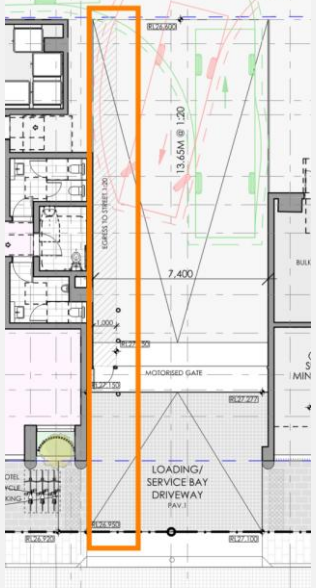
Table 2: BCA matters to be addressed

BCA ASSESSMENT - KEY ISSUES / CONSIDERATIONS			
ITEM NO.	BCA CLAUSE	RELEVANT DEEMED-TO-SATISFY REQUIREMENTS	COMMENTARY
1.	C3D9 C3D10 C4D15 Specification 5	The loading dock requires a FRL of not less than 240 minutes.	Consultation with the structural engineer and architect is required. A performance solution is to be provided to rationalise the FRL of specific building elements.
2.	D2D8	<p>Level 36 - The maximum capacity of the storey, based on the deemed-to-satisfy provisions is 200 persons.</p> <p>The number of persons accommodated in accordance with D2D18 is 215 persons.</p>	The number of persons accommodated is only an assumption at this stage. Clarification of the number of people accommodated is to be confirmed by the architect. A performance solution by the fire safety engineer may be provided to justify the reduced egress width.

BCA ASSESSMENT - KEY ISSUES / CONSIDERATIONS

<p>3.</p>	<p>D2D8</p>	<p>Level 37 - The maximum capacity of the storey, based on the deemed-to-satisfy provisions is 200 persons.</p> <p>The number of persons accommodated in accordance with D2D18 is 212 persons.</p> 	<p>The number of persons accommodated is only an assumption at this stage. Clarification of the number of people accommodated is to be confirmed by the architect. A performance solution by the fire safety engineer may be provided to justify the reduced egress width.</p>
<p>4.</p>	<p>D2D8</p>	<p>An unobstructed width of 1m is required on the path of travel to an exit from the hotel kitchen on Level 36.</p> 	<p>Minor design change required at the CC stage.</p>

BCA ASSESSMENT - KEY ISSUES / CONSIDERATIONS

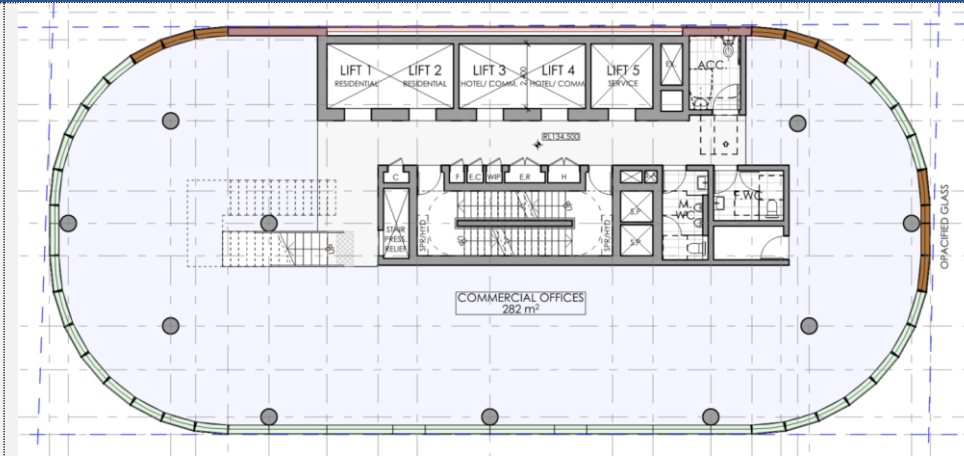
<p>5.</p>	<p>D2D9</p>	<p>The doorway entry into the Hotel Gymnasium on level 2 has a door width of less than 850mm (800mm).</p> 	<p>All doors along the accessway are recommended to achieve a min 850mm clearance as per AS1428.1-2009.</p>
<p>6.</p>	<p>D2D15</p>	<p>Appropriate barriers such as additional bollards are required to prevent vehicles from obstructing the exit in front of the exit adjoining the driveway to the loading/service bay.</p> 	<p>It is in the opinion of this office that compliance with the requirements of this clause can be achieved. A redesign will be required to ensure that appropriate barriers are provided to prevent the exits from being blocked.</p>
<p>7.</p>	<p>E1D2</p>	<p>The coverage of fire hydrants on the Ground level needs to be reassessed and confirmed. Additional fire hydrants will be required to serve the remainder of the storey.</p>	<p>In the event that additional on-floor fire hydrants are provided, a performance solution will be required.</p>



BCA ASSESSMENT - KEY ISSUES / CONSIDERATIONS

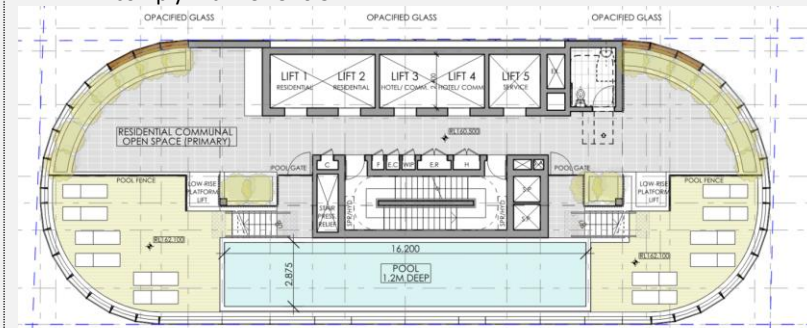
<p>10.</p>	<p>E3D5</p>	<p>The plans identify lifts 1-5 serve all levels of the building. In this regard, at least 2 of the 5 lifts are required to be emergency lifts. Each of the emergency lifts must be in its own fire-resisting shaft. Each emergency lifts must also have a rating of at least 900kg and be provided with a stretcher facility.</p>	<p>The architect is to confirm compliance with the requirements of this clause.</p> <p>It is in the opinion of this office that compliance with the requirements of this clause can be achieved.</p>
<p>11.</p>	<p>F4D4</p>	<p>An additional male urinal is required within the sanitary facilities on commercial levels 33-35. This is based on sanitary facilities serving approximately 29 persons (based on D2D18 calculation of 282m2).</p>	<p>The client / end user to confirm number of persons or fit out of space and a reassessment is to be provided.</p> <p>It is in the opinion of this office that compliance with the requirements of this clause can be achieved.</p>

BCA ASSESSMENT - KEY ISSUES / CONSIDERATIONS



General requirements for the swimming pool located on level 38 and associated with the residential part of the development:

- (a) A swimming pool with a depth of water more than 300 mm and which is associated with a Class 2 or 3 building part of a 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.
- (b) A water recirculation system in a swimming pool with a depth of water more than 300 mm must comply with AS 1926.3.



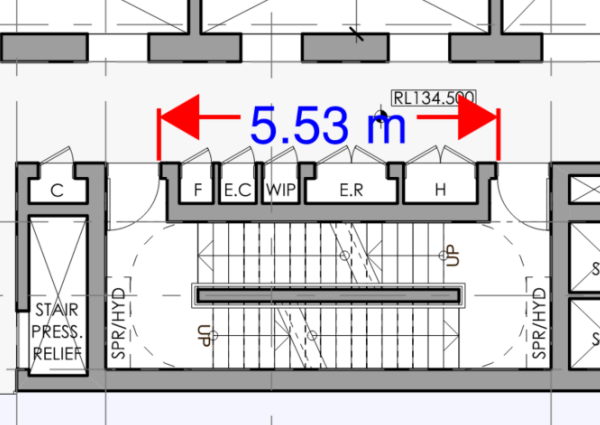
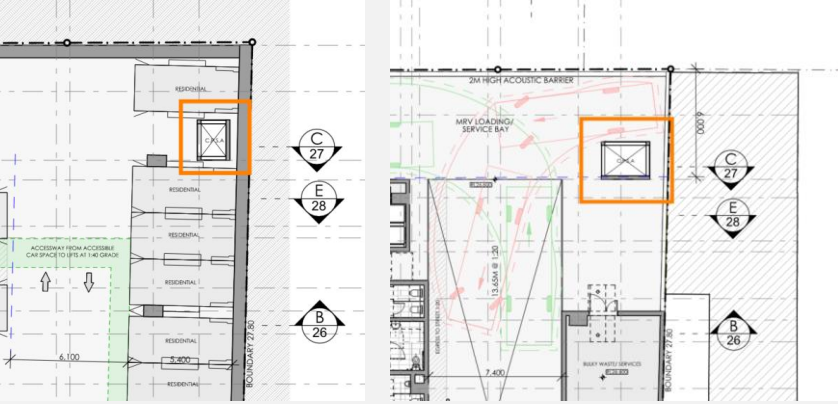
12.

G1D2

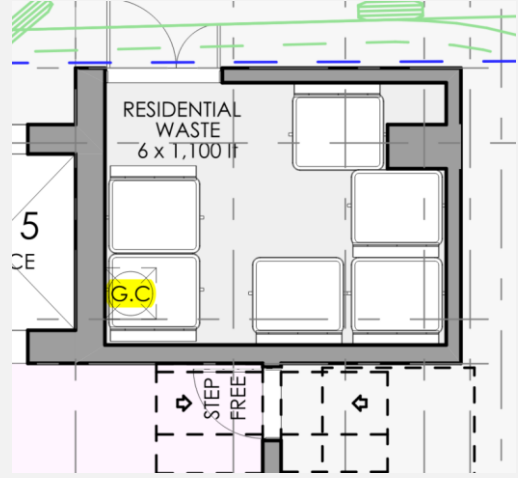
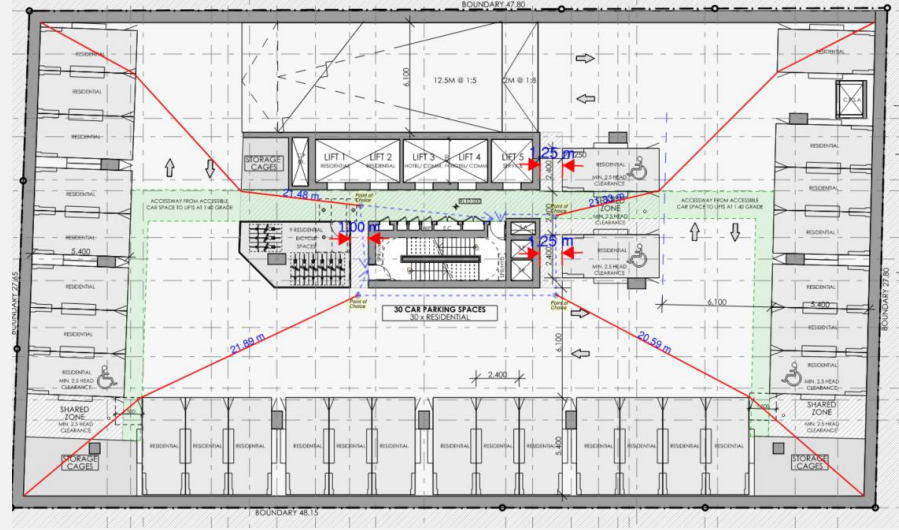
The architect is to confirm compliance with the requirements of this clause.

It is in the opinion of this office that compliance with the requirements of this clause can be achieved.

**PERFORMANCE SOLUTIONS REQUIRED**

ITEM NO.	BCA CLAUSE	RELEVANT DEEMED-TO-SATISFY REQUIREMENTS	COMMENTARY
1.	D2D6	<p>This distance between exits to be less than 9m apart.</p> 	<p>A re-design is required or alternatively, a performance solution is to be provided at the Construction Certificate Stage.</p>
2.	Specification 5	<p>Fire separation of the carpark supply fan connecting Basement level 5 to Ground level is required. A performance solution will be required to not enclose the top of the carpark ventilation shaft and be within 3m of the fire source feature (side boundary).</p>  <p>Basement level 5</p> <p>Ground Level</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p> <p>Mechanical Engineer to confirm compliance with discharge location compliance AS1668.2.</p>

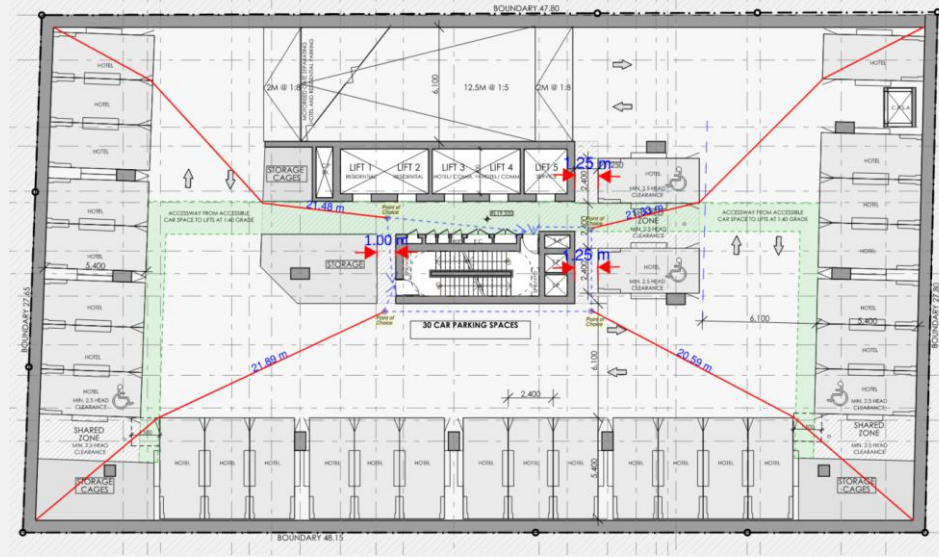
PERFORMANCE SOLUTIONS REQUIRED

<p>3.</p>	<p>Specification 5</p>	<p>A performance solution will be required to permit the garbage chute shaft to remain unenclosed at the base and be included as part of the same fire compartment as the Ground Floor Garbage Room.</p> 	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>
<p>4.</p>	<p>D2D5</p>	<p><u>Basement Levels 4-5:</u> The travel distance to the point of choice exceeds 20m for each corner of the basement. A performance solution is required to address this non-compliance.</p> 	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>

**PERFORMANCE SOLUTIONS REQUIRED**

<p>5.</p>	<p>D2D5</p>	<p><b>Basement Level 3:</b> The travel distance to the point of choice exceeds 20m for each corner of the basement. A performance solution is required to address this non-compliance.</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>
<p>6.</p>	<p>D2D5</p>	<p><b>Basement Level 2:</b> The travel distance to the point of choice exceeds 20m for each corner of the basement. A performance solution is required to address this non-compliance.</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>

PERFORMANCE SOLUTIONS REQUIRED

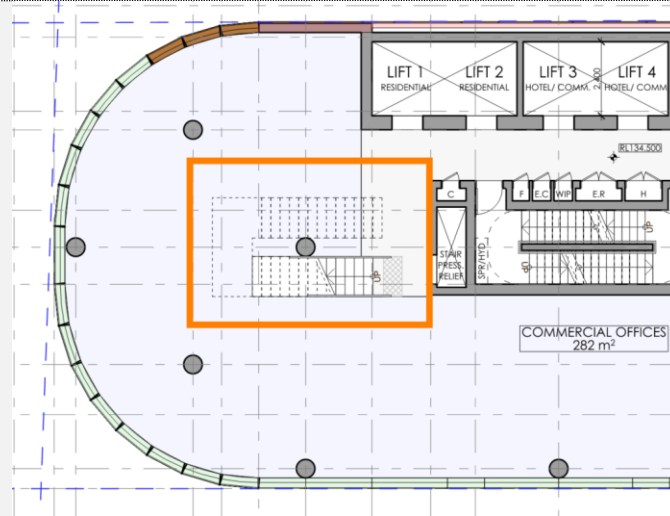


7.	D2D5	<p><u>Extended Travel Distances (Class 2 Portion):</u> The travel distance to the nearest exit is measured more than 6m (up to 7.2m) from the secondary dual key SOU door.</p> <p><u>Extended Travel Distances (Class 3 Portion):</u> The travel distance to the nearest exit is measured more than 6m (up to 9.8m) from the secondary dual key SOU door.</p>	A performance solution is to be provided at the Construction Certificate Stage.
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PERFORMANCE SOLUTIONS REQUIRED

		<p>Class 2 Portion</p> <p>Class 3 Portion</p>	
<p>8.</p>	<p>D2D12(2) D3D5</p>	<p>Each fire-isolated stairway must provide independent egress from each storey served and discharge directly, by way of its own fire-isolated passageway. On the Ground Floor, both rising and descending stair flights share the same egress route and discharge via a common fire-isolated passageway.</p> <p>Furthermore, there is a direct connection between the rising and descending stair flight at the level of where access to a road or open space is reached.</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>
<p>9.</p>	<p>D2D17</p>	<p>The non-fire-isolated stairway serving three storeys (levels 33-35) is not located at a level with direct egress to a road or open space.</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>

**PERFORMANCE SOLUTIONS REQUIRED**



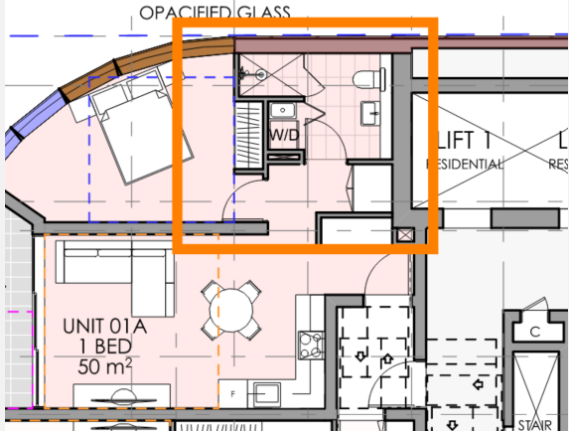
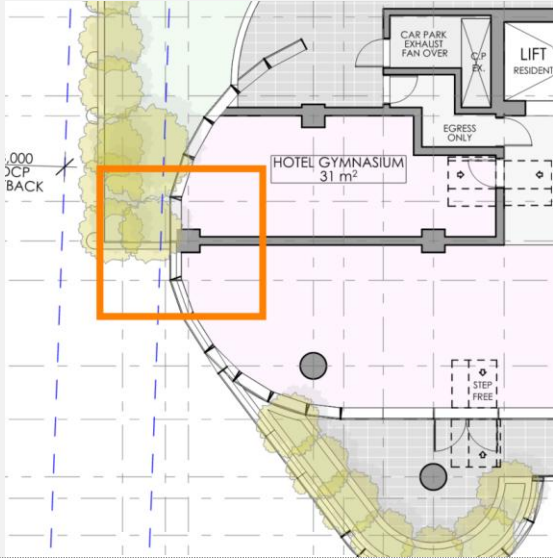
10.	D3D13	<p>To permit service penetrations (rainwater outlets etc) through the Ground Floor slab of the building that is deemed roof as open space to be located within 3m of the path of travel from the egress discharge locations.</p> <p>Note: This clause prohibits all openings within 3m of the path of travel on roof as open space, regardless of whether these openings are protected to achieve the required FRL, as is the case in the subject building.</p>	A performance solution is to be provided at the Construction Certificate Stage.
11.	E1D3	A performance solution will be required to omit fire hose reels from the garbage rooms, electrical/comms rooms, fans rooms and from basement fire services and plant areas where access is only via a fire-isolated stair.	A performance solution is to be provided at the Construction Certificate Stage.
12.	E1D4	A performance solution will be required to permit the omission of sprinklers from the Communications and Electrical Rooms on Basement level 1.	A performance solution is to be provided at the Construction Certificate Stage.

PERFORMANCE SOLUTIONS REQUIRED

<p>13.</p>	<p>E2D3</p>	<p>A performance solution will be required to permit the sound pressure level requirements of AS1670.1 to not be achieved to the external balconies of the residential units throughout the building.</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>
<p>14.</p>	<p>E2D3 Specification 20</p>	<p>A performance solution will be required to permit the omission of smoke detectors from the top of the lift shafts.</p>	<p>A performance solution is to be provided at the Construction Certificate Stage.</p>

FURTHER INFORMATION REQUIRED			
ITEM NO.	BCA CLAUSE	RELEVANT DEEMED-TO-SATISFY REQUIREMENTS	COMMENTARY
1.	C2D10	Provide confirmation the use of AFS Rediwall system or alternative that does not meet NCC non-combustibility standards under AS1530.1 testing.	A performance solution will be required for any system that does not meet NCC non-combustibility standards under AS1530.1 testing
2.	Specification 5	<p>The bounding wall separation detail at the external walls is to be provided once coordination with the facade engineer has been finalised.</p>	Where compliance with Clause C4D12 and Spec. 5 is not provided, a performance solution will be required.
3.	Specification 5	Confirmation is required regarding whether the floor slabs within the wet areas of the residential wet areas are intended to have reduced thickness to allow for a set-down within the floors for waterproofing purposes, aiming to achieve falls between 1 in 50 to 1 in 80.	Should this be the case, a performance solution will be necessary.

FURTHER INFORMATION REQUIRED

			
<p>4.</p>	<p>Specification 5</p>	<p>Details are required regarding the separation at the perimeter slab edge between storeys to confirm compliance in accordance with a tested system to achieve the required FRL by Specification 5.</p> 	<p>At this stage we don't have information to assess compliance. This is to be reviewed further as the design progresses.</p>
<p>5.</p>	<p>E1D2</p>	<p>The booster locations of the fire hydrant and sprinklers is to be shown on the plans.</p>	<p>The next revision of plans are to provide the locations of the fire hydrant and sprinklers.</p>

FURTHER INFORMATION REQUIRED			
6.	E2D3	Provide confirmation of the implementation of the mechanical ventilation system serving the basement, including the use of jet fans instead of a ducted carpark ventilation system compliant with AS1668.2-2012.	If jet fans are proposed, a performance solution will be necessary from the Fire Engineer to demonstrate compliance with E1P4 and E2P2, as well as from the Mechanical Engineer to satisfy Performance Requirement F6P4.
7.	F4D4	Details regarding the number of proposed employees (and the number of patrons for Hotel function level – Level 1) are required to determine the number of sanitary facilities required for the hotel levels throughout the building.	Details are to be provided with the next revision of plans to determine compliance with the requirements of this clause.

The documentation relied upon to prepare this report is continuously being modified. By action in resolving the noted non-compliances and consideration of our recommendations in this report, the proposed development is capable of complying with the Building Code of Australia 2022.

## 5.0 CONCLUSION

This report represents a comprehensive analysis of the proposed architectural designs for the mixed-use development in relation to the Deemed-to-Satisfy (DtS) provisions and Performance Requirements as stipulated by the Building Code of Australia (BCA) 2022.

We have received confirmation from the client that our professional advice and comments are acknowledged and will be addressed. This will be achieved either through the refinement of layouts during the design development stage following the development consent approval or by incorporating fire-performance solutions

We hereby confirm that, subject to the integration of the advised measures, compliance with the BCA is attainable. These measures are to be appropriately incorporated into the Construction Certificate documentation to ensure alignment with the Development Approval.

It is our conclusion that the compliance concerns identified can be satisfactorily resolved in the forthcoming phase of the documentation preparation.

Should there be any questions or a need for further clarification, please do not hesitate to reach out to me at 0499 222 002.



Roland Allam  
**Director**  
**AllCert Pty Limited**

## 6.0 APPENDIX – REFERENCED DOCUMENTATIONS

The findings published in the report is based on a desktop assessment of the architectural and service plans, prepared by **PTI Architecture**, Project No. **P709**, drawings:

DRAWING TITLE	DRAWING NO.	REVISION	DATED
Architectural – <b>PTI Architecture</b> Project No. – <b>P709</b>			
Basements 4-5 Plan	08	A	24/01/2025
Basement 3 Plan	09	A	24/01/2025
Basement 2 Plan	10	A	24/01/2025
Basement 1 Plan	11	A	24/01/2025
Ground Floor Plan	12	A	24/01/2025
Level 1 Floor Plan - Hotel Facilities	13	A	24/01/2025
Level 2 Floor Plan - Hotel Facilities	14	A	24/01/2025
Levels 3-8 Floor Plan - Residential	15	A	24/01/2025
Levels 9-18 Floor Plan - Residential	16	A	24/01/2025
Level 19 Floor Plan - Plant	17	A	24/01/2025
Levels 20-25 Floor plan – Hotel Rooms	18	A	24/01/2025
Levels 26-31 Floor Plan – Hotel Rooms	19	A	24/01/2025
Level 32 Floor Plan - Plant	20	A	24/01/2025
Levels 33-35 Floor Plan - Commercial Offices	21	A	24/01/2025
Level 36 Floor Plan - Hotel Facilities	22	A	24/01/2025
Level 37 Floor Plan - Hotel Facilities	23	A	24/01/2025
Level 38 Floor Plan - Residential C.O.S	24	A	24/01/2025
Roof Plan	25	A	24/01/2025

Sections A & B	26	A	24/01/2025
Sections C & D	27	A	24/01/2025
Sections E & F	28	A	24/01/2025
Section G	29	A	24/01/2025
Elevations – North & West	30	A	24/01/2025
Elevations – South & East	31	A	24/01/2025
Solar Access and Natural Cross Ventilation	41	A	24/01/2025