

A background graphic consisting of a dark blue diagonal shape on the left and a grey area on the right. The grey area contains a faint, repeating pattern of white-outlined 3D rectangular blocks, similar to the City Plan logo icon, overlaid on a blurred image of a city skyline with tall buildings.

# **Building Code of Australia**

## **Compliance Capability Statement**

**Project Address: Waterloo Metro Quarter Over Station  
Development, Building 1 & 2 Basements**







Client: John Holland & Mirvac Joint Venture

Report Number: 200497 Basements

Revision: 01

22 March 2022

## REPORT REVISION HISTORY

Revision	Date Issued	Revision Description		
01	22.03.22	Issued for lodgement with S4.55 application		
		<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Prepared by</b></p>             Aroha Bates            Senior Building Regulations Consultant         </td> <td style="width: 50%; vertical-align: top;"> <p><b>Verified by</b></p>             Chris Michaels            Executive Director         </td> </tr> </table>	<p><b>Prepared by</b></p>  Aroha Bates Senior Building Regulations Consultant	<p><b>Verified by</b></p>  Chris Michaels Executive Director
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## TABLE OF CONTENTS

1. Introduction .....	3
2. BCA Description.....	3
3. BCA Compliance capability .....	3
4. Plans Assessed.....	8
5. Conclusion.....	8

## 1. INTRODUCTION

We have reviewed the proposed Draft S4.55 Plans prepared by Woods Bagot, for compliance capability with the Building Code of Australia (BCA) 2019 Amendment 1 and provide the following description and statements.<sup>1</sup>

This report serves as an assessment for compliance with the Building Code of Australia for the construction of Building 1 & 2 Basements. This report supplements BCA Report RE200497 Basements dated 17 June 2021.

## 2. BCA DESCRIPTION

### 2.1. Classification (A6)

#### Level P1

Class 7a Carparking (bike store is considered ancillary to Class 7a)

Class 5 EOT (considered ancillary to Class 5)

Class 7b Residential Storage

#### Level P2

Class 7a Carparking (Storage area is 340m<sup>2</sup> which is less than 10% of the floor area of the storey, therefore adopt the Class 7a use)

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

Type A construction is applicable.

### 2.3. Effective Height (Schedule 3)

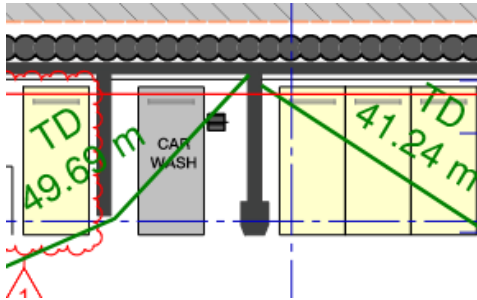
The building will be performance justified as a separated building to Building 1 & 2. Effective height is not relevant in this regard, however, at the time CPS BCA Report Ref: RE200497 Basements dated 17 June 2021 was issued, the effective height of Building 1 was above 57.53m (Level 14 RL 73.4 - GF RL 15.87). The design of the services in the basement should be based on an assumption that the BCA over 25m provisions apply to the basement.

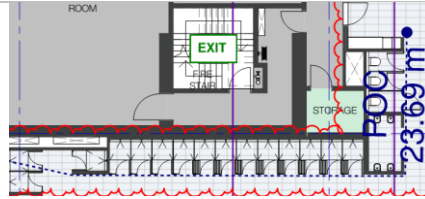
## 3. BCA COMPLIANCE CAPABILITY

It is our opinion that the proposed building works are capable of complying with the Building Code of Australia 2019 Amendment 1. Detailed construction drawings are to be provided at Construction Certificate Application phase demonstrating compliance.

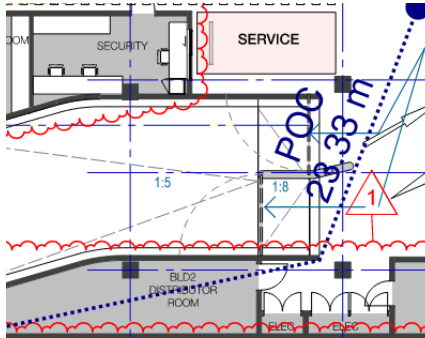
The following table identifies areas of non-compliance with the deemed-to-satisfy provisions of the BCA, which are intended to be addressed by performance justification or via design modifications at the construction certificate stage.

BCA Clause	Title	Assessment and Comment	Status
Table 3, Clause 3.1 of Specification C1.1	Fire resistance levels	<p>Generally building elements are required to achieve the following FRL's -</p> <ul style="list-style-type: none"> <li>▪ Carpark 2hrs</li> <li>▪ Storage 4 hrs</li> <li>▪ EOT Amenities 2 hrs</li> </ul> <p>Fire resistance levels of the storage component are to be rationalised by Performance Solution.</p>	Performance Solution

C1.1 / C2.7	Type of Construction / Separation by fire walls	Building 1 and Building 2 will not have any physical separation at basement level. The basement is to be assessed as a separate building to building 1 and 2. Horizontal slab separation is proposed as part of this separation, which does not comply with C2.7 for separation of buildings.	Performance Solution
C2.2	General floor area and volume limitations	<p>The following maximum fire compartmentation floor area and volume limitations apply to Class 5 (EOT facilities) fire compartments:</p> <ul style="list-style-type: none"> <li>▪ Floor area - 8,000m<sup>2</sup></li> <li>▪ Volume - 48,000 m<sup>3</sup></li> </ul> <p>The following maximum fire compartmentation floor area and volume limitations apply to the Class 7b (storage) fire compartment:</p> <ul style="list-style-type: none"> <li>▪ Floor area - 5,000m<sup>2</sup></li> <li>▪ Volume - 30,000 m<sup>3</sup></li> </ul> <p>The building contains a fire compartment that exceeds the compartmentation limitations.</p>	Performance Solution
D1.4	Exit travel distances	<p>No point on the floor must be more than 20m from an exit, or a Point of Choice (POC) from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40m.</p> <p>Extended travel distance to exits and POC has been identified as follows: -</p> <p><b>Level P1</b></p> <ul style="list-style-type: none"> <li>▪ 50m to Exit - Central Car Spaces</li> </ul>  <ul style="list-style-type: none"> <li>▪ 24m to POC - Male EOT</li> </ul>	Performance Solution

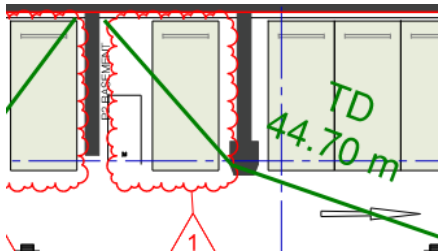


- 24m to POC - Distributor Room

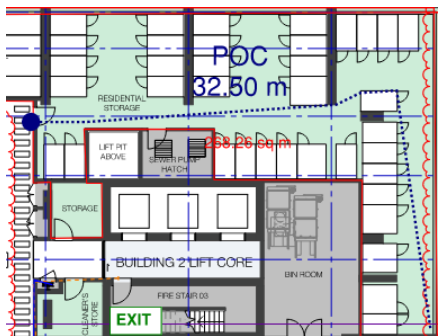


**Level P2**

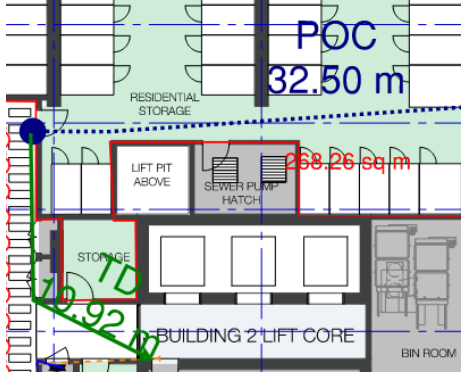
- 45m to Exit - Central Car spaces



- 33m to POC - Residential Storage



- 44m overall travel distance to Exit - Residential Storage

			
D1.5	Distance between alternative exits	<p>Exits that are required as alternative means of egress must be not more than 60m apart.</p> <p>Extended travels distances between alternative exits identified as follows: -</p> <p><b>Level P1</b></p> <ul style="list-style-type: none"> <li>▪ 87m between alternative exits</li> </ul> <p><b>Level P2</b></p> <ul style="list-style-type: none"> <li>▪ 81m between alternative exits</li> </ul>	Performance Solution
E1.3	Fire hydrants	It is proposed to utilise AS2419-2017 version of the standard. Fire services infrastructure is proposed to be in the basement where there is no physical separation between building.	Performance Solution.
E1.5	Sprinklers	Fire services infrastructure is proposed to be located in the basement where there is no physical separation between building.	Performance Solution
E2.2	General requirements - Smoke Hazard Management	<p>Zone smoke control is not proposed to be provided to the Class 5 (EOT) and Class 7b Storage.</p> <p>Fire alarm and evacuation from this part of the development is proposed to be addressed through a performance-based solution. Fire services coverage to this part will also be performance-based solution as it is anticipated a combination of services from buildings 1 and 2 will be utilised.</p>	Performance Solution.

		<p>Fire services infrastructure is proposed to be located in the basement where there is no physical separation between building.</p> <p>Due to the connectivity between buildings, the smoke hazard management and alarm systems of all buildings will not be in accordance with the DTS provisions of the BCA.</p>	
F1.0	Weatherproofing	Performance requirement FP1.4 for the prevention of water through external walls, is required to be complied with Performance Requirements.	Performance Solution.



## 4. PLANS ASSESSED

Assessed plans prepared by Woods Bagot

Plan Title	Drawing No	Revision	Date
Cover Sheet	DA0001	E	11.03.22
Basement - Floor Plan Level 00	DA0090	E	11.03.22
Basement - Floor Plan Level P1	DA0091	F	11.03.22
Basement - Floor Plan Level P2	DA0092	F	11.03.22
Basement - Longitudinal Section 01	DA0101	E	11.03.22
Basement - Cross Section 01	DA0102	E	11.03.22
Basement - Cross Section 02	DA0103	E	11.03.22
Basement - Deep Planter Section 01	DA0121	E	11.03.22
Basement - Deep Planer Section 02	DA0122	E	11.03.22
Basement - Area Plan 01	DA0190	E	11.03.22

## 5. CONCLUSION

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

### 1 Exclusions and Limitations

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  - Disability (Access to Premises – Building) Standards 2010.
  - The existing level of Building Code of Australia compliance unless specifically identified within this report.
  - The operational capabilities or compliance of any existing services installed within the building.

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- Assessment of any existing Performance Solutions, including Fire Safety, addressing compliance with the Performance Requirements of the BCA.
  5. This report is not a Part 4A compliance certificate under the Environmental Planning & Assessment Act 1979 or Regulation 2000.
  6. The opinions, conclusions and any recommendations within this report are based on conditions encountered and information reviewed at the date of preparation of the report. City Plan has no responsibility or obligation to update this report to account for events or changes occurring after the date that the report was prepared.
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    - Conduct a "full BCA audit or compliance assessment" in any way defined, implied, or assumed, for matters outside of City Plans scope.
    - Prepare a holistic BCA, Access or Fire Safety strategy for the building or carry out a full assessment of all information and documentation relating to the project, or the potential BCA, Access, or Fire Safety aspect derivatives thereof.
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