

BCA & Access Assessment Report

Project Silverback
Oakdale East Industrial Estate, Horsley Park
SSDA 120888992

Prepared for:

Goodman Property Services
(Aust) Pty Ltd

Revision 5

02 July 2026

Reference: 260145



bmplusg.com.au

Executive Summary

The following comprises a summary of the key compliance issues identified under the assessment in this report that will be required to be addressed prior to the Construction Certificate for the project.

A. Matters requiring redesign or additional information at CC:

+ BCA (DtS) Clause	+ Description
1. C2D10 & C2D14	Details of the non-combustible external walls, including all ancillary elements and attachments, to the Offices and Warehouses are required to be provided for assessment.
2. Spec. 5, C3D8, & C3D9	Final FRL plans to demonstrate compliance with Spec. 5 are to be provided (detailing locations of all fire rated elements in the building and any proposed Fire Walls between the Class 7b Warehouse areas and Class 7a Carparks). Details are to be provided of the proposed slab edge fire rating/smoke seal detail to the Level 1 slab.
3. C3D13, C3D14	See note above - Final FRL plans of any proposed Fire Separation of Equipment & Electrical infrastructure to be provided at CC Application stage.
4. D2D3	Details of the exit stair locations from the mezzanines on Ground Floor and Level 1 are to be provided for a final egress review.
5. D2D5	Additional exit doors are likely to be required to provide compliant egress distances to the Ground and Level 1 Warehouse.
6. D2D8	A minimum 1m clear pathway is required between the carparking spaces to provide access to the central carpark fire stairs.
7. D2D15	Details of the ramp grades and stairs to the discharge pathway from the building exits to the road are required to confirm compliance with D2D15(3). Note: External pathways from/to accessible parts of the building must comply with AS 1428.1-2021 and must include compliant handrails to ramps and pedestrian gates in the fencing.
8. D3D13	As the Level 1 warehouse discharges on the external walkway, the walkway is subject to the requirements of this clause. The walkway is required to achieve an FRL of not less than 120/120/120 and must not have any openings including any penetrations such as downpipes within 3m of the path of travel for persons using the exit to reach a road or open space. Details confirming compliance to be provided for review at the CC application stage.
9. D3D14-D3D22	Details of stairs, handrails and balustrades (incorporating compliance with AS 1428.1-2021) are to be provided for review at CC application stage.
10. D3D24	Swinging doors are required to the fleet workshop or if roller doors are proposed for egress to the fleet workshop.

+ BCA (DtS) Clause	+ Description
11. Part D4 & AS 1428.1-2021	Details of the design of all accessible areas demonstrating compliance with AS 1428.1-2021, in relation to accessible pathways, stairs, ramps, handrails, doorways, etc. to be provided at CC Application stage.
12. D4D5	Consideration to an exemption for accessibility to the warehousing areas may be appropriate on this project. Confirmation from the operator stating where this would be applied and the reasons why it would be inappropriate for access for people with disabilities within the facility to be provided at CC application stage.
13. E1D15	Details of the proposed Fire Control Centre location to be provided for review.
14. E1D17 / E2D21	Details of the proposed additional fire services and smoke hazard management systems are required to address the additional hazard resulting from the proposed storage or use in the building.
15. F4D6	Design details of the accessible and ambulant sanitary facilities that demonstrate compliance with AS 1428.1-2021 are required to be included on the CC Application plans.
16. Section J	A Section J Compliance Report or JV3 Report will be required to be provided with the CC application.

B. Matters requiring fire safety engineered performance solutions:

+ BCA (DtS) Clause	+ Description
1. C2D2 Spec 5	+ Any proposal to reduce the FRLs of building elements that are required to be fire rated must be addressed as a Performance Solution from the Fire Engineer. Where composite steel and concrete construction is proposed, a performance solution may be implemented to omit the protection of secondary steel elements. + Consideration may be given to omit the fire rating to the sky bridge as a Performance Solution by the Fire Engineer.
2. C2D10 & C2D14	A Performance Solution is required where the use of combustible elements in signage is proposed on the non-combustible façade of the building.
3. C3D5	A performance solution is required to address the Perimeter Vehicular Access where the path travels under the skybridge and carpark ramp on the eastern elevation of the building.
4. C3D11	Where there are any vertical connections such as lift shafts (for the movement of product) is proposed which connect more than 3 storeys they must be separated from the remainder of the building by enclosure in a shaft complying with Spec 5. Any proposal to rationalize the FRLs to these lift shafts are to be addressed as a Performance Solution by the Fire Engineer.
5. C4D13	A Performance Solution will be required for any vertical conveyor systems proposed to pass through the fire rated floor where they are required to be protected per the requirements of this clause.

+ BCA (DtS) Clause		+ Description
6.	C4D15	Services penetrations through elements with a 240/240/240 FRL may require a Performance Solution.
7.	D2D5 & D2D6	The current plans indicate that exit travel distances and distances between alternative exits within the building will not comply with D2D5 & D2D6– respectively.
8.	D2D12	The fire isolated stairs will be required to be the subject of the following performance solutions: + The fire-isolated stairs on the western elevation discharge under an awning rather directly to open space. + The western fire stairs discharge within 6m of the external wall of the dock office
9.	D2D14	+ The stairs serving Satellite Office B and PUD office on Level 1 do not provide a continuous means of travel to the level of a road or open space. + The stairs from Satellite Offices A & B discharges at a point greater than 40m (65m and 70m respectively) to a doorway that provides egress to a road or open space. + The stairs from the mezzanine levels on Ground and Level 1 discharge on the warehouse level at a point greater than 40m to a doorway that provides egress to a road or open space. + The PUD office stairs discharges at a point greater than 40m (approx. 75m) to a doorway that provides egress to a road or open space. + The total travel distance from the Satellite Offices and PUD offices via the non-fire isolated exits exceeds 80m. + The total travel distance from the mezzanine levels on Ground Floor an Level 1 exceeds 80m.
10.	D2D15/D3D13	The Level 1 warehouse exit doors discharge open space via an external walkway which does not connect directly to the public road. The path of travel to the road requires the use of the enclosed fire stairs which requires re-entry into the building rather than providing a continuous discharge via open space.
11.	D3D24	A Performance Solution is required from the Fire Engineer to permit egress via roller shutter in lieu of a swinging door in the Fleet workshop.
12.	E1D2	Design of fire hydrant systems per AS 2419.1-2021 Appendix C as the volume of the building is >108,000m³. Note: The scope of AS 2419.1 – 2021 does not apply to fire hydrant installations for class 7b or 8 buildings having a total volume more than 108 000 m³.
13.	E1D3	Confirmation is to be provided if 50m fire hose reels are proposed to be utilised in the Class 7b areas of the buildings to determine if a Performance Solution is required from the Fire Engineer.
14.	E1D2 & E1D4	Further design development is required with respect to the location of the sprinkler booster assembly to determine whether a Fire Engineered Performance Solution is required. Confirmation is to be provided as to the standard of performance for the sprinkler system to determine whether a Performance Solution is required for the use of alternative design standards.

+ BCA (DtS) Clause	+ Description
15. E2D10 & Spec.21	A Performance Solution may be considered to Rationalised Smoke Exhaust Design

C. Other matters requiring performance solutions:

+ BCA (DtS) Clause	+ Description
1. F3P1	A Performance Solution report is to be provided by the Architect / Façade Engineer to demonstrate how the external walls are designed to prevent the penetration of water into the building.
2. D4D3	+ A compliant accessway is not provided from the allotment boundary to the main points of pedestrian entry at the main office.
3. D4D4	+ A lift is not provided to the Level 1 of the PUD Office and Satellite Offices (x2) where the aggregate floor area of the storey exceeds. Alternatively, confirmation is to be provided from the tenant if a D4D5 exemption is proposed to be applied to these areas.
4. F4D5	An accessible sanitary facility is not provided to the PUD Office and Satellite Offices where sanitary facilities have been provided. A Performance Solution by the Access Consultant is required to address this non-compliance.
5. Section J	A separate report will be required from an Energy Efficiency consultant to outline the applicable requirements for the building.

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+ Status	Final Report – Updated to include Client Comments		
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+ Revision	4	+ Date	25.05.2026
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Description of Project

1.1 Proposal

bm+g have been commissioned by Goodman Property Services (Aust) Pty Ltd to undertake an assessment of the proposed development at Precinct 2, Oakdale East Industrial Estate against the relevant provisions of the Building Code of Australia 2022 Amendment 2 (BCA). This report has been prepared to address the following Development Applications:

- + **Concept Plan Amendments (Mod 6):** Amendments to State Significant Development Application 37486043 (as modified) in accordance with Section 4.24 of the *Environmental Planning & Assessment Act 1979*
- + **Detailed Application (Proposed Works):** State Significant Development Application (SSDA) No. [SSDA number 120888992] based on Industry-specific Secretary's Environmental Assessment Requirements (SEARs) received dated 8 May 2026.

The proposed development is being undertaken by Goodman Property Services (Aust) Pty Ltd (Applicant) on behalf of BGMG 14 Pty Ltd (ACN 661 888 884) as trustee of BGMG 1 Oakdale East Trust No.2 (Owner). The development is located at 2-10 Old Wallgrove Road, Horsley Park (the Site). The folio identifier number is Lot 109 of Deposited Plan 1293112.

The below further outlines the respective works the Development Applications seek approval for.

Concept Plan approval Amendments | State Significant Development Application [37486043] (Mod 6)

As part of the proposed works under SSD 120888992, the following amendments are proposed to the Concept Plan and Stage 1 Infrastructure works approved under SSDA 37486043:

- Amendment to approved Masterplan and Subdivision plan to accommodate revised Precinct 2-5 layout which will consolidate Precincts 2, 4 and 5, resulting in a total of three (3) precincts. (Precinct 1, 2 & 3).
- Amendment of Stage 2 infrastructure scope to accommodate revised and consolidated Precinct 2-5 layout
- Amendment of Development Controls, including those prescribed under Condition A9 & A10 of the consent, specifically:
 - o Building Height from 15m and To 25m (excluding rooftop plant, roof access stairs and solar)
 - o Maximum GLA from 317,867 sqm and to 316,962 sqm
- Increase maximum permissible vehicle from a 30 m super B-double to a 36.5m B-triple (Condition D14)

This application, inclusive of the amendments to the Concept Plan under SSD 37486043, seeks to facilitate the development of Building 2A, 2B & Lot 2C and associated Internal infrastructure changes.

Detailed Application | State Significant Development Application [120888992]

The SSDA seeks approval for the construction, fit-out, operation and use of 2 warehouse buildings and associated internal site infrastructure works to accommodate the proposed building layouts. Specifically, this includes:

- + **Warehouses and Distribution Building – Building 2A**
 - 24/7 warehouse and distribution use
 - Construction, operation, fit-out (warehouse racking and office fit-out) and use of approximately 18,110 sqm warehouse with ancillary office GLA. Proposed ridge height of 14.6m (excluding rooftop plant and solar).

- Includes hardstand, dock offices, loading bays, landscaping, electric vehicle charging, solar panels and signage.
- + **Warehouses and Distribution Building – Building 2B & Lot 2C**
 - 24/7 warehouse and distribution use for an automated mail and parcel processing and sorting.
 - Construction, operation, fit-out (office and warehouse) and use of approximately 142,157 sqm of warehouse and office GLA across two levels spanning a proposed ridge height of 25.0m (excluding rooftop plant, roof access stairs and solar).
 - Warehouse fit-out includes automation and sortation equipment along with associated mezzanine structures.
 - Building 2B will include hardstand, heavy rigid parking, guardhouses, dock offices, loading bays, landscaping, electric vehicle charging, goods collection lockers, solar panels, six lithium-ion battery energy storage systems (BESS) external to the main warehouse building and fleet workshop, weighbridges, fleet workshop, dock temperature control with external units, emergency generators, refuelling bay, truck wash and signage.
 - Dangerous goods (DGs) are proposed to be stored at the site, which are below the threshold quantities under Chapter 3 of the *State Environmental Planning Policy (Resilience and Hazard) 2021*.
 - Ground Improvements to Warehouse 2B building footprint (i.e Pilling), including a 200mm thick layer of Cement Treated Fine Crushed Rock (CTFCR) placed under the entire warehouse footprint.

Internal Estate Infrastructure

- Bulk Earthworks to Precinct 2 (formally Precinct 2, 4 & 5)
 - Approx. 550,000m³ fill importation required as either Virgin excavated natural material (VENM), Excavated Natural Material (ENM) or Resource Recovery Order under S 286A of the PoEO Act 1997
 - Importation proposed to be 24 hours, 7 days a week during the Fill Importation program
 - Export any unsuitable material (i.e Topsoil and Clay)
- Retaining Walls (including importation of Engineered backfill)
- Stormwater Basin D (including fit-out)
- Construction and associated Easement to Drain of Stage 1 stormwater discharge line through Building 2B to Basin C
- Stage 1 road and servicing amendments to reflect revised Precinct 2, 4 & 5 building layout
- Noise barriers
- Lead-in services including additional 11kv feeder via the extension of HV feeders from existing Endeavour Energy switching stations within Roberts Road and Capicure Drive
- + **Other**
 - Expansion and on-going management of DA 347.1/2021 Containment Cell
 - Subdivision of Precinct 2, 4 & 5 to suit revised precinct plan and ultimate lot layout

Related Applications/Activities

Fairfield City Council Development Application DA 347.1/2021 (as modified) – Rehabilitation Works

A Fairfield City Council Development Application DA 347.1/2021 (as modified) has previously been approved over the site facilitating Bulk Earthworks and Rehabilitation (including an initial Containment Cell) Works at the Site to provide relative levels suitable for future industrial development.

These levels are:

- - Precinct 2 (western portion): BE 77.5
- - Precinct 2 (eastern portion): BE 71.5
- - Precinct 3: BE 77.0
- - Precinct 4: BE 70.0

Proposed SSD 120888992 assumes these levels and works in respect of assessment of environmental impacts previously assessed in accordance with Clause 4.63 (a) Environmental Planning & Assessment Act 1979. Further re-assessment is therefore not required.

DA 347.1/2021 assessed the Environmental Impacts associated with the required rehabilitation to achieve the above Bulk Earthworks levels.

Notwithstanding, DA 347.1/2021 (as modified) is currently unable to be fulfilled as the consent approves a shortfall of:

- Fill importation required to achieve the above FCC approved rehab levels
- Contamination cell size required to fulfill rehabilitation obligations under the Fairfield City Council consent and associated Rehabilitation Action Plan.

SSD 120888992 assess and seeks approval to address these shortfalls as part of the Environmental Impact Assessment.

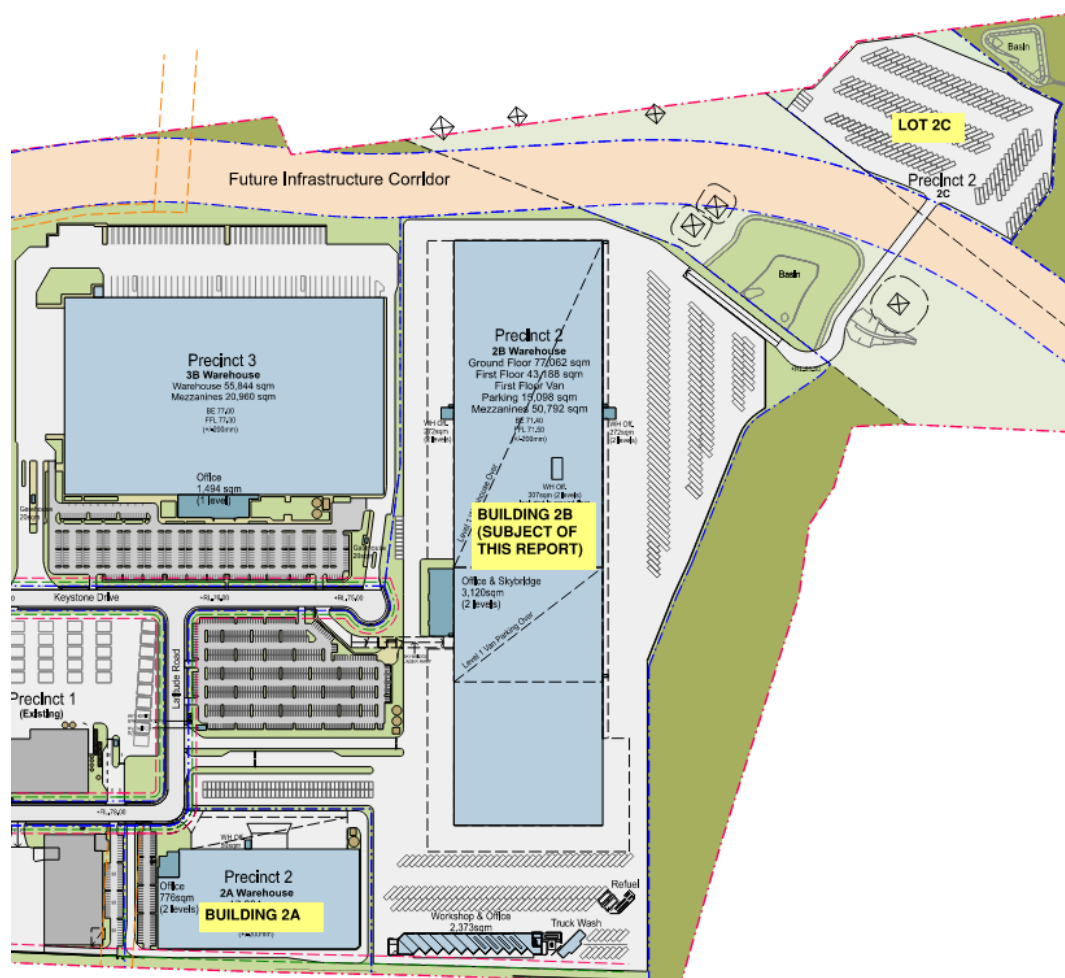


Figure 1: Estate Masterplan, Source: SBA Architects

Aim

The aim of this report is to:

- + Undertake an assessment of the proposed development against the deemed-to-satisfy provisions of the BCA.
- + Identify matters that require plan amendments in order to achieve compliance with the BCA.
- + Identify matters that are to be required to be addressed by Performance Solutions.
- + Enable the certifying authority to satisfy its statutory obligations under Section 19(1) of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

1.2 Project Team

The following **bm+g** team members have contributed to this Report:

- + **Dean Goldsmith** – Director | Building Surveyor-Unrestricted (Peer Review)
- + **Nini Quach** – Building Surveyor (Author)
- + **Michael Potts** – Access Consultant

1.3 Referenced Documentation

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- + Building Code of Australia 2022 (BCA) Amendment 2
- + The Guide to the Building Code of Australia 2022
- + Disability (Access to Premises – Buildings) Standards 2010
- + AS 1428.1:2021 Design for access and mobility - General requirements for access - New building work
- + AS1428.2:1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities
- + AS1428.4.1:2009 Design for access and mobility - Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
- + HB198:2014 Guide to the specification and testing of slip resistance of pedestrian surfaces
- + Architectural Plans prepared by SBA Architects numbered:

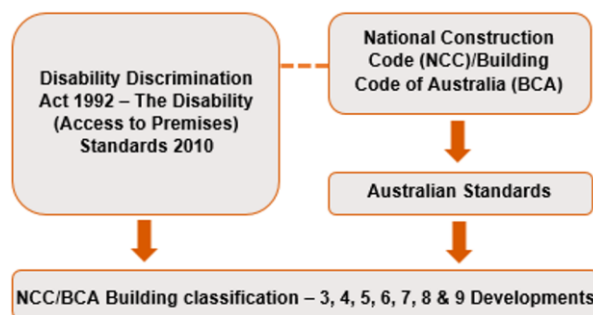
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DA01	A	30.06.2026	DA15	A	30.06.2026
DA02	A	30.06.2026	DA16	A	30.06.2026
DA03	A	30.06.2026	DA17	A	30.06.2026
DA04	A	30.06.2026	DA18	A	30.06.2026

+ Drawing No.	+ Revision	+ Date	+ Drawing No.	+ Revision	+ Date
DA07	A	30.06.2026	DA19	A	30.06.2026
DA08	A	30.06.2026	DA21	A	30.06.2026
DA09.1	A	30.06.2026	DA23	A	30.06.2026
DA09.2	A	30.06.2026	DA24	A	30.06.2026
DA09.3	A	30.06.2026	DA25	A	30.06.2026
DA10	A	30.06.2026	DA26	A	30.06.2026
DA11.1	A	30.06.2026	DA30	A	30.06.2026
DA11.2	A	30.06.2026	DA31	A	30.06.2026
DA12	A	30.06.2026	DA36	A	30.06.2026
DA12	A	30.06.2026	DA37	A	30.06.2026
DA14	A	30.06.2026			

1.4 Regulatory Framework

- + Pursuant to Section 19(1) of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 all new building work must comply with the current BCA however the existing features of an existing building need not comply with the BCA unless upgrade is required by other clauses of the legislation.
- + The assessment has been undertaken in accordance with Clause 24 and 25 of the Building and Development Certifiers Regulation 2020. **bm+g** are the proposed Registered Certifier and the advice provided in this Report is limited to whether submitted documentation complies with the Building Code of Australia or a legislative requirement.

The below figure represents the statutory framework addressing accessibility as noted in the below Act, Code and Standards.



The Disability Discrimination Act 1992 (DDA) is Commonwealth legislation enacted in 1993 that seeks to ensure that all new building infrastructure, refurbishments, services and transport projects provide independent and equitable access. The DDA is a complaints based legislation administered by the Australian Human Rights Commission (AHRC).

Subordinate to the DDA are the Disability Standards, which include; Disability (Access to Premises – Buildings) Standards 2010, Disability Standards for Education 2005, and the Disability Standards for Accessible Public Transport 2002. These Disability standards refer back to the AS 1428 suite of standards and Building Code of Australia.

Since 2011, the Building Code of Australia has adopted the key accessibility provisions of the Disability (Access to Premises – Buildings) Standards 2010, with compliance with AS 1428.1 – 2021, AS 1428.4.1 – 2009, and AS 2890.6 – 2009 becoming mandatory. As such, compliance with the relevant sections of the BCA ensures compliance with the Disability (Access to Premises – Buildings) Standards 2010 and vicariously the DDA.

With respect to existing works, there are statutory upgrade requirements within the Disability (Access to Premises – Buildings) Standards 2010 that apply to all building works which require consent (including Crown building work). This relates to the upgrade of any ‘affected part’ of the building, which includes;

- + The principal pedestrian entry (i.e. entry door and ramp), and
- + The pathway / corridor / lift / ramp which form an accessible path of travel to any area of new work (note: only one accessible path of travel is required to any new part under this requirement).

Section 23 of the Disability Discrimination Act DDA 1992 states;

It is unlawful for a person to discriminate against another person on the ground of the other person’s disability:

- *By refusing to allow the other person access to, or the use of, any premises that the public or a section of the public is entitled or allowed to enter or use (whether for payment or not); or*
- *In the terms or conditions on which the first-mentioned person is prepared to allow the other person access to, or the use of, any such premises; or*
- *In relation to the provision of means of access to such premises.*

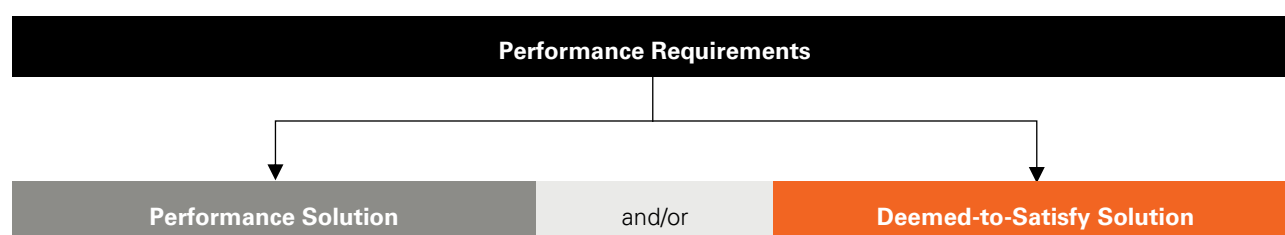
The DDA Act 1992 is a complaints-based legislation whilst compliance with The Disability (Access to Premises) Standards 2010 affords some certainty regarding the minimum compliance requirements it does not prevent a claim being made under the DDA Act 1992. Whilst implementing the minimum compliance requirements under the Disability (Access to Premises) Standards 2010 and BCA will satisfy the minimum compliance requirements there is nothing preventing a greater degree of access than those minimum requirements specified.

- + Note: The below report also includes recommendations for best practice/non mandatory items for consideration by the project team stakeholders and as applicable have been identified in the below report in *italics*.

1.5 Relevant Version of the NCC Building Code of Australia

Pursuant to Section 19 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the day on which the application for the Construction Certificate is made. The current version of the BCA is BCA 2022 Amendment 2, with the next revision of the BCA (2025) coming into effect in May 2027.

1.6 Compliance with the National Construction Code



Compliance with the NCC is achieved by complying with:

- + the Governing Requirements of the NCC; and

- + the Performance Requirements.

Performance Requirements are satisfied by one of the following, as shown in the Figure below:

- + A Performance Solution.
- + A Deemed-to-Satisfy Solution.
- + A combination of the above two options.

1.7 Limitations and Exclusions

The limitations and exclusions of this report are as follows:

- + This report is prepared in accordance with the Conflicts of Interest provisions of Part 4 of the Building and Development Certifiers Regulation 2020. **bm+g** confirm that this report is prepared specifically to address the requirements of Clause 25(5) and (9) of the Regulation with respect to the role of the Registered Certifier. This assessment report is not to be construed as extending any further into providing design advice, which would be contrary to the aims of this legislation.
- + No assessment has been undertaken with respect to the Disability Discrimination Act 1992 (DDA). The building owner needs be satisfied that their obligations under the DDA have been addressed.
- + Please note that whilst the BCA specifies a minimum standard of compliance with AS1428 (Parts 1-3) and Part D4 of the BCA for access and facilities for people with disabilities, compliance with such requirements may not necessarily preclude the possibility of a future complaint made under the DDA 1992. The DDA is a complaint based legislation and is presently not identified by the State Building Codes and Regulations. In this regard the building owner should be satisfied that their obligations under the DDA have been addressed.
- + This report does not consider BCA Part G5 (Volume 1) which makes provision for construction of buildings in bushfire-prone areas, therefore no assessment has been undertaken in consideration of RFS, Planning for Bushfire Protection and AS 3959. Where Part G is applicable to the site, then it is required that assessment / due diligence is undertaken by a specialist consultant to verify compliance.
- + This report does not constitute a detailed assessment of the architectural documentation against the requirements of Section J. It is understood that a suitably qualified consultant will be engaged to determine compliance in this regard.
- + **bm+g** has not undertaken an assessment of any Performance Solution Reports at the time of the preparation of this report.
- + The Report does not address matters in relation to the following Local Government Act and Regulations:
 - Work Health and Safety Act and Regulations.
 - Work Cover Authority requirements.
 - Water, drainage, gas, telecommunications and electricity supply authority requirements.
 - Disability Discrimination Act 1992.
- + **bm+g** cannot guarantee acceptance of this report by Local Council, Fire & Rescue NSW or other approval authorities.
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1.8 Report Terminology

Access for People with Disabilities - Access to a building which is planned to minimise obstacles or hazard to disabled persons.

Accessible – Means having features to permit use by people with disabilities

Accessway – Means a continuous accessible path of travel to or within a building suitable for people with disabilities as defined in AS 1428.1

Braille – A system of touch reading for the blind, which employs raised dots that are evenly arranged in quadrangular letter spaces or cells.

Building Code of Australia – Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act & Regulation.

Climatic Zone – Means an area defined in Figure 2 and in Table 2 (of BCA Schedule 3) for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.

Construction Certificate – Building Approval issued by the Certifying Authority pursuant to Part 6 of the EP&A Act 1979.

Construction Type – The construction type is a measure of a buildings ability to resist a fire. The minimum type of fire-resisting construction of a building must be that specified in Table C2D2 and Specification 5, except as allowed for:

- + certain Class 2, 3 or 9c buildings in C2D6; and
- + a Class 4 part of a building located on the top storey in C2D4(2); and
- + open spectator stands and indoor sports stadiums in C2D8.

***Note:** Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.*

Dedicated Parking Space – a parking space set aside exclusively for the parking of a single vehicle for a person with a disability.

Deemed-to-Satisfy (DtS) Provisions of the BCA – Means the prescriptive provisions of the BCA which are deemed to satisfy the performance requirements.

Effective Height – The vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift, or other equipment, water tanks or similar service units).

Exit – Any, or any combination of the following if they provide egress to a road or open space:

- + An internal or external stairway.
- + A ramp.
- + A fire-isolated passageway.
- + A doorway opening to a road or open space.

Fire Compartment – The total space of the building; or when referred to in

- + The Performance Requirements – any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
- + The Deemed-to-Satisfy Provisions – any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to-Satisfy Provisions of the relevant part.

Fire Resistance Level (FRL) – The grading periods in minutes for the following criteria:

- + structural adequacy; and
- + integrity; and
- + insulation.

and expressed in that order.

Fire Source Feature (FSF) – The far boundary of a road adjoining the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

Hearing Augmentation – The communication of information for people who are deaf or hearing impaired by using a combination of audio, visual, and tactile means

Luminance Contrast - The light reflected from one surface or component, compared to the light reflected from another surface or component.

National Construction Code Series (NCC) – The NCC was introduced 1 May 2011 by the Council of Australian Governments (COAG). The BCA Volume One (Class 2 to 9 Buildings) is now referenced as the National Construction Code Series Volume One — BCA.

Occupiable outdoor area means a space on a roof, balcony or similar part of a building:

- + that is open to the sky; and
- + to which access is provided, other than access only for maintenance; and
- + that is not open space or directly connected with open space.

Occupation Certificate (OC) – Building Occupation Approval issued by the Principal Certifying Authority pursuant to Part 6 of the EPA Act 1979.

Open Space – Means a space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.

People with Ambulant Disabilities - People who have a mobility disability but are able to walk.

Performance-Based Design Brief – Means the process and the associated report that defines the scope of work for the performance-based analysis, the technical basis for analysis, and the criteria for

acceptance of any relevant Performance Solution as agreed by stakeholders.

Performance Requirements of the BCA – A Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must meet.

Compliance with the Performance Requirements can only be achieved by-

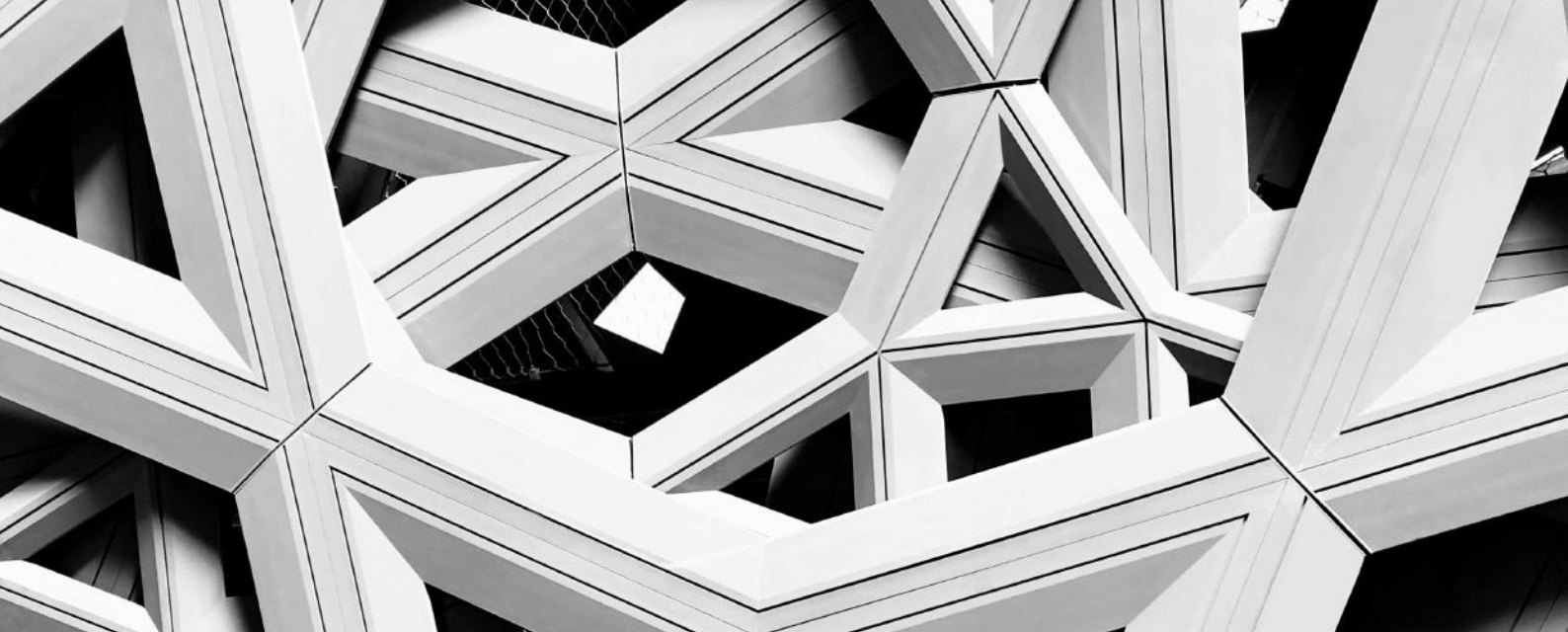
- + complying with the Deemed-to-Satisfy Provisions; or
- + formulating an Performance Solution which-
 - complies with the Performance Requirements; or
 - is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
- + a combination of (a) and (b).

Performance Solution – Means a method of complying with the performance requirements other than by a Deemed-To-Satisfy Solution.

Sensory Impairment - Any significant loss of hearing or vision.

Shared Area (for carparking) – An area adjacent to a dedicated space provided for access or egress to or from a parked vehicle and which may be shared with any other purpose that does not involve other than transitory obstruction of the area, e.g. a walkway, a vehicular aisle, dual use with another adjacent dedicated space.

Slip Resistant – A property of a surface having a frictional force-opposing movement of an object across a surface.



2.0 Building Characteristics

2.1 Proposed Development

The proposed development consists of the construction of a new Parcel Sortation Facility. The warehouse will operate as an automated mail and parcel sorting facility.

The building is classified as follows:

+ BCA Classifications:	Class 5 (Main Office incl Skybridge and Lobby, PUD Office, Satellite Offices) Class 7a (Carpark and Van Parking Staging) Class 8 (Fleet Workshop) Class 7b (Warehouse and associated bump out areas) Class 10a (Truck Wash, Fire Tanks and Pump Room)
+ Rise in storeys:	6 (six) – see C2D3 below
+ Storeys Contained:	4 (Four)
+ Type of Construction:	Type A Construction (Warehouse / Office Building) Type B Construction (Fleet Workshop) Type C Construction (Gatehouse)
+ Importance Level (Structural)	Importance Level 2 (TBC by Structural Engineer)
+ Sprinkler Protected Throughout	Yes (See comments under C3D4 & E1D4)
+ Effective Height	17.5m (RL88.0 – RL70.5)
+ Floor Area	>18,000m ²
+ Volume	>108,000m ³
+ Climate Zone	Zone 5

2.2 Fire Compartment Floor Area Limitations

Maximum permissible size of fire compartment/atria per Table C3D3 is:

+ Classification		+ Type A	+ Type B	+ Type C
7a, 7b, 8	Max. floor area	5,000m ²	3,500m ²	2,000m ²
	Max. volume	30,000m ³	21,000m ³	12,000m ³
5	Max. floor area	8,000m ²	5,500m ²	3,000m ²
	Max. volume	48,000m ³	33,000m ³	18,000m ³

Note: The above fire compartmentation sizes do not apply to large isolated buildings,

*Note** Architect to confirm the volume of the truck workshop does not exceed the above limitations.

2.3 Distance to Fire Source Features

Based upon a review of the plans, it is noted that each elevation of the building is located within the following distances from fire source features on the site.

+ Elevation	+ Fire Source Feature	+ Distance
North	Side or Rear Boundary	>6m
East	Side or Rear Boundary	>6m
West	Side or Rear Boundary	>6m
South	Side or Rear Boundary	>6m

Note: *Fire Source Feature (FSF)* – The far boundary of a road adjoining the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

3.0 BCA Assessment

We note the following BCA compliance matters with relation to proposed building works are capable of complying with the BCA. Please note that this is not a full list of BCA clauses, they are the key requirements that relate to the proposed work and the below should be read in conjunction with the BCA.

3.1 Section B – Structure

Part B1

- + New building works are to comply with the structural provisions of the BCA 2022 and the following referenced standards including:
 - AS 1170.0 – 2002 General Principles
 - AS 1170.1 – 2002, including certification for balustrades (dead and live loads)
 - AS 1170.2 – 2021, Wind loads
 - AS 1170.4 – 2007, Earthquake loads
 - AS 3700 – 2018, Masonry Structures
 - AS 3600 – 2018, Concrete Structures
 - AS 4100 – 1998, Steel Structures and/or
 - AS 4600 – 2018, Cold formed steel Structures
 - AS 2159 – 2009, Piling Design & Installation
 - AS 1720 – 2010, Design of Timber Structure
 - AS/NZS 1664.1 & 2 – 1997, Aluminium Structures
 - AS 2047 – 2014, Windows and External Glazed Doors in buildings
 - AS 1288 – 2006, Glass in buildings
 - AS 3660.1 – 2014, Termite control (or confirmation no primary building elements are timber).
- + Design certification will also be required from the Architect and Services Consultants to confirm compliance with Section 8 of AS1170.4-2007 with regard to the design of non-structural parts and components and their fastenings for horizontal and vertical earthquake forces and inter-storey drift.
- + In accordance with B1D3(a)(iv) a notional additional load of not less than 0.15kPa to support the addition of solar photovoltaic panels is to be applied to the roof structure.
- + *The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary.*

Comment: Structural design details and certification will be required at CC application stage

3.2 Section C – Fire Resistance

C2D2 & Spec 5

Type of Construction Required: The building is required to comply with the requirements of Type A Construction as stated within Specification 5. The table below provides an overview of the requirements of each. Refer to Table 5 of Appendix 1 for the FRL requirements of Type A Construction.

Type A Construction:	
+	Load-bearing external walls and columns must achieve an FRL regardless of distance from boundary / separate building per Table S5C11a.
+	Non-load-bearing external walls (and columns incorporated within) need not achieve an FRL if >3m from a boundary or separate building per Table S5C11b.
+	All external load-bearing columns must achieve an FRL per Table S5C11c.
+	Fire Walls must achieve an FRL per Table S5C11d.
+	All Services risers, lift and stair shafts, must achieve an FRL per Table S5C11e & f.
+	Floors and all internal load-bearing elements (columns, beams, walls, etc.) must achieve an FRL per Table S5C11g.
+	Roof must be of non-combustible construction per S5C15 and combustible Roof Lights must not exceed 20% of the roof area).
+	Internal columns on the floor immediately below the roof need only achieve a 1hr FRL per S5C17.

Type C Construction:	
+	External walls (and columns incorporated within) need not achieve an FRL if >3m from a boundary or separate building. Where required, external walls of Type C Construction only require an FRL from the outside and not in both directions.
+	Floors need not achieve an FRL, subject to Cl. 2.2.
+	Roofs need not achieve an FRL.
+	Internal columns need not achieve an FRL.

Comment: Type A Construction applies to the Warehouse Building – see notes under Spec.5, C2D9 & C2D14 below.

Type C Construction applies to the Gatehouse and Fleetworkshop.

C2D3

Calculation of Rise in Storeys: The rise in storeys of a building 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 calculated in accordance with the requirements set out in this clause.

Comment: A rise in storey of six (6) applies to the building, due to the average internal height between the ground floor and the ground floor mezzanine platform exceeding 6m.

Note: Confirmation is to be provided that the average internal height from the Ground Floor mezzanine to the underside of the Level 1 warehouse slab does not exceed 6m.

The fleet workshop has a rise in storeys of one (1).

C2D10

Non-Combustible Building Elements: All materials and or components incorporated in an external wall or fire-rated wall must be non-combustible. This includes but not limited to:

- + Any external wall claddings.
- + Any framing or integral formwork systems. I.e. timber framing, sacrificial formwork, etc.
- + Any external linings or trims. I.e. external UPVC window linings, timber window blades, etc.
- + Any sarking or insulation contained within the wall assembly.

	This is not an exhaustive list, and any element incorporated within any external wall assembly must be identified and approved prior to the issue of a Construction Certificate. Refer to Table 1 in Appendix 1 for the elements required to be non-combustible. Comment: The external walls of the building (including all elements incorporated in the walls), the lift pits, the non-loadbearing internal walls that are required to be fire rated, any proposed fire walls and all services risers are required to be of <u>non-combustible</u> construction in accordance with C2D10 (1) & (2). See additional comments under C2D14 below regarding attachments to the external walls. Details are to be submitted with the CC application for assessment.
C2D11 & Spec. 7	Fire Hazard Properties: A schedule of all wall, floor, and ceiling linings along with associated test reports are to be provided for review to ensure compliance with the fire hazard property requirements of the BCA. Noting: + Minimum Group Numbers apply to wall and ceiling linings. AS 5637 test reports must be provided to determine compliance. + Minimum Critical Radiant Flux values apply to floor linings. AS ISO 9239.1 test reports must be provided to determine compliance Refer to Table 2 and 3 in Appendix 1 below for the required fire hazard properties. Comment: Design certification required at CC application stage.
C2D14	Ancillary Elements: An ancillary combustible element must not be fixed, installed or attached to the internal or external parts of a non-combustible wall unless it is one of the concession items listed in items (a) to (p). Comment: The architectural elements in the warehouse and office facades will require review to confirm that the proposed external attachments to the external walls achieve compliance with the non-combustibility requirements of this clause – see comments under C2D10 also. Note: Particular attention is drawn to any proposed signage in this regard – details to be provided by the tenant.
C3D3	General Floor Area and Volume Limitations: The building is to achieve fire compartment sizes not in excess of the DtS requirements of this clause. Comment: The proposed building is a Class 7b Large Isolated Building and as such the provisions for maximum fire compartment size under Table C3D3 do not apply. Refer to comments under C3D4 & C3D5 below in relation to the Large Isolated Building provisions applicable to the proposed development. The fleet workshop of Type C construction must have a compartment size that complies with Table C3D3. In this regard, the Class 8 building is a single fire compartment that is less than 2,000m² and 12,000m³, as such compliance is achieved in this regard.
C3D4	Large Isolated Buildings: A Large Isolated Building that contains Class 5, 6, 7, 8 or 9 parts, is required to be— + Protected throughout with a sprinkler system complying with Specification 17; and + Provided with a perimeter vehicular access complying with C3D5(2). Comment: The proposed warehouse building is required to be sprinkler protected throughout and provided with perimeter vehicular access in accordance with Clause C3D5 (see notes below) pursuant to the Large Isolated Building designation under this clause.
C3D5	Requirements for Open Spaces and Vehicular Access: Open space and vehicular access required by C3D4 must comply with the requirements of sub-clauses (a) & (b) of this Part whereby they must be 6m wide within 18m of the external walls of the building and of a suitable bearing capacity and unobstructed height to permit the operation and passage of FRNSW vehicles. Comment: The proposed building does not comply with the provisions of C3D5 and thus the following non-compliance issues are required to be addressed as a Performance Solution by the Fire Engineer to demonstrate compliance with Performance Requirement C1P9: + To allow PVA to travel under the skybridge and carpark ramp on the eastern elevation of the building. + To allow PVA to travel under the awning in the southern elevation

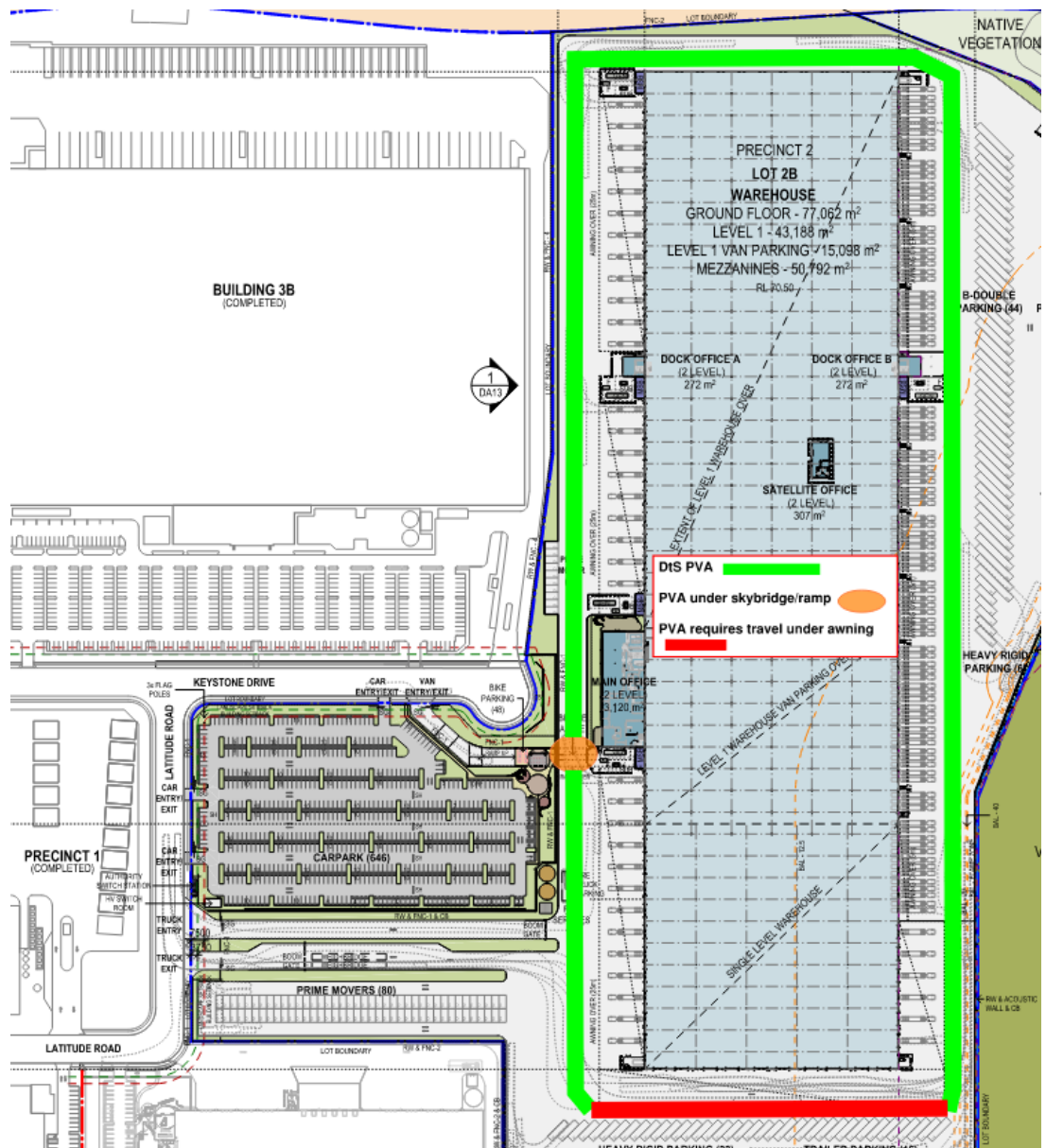


Figure 2: Perimeter Vehicular Access Assessment

Note 1: Any proposed gates are to achieve no less than 6m unobstructed width or the reduced width will need to be included in the above Performance Solution.

Note 2: The driveways providing vehicular perimeter access must be designed with adequate loading capacities, gradients and swept paths to accommodate a fire truck, having regard to the FRNSW Fire Safety Guideline – Access for Fire Brigade Vehicles and Firefighters.

Note 3: The Trial Design for the Fire Engineered Performance Solution must take into consideration and detail the proposed security access to the site and how this may impact on FRNSW vehicular access.

C3D8

Separation by Fire Walls: Separation of Fire Compartments must be constructed in accordance with the following:

- + FRL in accordance with Tables S5C11a – S5C11g of Spec. 5 and extend to the underside of a floor with the same FRL, or to the underside of a non-combustible roof covering.
- + Any openings in a fire wall must not reduce the FRL, except where permitted by the Deemed-to-Satisfy Provisions of Part C3 (i.e. fire doors; protection of services).
- + 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.

	Comment: It is understood that there are no fire walls proposed in the building.
C3D9	Separation of Classifications: Separate classifications will either need to be separated by a fire wall achieving the higher FRL requirement between the two classes, or alternatively the higher FRL must apply to both areas subject to Spec 5. Note: Refer to C3D8 comments above in regards to structural elements crossing a fire wall at roof level. Comment: The proposed building will comprise of a single fire compartment per level due to there being no limitations on fire compartment for large-isolated buildings. In this regard, the higher FRL's applicable to the Class 7b warehouse will apply to the adjoining Class 5 Offices and Class 7a Van Parking on Level 1. See Spec 5 details in Appendix 1 for FRL requirements applicable to the building.
C3D11	Separation of Lift Shafts: The lift shafts are required to achieve a -/120/120 FRL as they connect greater than 3 storeys. Comment: The lifts in the building serving the offices (including the PUD offices) are not required to be fire isolated as they do not connect more than 3 storeys in a sprinklered building. Note: Where there are any vertical connections such as lift shafts (for the movement of product) is proposed which connect more than 3 storeys they must be separated from the remainder of the building by enclosure in a shaft complying with Spec 5. Any proposal to rationalize the FRLs to these lift shafts are to be addressed as a Performance Solution by the Fire Engineer.
C3D13	Separation of Equipment: Equipment as listed below must be separated from the remainder of the building with construction that achieves an FRL of 120/120/120 (or that required by Spec C1.1, whichever is greater) and doorways being self-closing -/120/30 fire doors: + Lift motors and lift control panels; or + Emergency generators used to sustain emergency equipment operating in emergency mode; or + Central smoke control plant; or + Boilers; or + A battery or battery system installed in the building that has a voltage of 12 volts or more and a storage capacity of 200kWh or more. Confirmation is required as to whether any of the above will be applicable to this development. Comment: Details demonstrating compliance are to be submitted with the CC Application plans for the proposed building.
C3D14	Electricity Supply System: An electricity substation, electrical conductors & main switchboards which sustain 'emergency equipment' operating in the emergency mode, located within a building must – + Be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and + Having any doorway in that construction protected with a self-closing fire door having an FRL of not less than -/120/30 - Electrical conductors which supply a substation or main switchboard sustaining emergency equipment operating in the emergency mode – + Have a classification in accordance with AS/NZS 3013 of not less than— ○ If located in a position that could be subject to damage by motor vehicles — WS53W; or ○ Otherwise — WS52W; or + Be enclosed or otherwise protected by construction having an FRL of not less than 120/120/120. Where emergency equipment is required in a building, all switchboards in the electrical installation, which sustain the electricity supply to the emergency equipment switchgear must be separated from the non-emergency equipment switchgear by metal partitions designed to minimise the spread of fault from the non-emergency equipment switchgear.

	Note: For the purpose of this clause, 'emergency equipment' includes (but is not limited to) fire pumps, air handling systems for smoke control, and control & indicating equipment. Comment: The above requirements will need to be taken into consideration as part of the design of the main switch rooms serving the buildings. Where appropriate, details demonstrating compliance are to be included in the CC Application plans for the warehouse building.
C4D9	Openings in Fire-Isolated Exits: Specifies that the doorways that open into fire-isolated exits must be protected by -/60/30 fire doors that are self-closing or automatic. This clause also details the deemed-to-satisfy methods of activation. This does not apply to doors opening to a road or open space. A window in the external walls of fire-isolated exits must be protected in accordance with C4D5 if it is within 6m of and exposed to a window or other opening in a wall of the same building other than in the same fire-isolated enclosure. Comment: Fire Doors are required to be provided to each of the door openings into the fire isolated exit stairs and passageways. Details of the proposed -/60/30 FRL fire door locations are to be provided with the CC application plans in accordance with this requirement.
C4D10	Service Penetrations in Fire-isolated Exits: Fire isolated exits must not be penetrated by any services other than electrical wiring as permitted by D3D8(6), ducting associated with a pressurisation system or water supply pipes for fire services. Comment: Services Consultants to note and ensure compliance with regards to restriction of services penetrating the fire isolated stairs and passageway.
C4D11	Openings in Fire-isolated Shafts: If lift shafts are required to be fire-isolated an entrance doorway must be protected by -/60/- fire doors and the lift indicator panels must be backed by construction having an FRL of not less than -/60/60 if it exceeds 35,000mm². Comment: Details are to be included on the Architectural Plans and certification from the lift consultant to confirm compliance is to be provided with the construction certificate application.
C4D13	Openings in Floors and Ceilings for Services: This clause applies to the floors and ceilings in buildings of Types A, B & C Construction and sets out the methods required to limit the spread of fire through openings in these building elements, required to resist the spread of fire. Comment: Certification will be required at OC application stage – see note below under C4D15 regarding the possible requirement for a Performance Solution for fire stopping in 240/240/240 FRL building elements. A Performance Solution will be required for any vertical conveyor systems proposed to pass through the fire rated floor where they are required to be protected per the requirements of this clause.
C4D15	Openings for Services Installations: All opening for services installations in building elements required to be fire-resisting with respect to integrity and insulation must be protected in accordance with the provisions of Spec. 13. Comment: Services penetrations through elements with a 240/240/240 FRL may require a Performance Solution, given the limitations of tested systems for fire stopping in some 4hr fire rated elements. TBC by Fire Engineer.
Spec. 5	Fire Resisting Construction: The new building works are required to comply with the requirements detailed under Specification 5. The below details the FRL requirements for building elements for each proposed warehouse. Comment: The proposed warehouse facility will be subject to compliance with the Type A Construction provisions of tables S5C11a to S5C11g as summarised below (generally 4 hours for Class 7b buildings): + All loadbearing external walls & loadbearing elements incorporated in or attached to an external wall including the warehouse columns, structural steel elements in the external walls of the office, skybridge and access stair from the carpark are to achieve the required FRL per Table S5C11a. + All non-loadbearing parts of external walls are to achieve the required FRL per Table S4C11b.

- + All loadbearing external columns are to achieve the required FRL per Table S5C11c.
- + Any Fire Walls that are proposed to separate different classifications per C3D9 above are to achieve the required FRL per Table S5C11d for Class 7b.
- + Lift shafts are to achieve the required FRL per Table S5C11e (for loadbearing lift shafts) and S5C11f (for non-loadbearing lift shafts).
- + Fire stair shafts are to achieve the required FRL per Table S5C11e (for loadbearing fire stairs) and S5C11f (for non-loadbearing fire stairs).
- + Services shafts are to achieve the required FRL per Table S5C11e (for loadbearing service shafts) and S5C11f (for non-loadbearing service shafts).
- + All loadbearing internal columns, walls, beams and trusses throughout are to achieve the required FRL per Table S5C11/ S5C11f.
- + Floors are to achieve the required FRL per Table S5C11f and not less than the FRL of the classification with the highest FRLs in the storey below.
- + The roof is required to achieve the required FRL per Table S5C11g or the coverings are required to be non-combustible in accordance with Clause S5C15. Note: Combustible roof lights are not permitted to occupy more than 20% of the roof area.
- + Where a part of the building required to have an FRL depends on direct vertical or lateral support from another part to maintain its FRL, that supporting part must achieve an FRL in accordance with Clause S5C3 of Spec. 5 and be non-combustible, unless one of the concessions in S5C3 (2) can be applied.
- + Details are to be provided of the proposed slab edge fire rating/smoke seal detail to the Level 1 slab.

Note: Any consideration to rationalise the FRLs of building elements is to be addressed as a Fire Engineered Performance Solution by the Fire Engineer.

Consideration may be given to a Performance Solution to omit the fire rating to the sky bridge.

Additionally, due to the configuration and position of the fleet workshop there are no building elements required to be fire rated under the provisions of Spec 5 Table S5C24.

Spec. 7

Fire Hazard Properties: As noted above, this Specification sets out the requirements in relation to the fire hazard properties of linings, materials and assemblies in Class 2 to 9 buildings. Table S7C2 outlines the applicable requirements of Spec. 7 to the different types of Linings, Materials and Assemblies.

Comment: Refer to comments under Clause C2D11 above – certification will be required at both CC and OC Application stages.

3.3 Section D – Access and Egress

D2D3

Number of Exits Required: The building is required to be provided with 2 exits to each storey where the effective height is greater than 25m.

Comment: Compliance readily achievable. It is understood that a number of additional exits will be provided on the Ground Floor and Level 1.

Additionally, the exit stair locations are to be provided to the mezzanine for a final egress review.

D2D4

When Fire-Isolated Stairways and Ramps are Required: This clause specifies the requirements for when fire isolated stairs or ramps are required in buildings based upon the number of storeys that they interconnect and the classification of the building.

	Comment: The stairs to the perimeter of the building pass through more than 3 storeys in a sprinkler protected building and as such are required to be fire isolated. Details demonstrating compliance with the FRL requirements of this clause are to be provided at CC Application stage.
D2D5	Exit Travel Distances: This clause specifies the permitted travel distances allowable from Class 2 to Class 9 buildings. Sub-clauses (1) to (6) specify the maximum distances to be taken into account for the various uses in each Class of building. In a Class 5, 6, 7, 8 & 9 Buildings no point on a floor must be more than 20m for a single exit or to a point of choice to alternative exits; and no point on a floor must be more than 40m to an exit where 2 or more alternative exits are available for egress. Comment: The exit travel distances on each level do not comply with the requirements of Clause D2D5. A summary of the non-compliances are listed below, though it is understood these are subject to further design development. <i>Note: Assumptions have been made to some of the exit locations where not detailed on the plans. Additional exit doors will be required to Ground Floor.</i> + Up to 103m to an exit from the Ground Floor Warehouse + Up to 100m to an exit from the Level 1 Warehouse + Up to 97m to an exit from the Van Parking Staging on Level 1 + Up to 50m from an exit from the Call Centre in the Main Office (Ground Floor) + Up to 28m to a point of choice to alternative exits from the Call Centre in the Main Office (Ground Floor)\ + Up to 52m to an exit from the Open Workstations on the Level 1 Office + Up to 32m to a point of choice to alternative exits from the Open Workstations on the Level 1 Office Note 1: An assessment of the mezzanine levels has not been completed for the purposes of this egress assessment. An updated egress assessment will be required upon receipt of the tenant fit-out and equipment layout on the warehouse and mezzanine levels including all exit stair locations. Note 2: The egress distances on Level 1 have been measured to the perimeter balconies which are connected to the fire-isolated exits. The external walkway has been assessed as roof as open space and a Performance Solution is required for this designation refer to Clause D3D13.
D2D6	Distance Between Alternative Exits: Exits required as alternative exits must be – + 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 + not less than 9m apart; and + not more than – 60m apart. + Located so that the alternative paths of travel do not converge such that they become less than 6m apart. Comment: The distances between alternative exits in the warehouse building are considered to be non-compliant with the requirements of Clause D2D6. It is understood that the below non-compliances will be addressed as a Performance Solution as noted in the Fire Safety Engineering Statement by Innova Services: + Up to 205m between alternative exits from the Ground Level Warehouse + Up to 193m between alternative exits from the Level 1 Van Parking / Staging + Up to 200m between alternative exits from the Level 1 Warehouse + Up to 81m between alternative exits from the Ground Floor Office + Up to 64m between alternative exits from the Level 1 Office Note: An assessment of the mezzanine levels has not been completed for the purposes of this egress assessment. An updated egress assessment will be required upon receipt of the tenant fit-out and equipment layout on the warehouse and mezzanine levels including all exit stair locations..
D2D7 – D2D11	Dimensions of Paths of Travel to an Exit: The minimum clear height through all egress paths is required to be no less than 2m, and a minimum of 1m wide (this width dimension is measured

clear of any obstructions such as handrails and joinery). Aggregate exit widths must be achieved which are driven by occupancy numbers of each floor.

Comment: Population numbers for the proposed building have been calculated based on the square metre rates listed in Table D2D18 to facilitate an assessment of the provisions of D2D7 to D2D11 – see D2D18 below - and as a result it is considered that compliance with D2D7 to D2D11 is readily achievable.

D2D12

Travel via Fire Isolated Exits: 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 –

- + A public corridor, public lobby or the like; or
- + A sole-occupancy unit occupying all of a storey; or
- + A sanitary compartment, airlock or the like.

A fire isolated stairway must also provide independent egress from each storey that it serves and discharge directly –

- + To a road open space; or
- + To a point –
 - + 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
 - + From which an unimpeded path of travel, not further than 20m, is available to a road or open space

External walls and openings exposed to the discharge path of a fire-isolated stairway (less than 6m, measured perpendicular to the path of travel) must be protected with a 1-hour fire-rating for external walls, and C4D5 for openings.

Comment: Several non-compliances have been identified in relation to the fire-isolated stairs, which may be subject to a fire engineered performance solution. These non-compliances have been identified below:

- + The fire-isolated stairs on the western elevation discharge under an awning rather directly to open space.
- + The western fire stairs discharge within 6m of the external wall of the dock office.

D2D14

Travel Via Non Fire Isolated Required Stairways: A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided.

The distance from any point on the floor to a point of road or open space must not exceed 80m. The stair must discharge at a point not more than 20m to a point of road or open space, or from a fire-isolated passage, or 40m from one of two such points.

Comment: The following non-compliances relating to the non-fire isolated stairs are to be addressed as a Performance Solution from the Fire Engineer:

- + The stairs serving Satellite Office B and PUD office on Level 1 do not provide a continuous means of travel to the level of a road or open space.
- + The stairs from Satellite Offices A & B discharges at a point greater than 40m (65m and 70m respectively) to a doorway that provides egress to a road or open space.
- + The stairs from the mezzanine levels on Ground and Level 1 discharge on the warehouse level at a point greater than 40m to a doorway that provides egress to a road or open space.
- + The PUD office stairs discharges at a point greater than 40m (approx. 75m) to a doorway that provides egress to a road or open space.
- + The total travel distance from the Satellite Offices and PUD offices via the non-fire isolated exits exceeds 80m.
- + The total travel distance from the mezzanine levels on Ground Floor an Level 1 exceeds 80m.

D2D15	Discharge from Exits: Requires that an exit must not be blocked at the point of discharge. Barriers such as bollards must be installed to prevent vehicles from blocking the discharge from exits. This clause also provides the methods of construction, location and separation, at exit discharge points for all building Classes. Comments: The Level 1 warehouse exit doors discharge open space via an external walkway which does not connect directly to the public road. The path of travel to the road requires the use of the enclosed fire stairs which requires re-entry into the building rather than providing a continuous discharge via open space. A Performance Solution will be required from the Fire Engineer to address this configuration.
D2D18	Number of Persons Accommodated: Clause D2D18 and Table D2D18 are used to calculate the anticipated number of people in particular types of buildings so that minimum exit widths and the required number of sanitary and other facilities can be calculated. This clause and table are not to be used for non-BCA purposes. Comment: The below population numbers for the facility have been outlined in the PPR Revision 1.3 dated 9 April 2026: Warehouse – 500 persons Office – 100 persons PUD, Satellite, Dock Offices – 10 persons Fleet Workshop – 5 persons
D3D3	Fire-isolated Stairways & Ramps: A stairway or ramp, including landings that are required to be within a fire-resisting shaft must be constructed of non-combustible materials to protect the structural integrity of the shaft. Comment: Architect & Structural Engineer to note. Details are to be provided with the Construction Certificate documentation.
D3D4	Non-Fire Isolated Stairways and Ramps: In a building with a rise in storeys of more than 2, required non-fire-isolated stairways and ramps must be either constructed of + Reinforced or prestressed concrete; or + Steel at least 6mm thick at all points; or + Timber that has a finished thickness of at least 44mm, has an average density of at least 800 kg/m³ at a moisture content of 12% and has not been joined by means of glue unless it has been laminated and glued with resorcinol/phenol formaldehyde; or + Non-combustible materials, and such that if there is a structural failure it will not cause damage to or impair the fire-resistance of the shaft in which the stair is located. Comment: Compliance readily achievable. Details to be provided with the Construction Certificate Application.
D3D5	Separation of Rising and Descending Flights: If a stairway is serving as an exit is required to be fire isolated – here must be no direct connection between— (a) a flight rising from a storey below the lowest level of access to a road or open space; and (i) a flight descending from a storey above that level; and (ii) any construction that separates or is common to the rising and descending flights must be— (b) non-combustible; and (i) smoke proof in accordance with S11C2. Comment: All fire stairs are currently shown to discharge at Ground Level and as such compliance is achieved.
D3D8	Installations in Exits and Paths of Travel: This clause restricts the installation of certain services in fire-isolated exits, non-fire-isolated exits and certain paths of travel to exits. Sub-clauses (1) to

	(6) prescribe which services shall not be installed as well as the circumstances in which certain services may be installed in fire-isolated and non-fire-isolated exits. Comment: This requirement applies to all cupboards containing electrical distribution boards or comms. equipment that are located in a path of travel to an exit. In this regard, such cupboards are to be enclosed in non-combustible materials and are to be suitably sealed against the spread of smoke.
D3D9	Enclosure of Space under Stairs and Ramps: The space below a required, non-fire isolated stairway/ramp must not be enclosed to form a cupboard or other enclosed space, unless the cupboard is bound by construction achieving an FRL of at least 60/60/60, with a self-closing -/60/30 door. Comment: The storeroom under the main office stairs is required to have enclosing walls and ceilings which achieve an FRL of 60 minutes and the doorway will need to be fitted with a self-closing -/60/30 fire door. Details demonstrating compliance are to be shown on the CC Application plans where applicable.
D3D13	Roof As Open Space: If an exit discharges to a roof of a building, the roof must – have an FRL of not less than 120/120/120 and not have any roof lights or other openings within 3m of the path of travel persons using the exit to reach a road or open space. Comment: As the Level 1 warehouse discharges on the external walkway, the walkway is subject to the requirements of this clause. The walkway is required to achieve an FRL of not less than 120/120/120 and must not have any openings including any penetrations such as downpipes within 3m of the path of travel for persons using the exit to reach a road or open space. Also refer to D2D15 for non-compliance relating to discharge of exits via roof as open space.
D3D14, D3D15, D3D16 & D3D22	Stairways, Balustrades, and Handrails: <u>Stairways:</u> + A stairway must have no more than 18, nor less than 2, risers in each flight. + Landings must be not less than 750mm in length. + In a Class 9b building, not more than 36 risers in consecutive flights without a change in direction of at least 30°. <u>Balustrades:</u> + All balustrades must achieve a minimum height of 1m above finished floor level. + Balustrades (except for fire-isolated stairs) must not permit a 125mm sphere to pass through any opening. + Balustrades in fire-isolated exits must comprise no gap larger than 150mm between nosing line (or landing) and bottom rail. Other openings in the balustrade must not exceed 460mm. If the fire-isolated exit also functions as a circulation stair, the 125mm gap requirement applies in lieu of these reduced provisions. <u>Handrails:</u> + Handrails must be located on both sides of all stairways and ramps except for fire-isolated stairs. Handrails must comply with AS 1428.1 as relevant. Comment: Details demonstrating compliance are to be submitted with the CC Application drawings for assessment against the above criteria.
D3D17 – D3D21	Balustrades or Other Barriers: These clauses detail where balustrades are required to be provided and sets out in specific detail the construction requirements. Typically, the following will apply to this class of building: + Balustrades are required where the fall to the level below is more than 1m in height. The minimum height of a balustrade is 1m above the floor of the landing, walkway or the like; and 865mm above the floor of a stairway or a ramp. + For a fall of more than 4m to the surface level below, a window sill must be a minimum of 865mm in height above the height of the floor surface.

	+ Where the floor is more than 4m above the surface beneath the balustrade any horizontal or near horizontal members between 150mm and 760mm above the floor must not facilitate climbing. + Balustrades must be constructed so as to not permit a sphere of 125mm diameter to pass through. The exception to this is within fire isolated exits within the building, or internal stairs within a Class 7b or 8 building, where the rails can be positioned a maximum of 460mm apart, so long as a bottom rail is located so a sphere of 150mm cannot pass through the opening between the nosing of the stair treads and the rail or between the floor of the landing, balcony or the like. + Note: any wire barriers must be complaint with D3D21 and tables D3D21(a) to D3D21(c). Comment: Details demonstrating compliance are to be submitted with the CC Application drawings for assessment against the above criteria.
D3D22	Handrails: This Clause sets out the requirements regarding the location, spacing and extent of handrails required to be installed in buildings. Comment: Architect to note, details demonstrating compliance will be required to be included in the CC plans. Handrails serving all stairs and ramps both internally and externally to the buildings are required to comply with the accessibility requirements of Clause D4D4 and AS 1428.1-2009.
D3D23	Fixed Platforms, Walkways, Stairways and Ladders: A fixed platform, walkway, stairway, ladder, any going and riser, landing, handrail or barrier attached thereto may comply with AS 1657 if it only serves a machinery room, boiler house, lift-machine rooms, plant rooms or the like. Comments: Details of where any AS 1657 compliant stairs or ladders are to be used for access/egress in the building are to be included on the CC Application plans. It is understood these provisions may be applied to any maintenance ladders or walkways used to access mechanical equipment in the warehouse areas.
D3D24	Doorways and Doors: This clause applies to all doorways that form an exit and refers to the types of doors that cannot be used in buildings of prescribed uses, the use of power operated doors and the force required to operate sliding doors. If an exit door is power operated, it must be opened manually under a force of not more than 110N if there is a malfunction or failure to the power source; and it must open automatically if there is a power failure to the door and upon the activation of a fire or smoke alarm anywhere in the fire compartment served by the door. Comment: Swinging doors are required to the fleet workshop or if roller doors are proposed for egress to the fleet workshop, a Performance Solution is required from the Fire Engineer to permit egress via roller shutter in lieu of a swinging door.
D3D25 & D3D26	Doors and Latching: All egress doorways must swing in the direction of egress and must be readily openable without a key from the side that faces a person seeking egress, by a single handed downward or pushing action on a single device which is located between 900mm and 1100mm from the floor. Comment: Details demonstrating compliance are to be included on the CC Application plans..
D4D2, D4D3	General Building Access Requirements: The extent of access required depends on the classification of the building. Buildings and parts of building must be accessible as set out in sub-clauses (1)-(10) unless exempted by Clause D4D5. Access is required to and within all areas normally used by the occupants, for Class 5, 6, 7b & 9b buildings and any levels in a Class 7a building containing accessible carparking spaces. Comment: The following non-compliances have been identified and will need to be addressed with Design Development or addressed as a Performance Solution by the Access Consultant with the CC Application: + A compliant accessway is not provided from the allotment boundary to the main points of pedestrian entry at the main office.
D4D4	Parts of the Building to be Accessible: This clause specifies the requirements for accessways within buildings which must be accessible, in accordance with AS 1428.1-2021. In addition, any storey with a floor area more than 200m² must be served by a passenger lift that is designed to

comply with Part E3, and all accessways must include passing & turning spaces per AS 1428.1-2021.

Comment: The following is a summary of key matters to be considered with respect to the design of the building to achieve compliance with D4D4 requirements. Details demonstrating compliance will be required at the CC Application stage.

- + Every ramp, except a fire-isolated ramp, must comply with clause 7 in AS 1428.1-2021.
- + Every stairway, except a fire-isolated stairway, must comply with clause 9 of AS 1428.1-2021.
- + An AS 1735.12 compliant passenger lift is required to serve the accessible parts of the upper levels of the warehouse (except where a D4D5 concessions has been applied – see notes below. Note: The lifts must also comply with Clauses E3D7 and E3D8 – see below.
- + Accessways must have passing spaces complying with AS1428.1-2021 at a maximum 20m intervals on those parts of the accessway where a direct line of sight is not available and turning spaces complying with AS1428.1-2021 within 2m of the end of accessways and at a maximum 20m intervals along the accessway.
- + Clause D4D4(g) and (h) requires that the pile height or pile thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm. Moreover, the carpet pile height or pile thickness dimension shall not exceed 11mm, the carpet backing thickness dimension shall not exceed 4mm and their combined dimension shall not exceed 15mm.
- + The minimum width of an accessible doorway must have a clear opening width of not less than 850mm in accordance with AS 1428.1.
- + Circulation space to the doorways that are required to be accessible are to comply with Section 10 of AS1428.1-2021.
- + Turning Spaces and Passing Spaces in all areas are required to be provided on each level of the building in accordance with Clauses 3.4 & 3.5 of AS 1428.1-2021.

Stairways

- + Every common area stairway must be constructed in accordance with Clause 8 of AS 1428.1-2021, except if they serve the areas in the building that a D4D5 Exemption has been applied to. Details will need to be confirmed on the plans for CC.
- + Stairs shall have opaque risers (i.e. solid).
- + Stair nosings shall comply with Figure 27 in AS 1428.1-2021, which achieve a colour contrast luminance of 30% to the background (tread).
- + Stairways are to be served by Tactile Ground Surface Indicators in accordance with AS 1428.4.1, except if they are within a fire isolated exit.

Ramps

- + Every common area and entry ramp must be constructed in accordance with Clause 7.3 of AS 1428.1-2021, except if they serve the areas in the building that a D4D5 Exemption has been applied to or are located in fire isolated exits. Details will need to be confirmed on the CC Application plans.

Handrails

- + Handrails shall be installed along stairways as follows:
 - o Shall be continuous through the flight and where practicable, around landings and have no obstruction on or above up to a height of 600mm,
 - o Installed along both sides of the stairway (giving consideration also to 1m unobstructed width)
- + Shall have a compliant hand clearance in accordance with Figure 29 of AS 1428.1-2021.

The following non-compliances have been identified and will need to be addressed with Design Development or addressed as a Performance Solution by the Access Consultant with the CC Application:

- + A lift is not provided to the Level 1 of the PUD Office and Satellite Offices (x2) where the aggregate floor area of the storey exceeds. Alternatively, confirmation is to be provided from the tenant if a D4D5 exemption is proposed to be applied to these areas.

D4D5	Exemptions: This clause provides details on buildings or parts of buildings not required to be accessible under the BCA where providing access would be inappropriate because of the nature of the area/use or the tasks undertaken. Comment: Consideration to an exemption to the Warehouse areas (including mezzanines, PUD & Satellite Offices and Dock offices) may be appropriate on this project. Confirmation from the tenant will be required at the CC Application stage that includes a request for concession, where this would be applied and the reasons why it would be inappropriate for access for people with disabilities within the facility.
D4D6	Accessible Parking: This clause provides details of the number of accessible carparking spaces required in a carpark depending on the classification of the building. Comment: In the case of Class 5 & 7b buildings 1 compliant accessible space (designed in accordance with AS 2890.6-2009) is required for every 100 parking spaces or part thereof. Complies.
D4D7	Signage: Braille and tactile signage must be provided to required accessible sanitary facilities, spaces with hearing augmentation, ambulant sanitary facilities, pedestrian entrances that are not accessible, and to each door required by Clause E4D5 to be provided with an exit sign. The latter is to state EXIT and state the level e.g. LEVEL 1. Comment: Signage will be required to identify exits, accessible facilities, an ambulant accessible facility and the paths to accessible pedestrian entries (where required) – Refer to BM+G's Access Report.
D4D8	Hearing Augmentation: A hearing augmentation system must be provided where an inbuilt amplification system (excluding emergency warning systems) is present in the following areas: + In a room in a Class 9b + In an auditorium, conference room, meeting room, or judicatory room, + In a ticket office, teller's booth, reception area of the like where the public is screened by the service provider. A hearing augmentation system is required to comply in the following way: + An induction loop – it must serve >80% of the floor area of the space served by the inbuilt amplification system; or + A system requiring the use of receivers or the like. It must be available to not less than 95% of the floor of the space served and provide the applicable number of receivers; – 500 people – 1 receiver for every 25 persons and a minimum of 2 receivers; and – 500-1000 people – 20 receivers plus 1 receiver for every 33 people in excess of 500; and – 1000-2000 people – 35 receivers plus 1 receiver for every 50 people in excess of 1000; and – >2000 people – 55 receivers plus 1 receiver for every 100 people in excess of 2000. Any screen or scoreboard capable of displaying public announcements must be capable of supplementing any public address system. The Hearing Augmentation symbol shall be provided on a sign in ultramarine blue in accordance with clause 5.1 of AS 1428.5-2010, where a system is installed. Comment: Electrical Consultant to note, details and design certification demonstrating compliance will be required to be included in the CC plans.
D4D9	Tactile Indicators: This clause provides for the installation of tactile indicators in buildings required to be accessible and must be provided to warn people who are blind or have a vision impairment that they are approaching a stairway, escalator, passenger conveyor, ramp, overhead obstruction or an accessway meeting a vehicular way, except for areas exempted by D4D5. Comment: Subject to D4D5 above, stairways and ramps serving the building, any overhead projections less than 2m in height and any paths leading directly to a driveway or roadway without a kerb will need to be provided with Tactile Ground Surface Indicators in accordance with AS1428.4.1-2009. Details and design certification demonstrating compliance will be required to be included in the CC plans.

D4D12	Ramps: Ramps may be used as part of an accessway where there is a change of level and must comply with the requirements set out in AS1428.1-2021. Comment: Architect to note, details and design certification demonstrating compliance will be required to be included in the CC plans.
D4D13	Glazing on an Accessway: This part requires the provision of a contrasting strip, chair rail, handrail or transom across all frameless or fully glazed doorways and surrounding glazing capable of being mistaken for an opening. Comment: Architect to note.

3.4 Section E – Services and Equipment

E1D2	Fire Hydrants: + E1D2(1) – A fire hydrant system must be provided to serve a building having a total floor area greater than 500m² and where a fire brigade is available to attend a building fire. + E1D2(2) – Requires that the fire hydrant system must be installed in accordance with the provisions of AS2419.1-2021 and details where internal hydrants must be located. + E1D2(3) – details concessions to AS 2419.1-2021 compliance associated with Class 8 Electricity Network Substations, and Hydrant Booster assembly locations where buildings are sprinkler protected. + E1D2(4) – states that internal fire hydrants must serve the level in which they are installed. Comment: The proposed warehouse building is required to be served by a fire hydrant system, designed in accordance with AS 2419.1-2021 Appendix C. Due to the volume of the Warehouse exceeding 108,000m³, a Performance Solution is required to facilitate the design of the system. Detailed plans showing the hydrant system layout (incl. the booster assembly and pumps) are to be provided with the relevant CC application(s). The plans must also demonstrate how coverage is achieved to all areas of the building. Note: A performance solution may be required from the Fire Engineer for the lack of compliant hydrant coverage to any automation areas in the warehouse.
E1D3	Fire Hose Reels: A fire hose reel system must be provided to serve a building where one or more internal fire hydrants are installed or in a building with a floor area greater than 500m². This clause requires that the fire hose reel system must be installed in accordance with AS 2441 and sets out the detail for location and uses of fire hose reels. Comment: The proposed building is required to be served by a compliant fire hose reel system within the Class 7a & 7b areas only (excluding the Class 5 Office areas). Note: A performance solution may be required from the Fire Engineer for the lack of compliant hose reel coverage to any areas in the warehouse or to permit 50m hose reels throughout. Details demonstrating compliance are to be provided at the CC application Stage.
NSW E1D4, E1D12 & E1D13	Sprinklers: A sprinkler system must be installed in a building or part of a building when required by Clauses E1D5 to E1D13 and comply with Specification 17 or 18. Specification 17 sets out requirements for the design and installation of sprinkler systems in Class 2-9 Buildings, and details the required design standards, including AS 2118.1-2017 and AS 2118.6-2012. Comment: As the building is designated as a Large Isolated Building, it is required to be sprinkler protected throughout in accordance with Spec.17. Details demonstrating compliance are required to be submitted with the CC application. In accordance with Clause 4.14.1 of AS2118.1-2017, sprinkler boosters are required to comply with the requirements of AS2419.1-2021 for a hydrant booster. The compliance of the booster assembly will be reviewed further once the location is confirmed, noting that it must be situated within sight of the main entrance of the building and not more than 10m from a hardstand.

	A Performance Solution will be required if any alternative design standards are proposed to achieve compliant coverage for the future fit-out.
E1D14	Portable Fire Extinguishers: To be provided and designed in accordance with Sections 1, 2 and 3 of AS 2444-2001. Comment: Fire extinguishers will be required to be installed in the proposed building in accordance with sub-clauses (1), (3) & (5) and AS 2444-2001 in the class 5 office areas.
E1D15	Fire Control Centre: A fire control centre is to be provided based on the total building floor area comprising more than 18,000m². A fire control centre must: + Be located in a building so that egress from any part of its floor to a public road or open space does not involve changes in level which in aggregate exceed 300mm. + Provide an area from which fire-fighting operations or other emergency procedures can be controlled. Must not be used for any other purpose. Comment: As the total floor area of the building exceeds 18,000m² it is required to be provided with a Fire Control Centre that complies with Spec 19 (Clauses S19C2 – S19C5). Further details which demonstrate compliance with the requirements of Spec. 19 will be required to be included on the CC Application plans.
E1D17	Provisions for Special Hazards: Suitable additional provisions must be made for fire-fighting if unique problems could arise due to; + The nature or quantity of materials stored, displayed or used in a building on the allotment; or + The location of the building in relation to a water supply for firefighting purposed. Comment: It is noted that if Hazardous/Dangerous Goods are proposed to be stored/utilised in significant quantities, details will be required from both the sprinkler system designer and the Fire Engineer, confirming that the proposed firefighting systems have the required capability to address the additional hazard resulting from the Hazardous/Dangerous Goods storage.
E2D3	General Requirements: Class 2 to 9 buildings must comply with the provisions of this Clause to remove smoke during a fire, to control the operation of air handling systems and to prevent the spread of smoke between compartments, as noted below: + 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 be designed and installed— – to operate as a smoke control system in accordance with AS 1668.1; or – such that it— ▪ incorporates 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. + For the purposes of the above, each sole-occupancy unit in a Class 2 or 3 building is treated as a separate fire compartment. + 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. + 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. Comment: Design certification for the operation of the air-handling systems, in accordance with the above is to be provided at CC Application, and details referenced in the trial design of the fire engineering.

E2D4, E2D9, E2D10	Smoke Hazard Management – Fire Isolated Exits, Buildings <25m Effective Height & Large Isolated Buildings: These clauses set out the requirements for smoke hazard management systems for fire isolated exits, large isolated buildings and buildings with an effective height of more than 25m. Comment: As the floor area of the building exceeds 18,000m² and 108,000m³ an automatic smoke exhaust system complying with Spec. 21 (incorporating a smoke detection system) is required to be provided. Details and design certification shall be provided with the CC application. Consideration to a Performance Solution addressing the required smoke hazard management systems may be given. Such a Performance Solution would need to be prepared by the Fire Engineer to demonstrate compliance with Performance Requirement E2P2.
E2D12	Class 7a buildings: A class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS1668.2, must comply with Clause 5.5 of AS1668.1. Comment: The Class 7a Van Parking staging on Level 1 is required to be provided with a mechanical ventilation system in accordance with AS1668.2.
E2D21	Provisions for Special Hazards: Additional smoke hazard management measures may be necessary due to the— + Special characteristics of the building; or + Special function or use of the building; or + Special type or quantity of material stored, displayed or used in a building; or + Special mix of classifications within a building or fire compartment, which are not addressed in E2D4 to E2D20. Comment: Details of the proposed additional smoke hazard management systems are required to address the additional hazard resulting from the proposed storage in the building.
E3D3	Stretcher Facilities in Lifts: Stretcher facilities, complying with this clause, must be provided in lifts in at least one emergency lift as required by E3D3 or in building where lifts serve any storey above an effective height of 12m. A stretcher facility must accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600mm wide x 2000mm long x 1400mm high above the floor level. Comment: The lift in the main office does not serve storeys with an effective height of 12m and as such stretcher facilities in lifts are not required.
E3D4	Warning Against use of Lifts in Fire: Warning signs required be provided must be displayed where they can be readily seen and must comply with the details and dimensions of Figure E3D4. Comment: Applies to the proposed lift in the building - Lift Contractor to note.
E3D6	Landings: Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Parts D2 & D3. Comment: Design certification from the lift supplier shall be provided with the documentation submitted with the Construction Certificate application.
E3D7	Passenger Lift Types and Their Limitations: In an accessible building, every passenger lift must be one of the types identified in sub-clause (1) and not rely on a constant pressure device for its operation if the lift car is fully enclosed. Comment: Design certification from the lift supplier shall be provided with the documentation submitted with the Construction Certificate application.
E4D2 – E4D8	Emergency Lighting and Exits Signs: Emergency lighting and exit signage to be provided in accordance with E4D2 - E4D5 complying with AS 2293.1 – 2018. Comments: Emergency Lighting is required throughout the building in accordance with E4D2, E4D4 and AS/NZS 2293.1-2018.

E4D4	Design & Operation of Emergency Lighting: Every required emergency lighting system must comply with AS 2293.1-2018. Comment: Electrical Consultant to note.
E4D5	Exit Signs: An exit sign must be clearly visible to persons approaching the exit and must be installed on, above or adjacent to each door providing egress from a building. Sub-clauses (a) to (d) set out the situations where exit signs are required to be installed. Comment: Electrical Consultant to note. Details demonstrating compliance will be required to be included in the CC plans.
E4D6	Direction Signs: If an exit is not readily apparent to persons occupying or visiting the building then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, and the like, indicating the direction to a required exit. Comment: Electrical Consultant to note. Details demonstrating compliance will be required to be included in the CC plans.
E4D8	Design & Operation of Exit Signs: Every required exit sign must comply with AS 2293.1-2018 and be clearly visible at all times when the building is occupied by any person having the legal right of entry into the building. Comments: Electrical Consultant to note, details demonstrating compliance will be required to be included in the CC plans.

3.5 Section F – Health and Amenity

F1D3	Stormwater Drainage: A roof balcony, podium or similar must have a system of stormwater drainage and the structural substrate must be graded with a minimum fall of 1:80 to a drainage outlet. Comment: Details of stormwater disposal are required to be prepared by a suitably qualified consultant and submitted with documentation for the CC.
F1D4	Exposed Joints: Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must— + Be protected in accordance with Section 2.9 of AS 4654.2; and + Not be located beneath or run through a planter box, water feature or similar part of the building Comment: Details of compliance with the above are to be prepared by a suitably qualified consultant and submitted with documentation for the CC.
F1D5	External Waterproofing Membranes: External waterproofing membranes are required to comply with AS 4654.1 & 2. Comment: Details of compliance with the above are to be prepared by a suitably qualified consultant and submitted with documentation for the CC.
F1D6	Damp-Proofing: + This sub-clause requires that moisture from the ground must be prevented from reaching certain parts of buildings as listed. + This sub-clause requires that all damp-proofing materials and termite shields used as damp-proofing must comply with AS/NZS 2904 and AS 3660.1. + This sub-clause lists the buildings and parts of a building that do not need to comply with (a). Comment: Note.

F1D7	Damp Proofing of Floors on the Ground: If the 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. Damp-proofing need not be provided if weatherproofing is not required or the floor is the base of a stair, lift or similar shaft which is adequately drained by gravitation or mechanical means. Comment: Note.
F2D3 & F2D4	Wet Area Construction: These clauses set out the construction requirements for wet areas in Class 2-9 Building, in relation to floor and wall materials, surface grading, floor wastes and drainage. Comment: Note- Design Certification required at CC Application stage.
F2D4	Floor Wastes: Where a floor waste is provided, the fall of the floor plane to the floor waste is required to be between 1:80–1:50. Comment: Note.
F3D2	Roof Coverings: This clause details the materials and appropriate standards, with which roofs must be covered with. The roofing requirements are set out in sub-clauses (a) to (g) which identifies the types of materials that may be used and the adopted Australian Standards that apply to their quality and installation. Comment: Note- design certification required at CDC Application stage.
F3D3	Sarking: Sarking-type materials used for weatherproofing of roofs must comply with AS/NZS 4200 parts 1 and 2 Comment: Note.
F3D4	Glazed Assemblies: Glazed assemblies in an external wall must comply with AS2047 requirements for resistance to water penetration for windows, sliding doors with a frame, adjustable louvres, shop fronts and windows with one-piece framing Comment: Details to be provided with the application for the Construction Certificate.
F3D5	Wall Cladding: The following wall cladding materials are deemed to satisfy Performance Requirement F3P1: + Masonry, including masonry veneer, unreinforced and reinforced masonry, complying with AS 3700, + Autoclaved aerated concrete, complying with AS 5146.3, + Metal wall cladding, complying with AS 1562.1. Comment: Details are to be provided together with the F3P1 Performance Solution Report, demonstrating compliance, prior to the issued of the relevant CC(s).
F3P1	Performance Requirement F3P1: A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause + Unhealthy or dangerous conditions, or loss of amenity for occupants; and + Undue dampness or deterioration of building elements. Note 1: There are limited Deemed-to-Satisfy provisions for this Performance Requirement in respect to External Walls. DtS wall types include; masonry; autoclaved aerated concrete; and metal wall cladding only. Note 2: Refer to Clause F3D2 for roof coverings. Comment: A Performance Solution Report will be required to address the above, noting that the proposed design does not comprise of wholly DtS materials.
F4D3	Calculation Of Number Of Occupants And Facilities: This clause sets out the requirements for the calculation of the number of occupants and the number of sanitary facilities required to be installed in Class 2 to 9 buildings. The parameters for the calculation are set out in sub-clauses (a) to (d). Comment: Noted – refer to D2D18, confirmation of population numbers are required.

F4D4

Facilities in Class 3 to 9 Buildings: This clause provides the requirements for sanitary facilities to be installed in Class 3-9 buildings in accordance with **Tables F4D4a – F4D4l**. The requirements and variations are set out in sub-clauses (1)-(11).

Comment: As indicated in D2D18 above the proposed population numbers have been calculated per Table D2D18 and have been subsequently used to assess the required toilet facilities within the building to achieve compliance with Table F4D4. Based on the aggregate population numbers, for each proposed use in the building the following minimum sanitary facilities apply. The proposed sanitary facilities numbers on each floor exceed the minimum numbers required as listed below and as such are compliant with Table F4D4.

Warehouse Areas								
Occupancy Class as per F4D4 (Staff)								
Type		Closet Pans		Urinals		Washbasins		Complies
		Required	Proposed	Required	Proposed	Required	Proposed	Yes/No
Warehouse	Male (300)	15	9	7	10	15	10	Yes**
	Female (200)	14	8	-	-	10	9	Yes*
Office	Males (60)	3	6	3	5	2	6	Yes**
	Female (40)	3	9	-	-	2	8	Yes*
PUD Office	Male (6)	1	4	0	2	1	4	Yes
	Female (4)	1	4	-	-	1	3	Yes
Satellite Office A	Male (6)	1	2	0	2	1	2	Yes
	Female (4)	1	2	-	-	1	2	Yes
Satellite Office B	Male (6)	1	2	0	2	1	2	Yes
	Female (4)	1	2	-	-	1	2	Yes

Note 1: Where sanitary compartments are noted as Unisex on the floor plans, they may be allocated as one facility for each gender per Clause F2D4(1).

Note 2: Where individual stand-alone sanitary compartments are they must be allocated for use by Males or Females only unless they are designed as a unisex accessible compartment per Clause F2D4(1).

Note 3: The amenities have been allocated with the following ratios (male:female) as referenced in the PPR Revision 1.3 dated 09 April 2026:

- Main Office: 60:40
- PUD, Satellite, Dock Offices: 60:40
- Fleet Workshop: 80:20
- Warehouse: 60:40

Note 4*: Compliance has been achieved on the basis that the warehouse and office staff will have free access both the Ground Floor and Level 1 Sanitary facilities.

Note 5:** Compliance has been achieved on that basis that the warehouse staff will have free access to the sanitary facilities in the PUD and Satellite Offices.

F4D5

Accessible Sanitary Facilities: Accessible unisex sanitary compartments must be provided, in accordance with F4D6 and unisex showers must be provided in accordance with Table F4D7, in buildings or parts that are required to be accessible. The details for the provision of disable facilities and the standard, AS 1428.1, are set out in sub-clauses (a) to (i).

Comments: Accessible unisex sanitary compartments are required at each bank of toilets where one or more toilets is provided. In addition to an accessible unisex sanitary compartment at that bank of toilets, an ambulant sanitary facility is required to be provided for use by male and female persons per AS 1428.1-2021. Where multiple banks of toilets are provided on a storey, at least 50% of the banks must comply with the above. Additionally, at least 1 accessible

	unisex sanitary compartment must be provided on every storey containing sanitary compartments. An accessible sanitary facility is not provided to the PUD Office and Satellite Offices where sanitary facilities have been provided. A Performance Solution by the Access Consultant is required to address this non-compliance.
F4D8	Construction of Sanitary Compartments: Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend: + From floor level to the ceiling in the case of a unisex facility; or + A height of not less than 1.5m above the floor if primary school children are the principal users; or + 1.8m above the floor in all other cases. The door to a fully enclosed sanitary compartment must open outwards; or slide: or be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2m, measured in accordance with Figure F4D8 between the closet pan within the sanitary compartment and the doorway. Comment: Details to be provided at CC application stage confirming compliance with the above requirements.
F5D2	Height of Rooms and Other Spaces: The ceiling heights in Class 2 to 9 buildings must not be less than required in sub-clauses (1) to (8) of this clause. The minimum ceiling heights for a Class 5, 6 & 7 building are as follows: + Corridor or Passage, Bathroom, Storeroom, etc. – 2.1m + Remainder – 2.4m. The minimum ceiling heights for a <u>Class 9b building</u> are as follows: + A part (including a corridor serving the part) that accommodates not more than 100 persons – 2.4m; A part (including a corridor serving the part) that accommodates more than 100 persons – 2.7m. Comment: Architect to ensure compliance. Ceiling heights are to be reviewed at the Construction Certificate state with the detailed section drawings.
F6D5	Artificial Lighting: Artificial lighting is required where it is necessary to minimise the hazard to occupants during an emergency evacuation. Sub-clauses (1) - (3) sets out the places where artificial lighting is always required in all classes of buildings and the standard to which it must be installed. Comment: Design certification to be submitted at CC Application.
F6D6	Ventilation of Rooms: A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have natural ventilation complying with F6D7 or a mechanical or air-conditioning system complying with AS1668.2 and AS/NZS 3666.1. Comment: Design certification to be submitted at CC Application.
F6D8	Ventilation Borrowed from Adjoining Room: Natural ventilation must consist of openings, windows, doors or other devices which can be opened— with a ventilating area not less than 5% of the floor area of the room required to be ventilated. Additionally, open to a suitably sized space open to the sky or an adjoining room in accordance with F6D8. Comment: Design certification to be submitted at CC Application.
F6D11	Carparks: Every storey of a carpark (except an open-deck carpark), must have – a system of mechanical ventilation complying with AS1668.2; or a system of natural ventilation complying with Section 4 of AS1668.4. Comment The Van Staging Carpark on Level 1 is to be provided with mechanical ventilation system complying with AS1668.2. Due to the nature of the use of the level and potential

fumes to pass into adjoining areas, the mechanical ventilation system is required to extend through to the adjacent Class 7b areas.

3.6 Section J – Energy Efficiency

Part J4	Building Fabric: The provision of insulation of the building envelope will be required in the proposed Building, in accordance with Clauses J4D3 to J4D7, and the Tables therein, including Thermal Construction General, Roof and Ceiling Construction, Rooflights, Walls, and Floors. Design details and/or certification of design will be required to be provided in this regard. Comment: This section applies to the building envelope of any air-conditioned spaces proposed within the Warehouse buildings. Design details and/or certification of building envelope design will be required to be submitted with the application for a Construction Certificate.
Part J5	Building Sealing: The provision of a compliant building sealing is required to all chimneys & flues, roof lights, windows & doors, Exhaust Fans, Ceilings Walls, & floors in accordance with Clauses J5D3 to J5D7. Comment: This section applies to any air-conditioned spaces proposed within the Warehouses buildings. Design details and/or certification of building envelope design will be required to be submitted with the application for a Construction Certificate.
Part J6	Airconditioning & Ventilation Systems: Details and/or design certification which confirm that any proposed air-conditioning system or unit within the proposed building achieves compliance with the relevant requirements of Part J6 will be required to be provided from the mechanical engineer. Comment: Details or certification demonstrating compliance will need to be submitted with the application for a Construction Certificate.
Part J7	Artificial Light & Power: Details and/or design certification which confirm that all artificial lighting, power control, and boiling/chilled water units within the proposed building achieves compliance with the relevant requirements of Part J7 will be required to be provided from the electrical engineer Comment: Consultant certification required at CC Application Stage.
Part J8	Hot Water Supply, & Swimming Pool & Spa Pool Plant: Details and/or design certification which confirm that any proposed hot water supply system within the proposed building achieves compliance with the relevant requirements of Part J8 (Section 8 of AS 3500.4) will be required to be provided from the hydraulic engineer. Comment: Details and certification demonstrating compliance will need to be submitted with the application for a Construction Certificate.
Part J9	Facilities for Energy Monitoring: Provision for monitoring of energy consumption must be provided to a building where the floor area exceeds 500m², and must be capable of recording the consumption of gas and electricity. In addition, where the floor area of the building exceeds 2,500m² the energy monitoring facilities must be capable of individually recording air-conditioning, lighting, appliance power, central hot water supply, lifts/escalators, and other ancillary plant and being connected to a single interface monitoring system. Comment: Details or certification demonstrating compliance with J9D3 for energy monitoring, J9D4 for provision for EV charging stations, and J9D5 for solar, will need to be submitted with the application for a Construction Certificate.



4.0 Conclusion

This report contains an assessment of the referenced architectural documentation for the proposed warehouse and automated distribution centre at Oakdale East Industrial Estate against the Deemed-to-Satisfy provisions of the Building Code of Australia 2022 Amendment 2.

Arising from the assessment, key compliance issues have been identified that require further resolution, either by way of fire engineered Performance Solutions or plan amendments prior to the Construction Certificate stage.

Notwithstanding the above, it is considered that the proposed development can readily achieve compliance with the BCA subject to resolution of the matters identified in this report.



Appendices

+ Appendix 1 – References Tables

Table 1: Non-Combustibility Requirements

+ Building Element	+ Type A Construction
External wall	Non-combustible
Common wall	Non-combustible
Floor and floor framing of lift pit	Non-combustible
All loadbearing internal walls (including those of shafts)	Concrete, masonry or fire-protected timber
Loadbearing fire walls	Concrete, masonry or fire-protected timber
Non-loadbearing internal walls required to be fire-resistant	Non-combustible
Non-loadbearing lift, ventilating, pipe, garbage and the like shafts which do not discharge hot products of combustion.	Non-combustible (subject to conditions outlined in C2D10)

Table 2: Fire Hazard Properties Requirements – Floor Linings

+ Table S7C3 of Specification 7 Critical Radiant Flux of Floor Linings and Floor Coverings			
+ Class of Building	Building Not Fitted with a Sprinkler System	Building Fitted with a Sprinkler System (other than a FPAA101D or FPAA10H System)	Fire-isolated Exits and Fire Control Rooms
Class 5 & 7:	2.2 kW/m ²	1.2 kW/m ²	2.2 kW/m ²

Table 3: Fire Hazard Properties Requirements – Wall and Ceiling Linings

+ Table S7C4 of Specification 7 – Wall and Ceiling Lining Materials (Materials Groups Permitted)				
Class of Building	Fire-isolated Exits and Fire Control Rooms	Public Corridors	Special Areas	Other Areas
Class 5 & 7 Sprinklered	Walls: 1 Ceilings: 1	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3

Table 5: Fire-Resisting Construction – Type A Construction

+ Building Element	+ Class of Building - FRL: (in minutes) Structural adequacy/integrity/insulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL – (Including any column and other building element incorporated within it) or other external building element, where the distance from any fire source feature to which it is exposed is:				
For loadbearing parts:				
Less than 1.5m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3m	90/60/60	120/90/90	180/180/120	240/240/180
3m or more	90/60/30	120/60/30	180/120/90	240/180/90
For non-loadbearing parts:				
less than 1.5m	-/90/90	-/120/120	-/180/180	-/240/240
1.5 to less than 3m	-/60/60	-/90/90	-/180/120	-/240/180
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
EXTERNAL COLUMN - Not incorporated in an external wall				
For loadbearing columns	90/-/-	120/-/-	180/-/-	240/-/-
For non-loadbearing columns	-/-/-	-/-/-	-/-/-	-/-/-
COMMON WALLS and FIRE WALLS	90/90/90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS				
Fire-resisting lift and stair shafts				
Loadbearing	90/90/90	120/120/120	180/120/120	240/120/120s
Non-loadbearing	-/90/90	-/120/120	-/120/120	-/120/120
Bounding public corridors, public lobbies and the like:				
Loadbearing	90/90/90	120/-/-	180/-/-	240/-/-
Non-loadbearing	-/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units:				
Loadbearing	90/90/90	120/-/-	180/-/-	240/-/-
Non-loadbearing	-/60/60	-/-/-	-/-/-	-/-/-
Ventilating, pipe, garbage, and the like shafts not used for the discharge of hot products of combustion:				
Loadbearing	90/90/90	120/90/90	180/120/120	240/120/120
Non-loadbearing	-/90/90	-/90/90	-/120/120	-/120/120
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

Notes:

1. Any lightweight construction in a fire wall or an internal wall required to have an FRL is to comply with Specification 11.
2. A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from; concrete or masonry.
3. 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 must typically achieve the same FRL. Where that part is also required to be non-combustible, the supporting part must also be non-combustible.
4. The method of attaching or installing a finish, lining, ancillary element, or service installation to a building must not reduce the fire-resistance of that element to below that required.
5. Fire rated shafts are required to be enclosed at the top and bottom by construction having an FRL of not less than what the shaft requires (in both directions)
6. The concession granted under S5C15 results in the roof of the building not being required to be fire rated (the building is provided throughout with sprinklers). Notwithstanding, the Atrium provisions override this general concession in BCA Specification 5.
7. Lift shafts are required to be enclosed at the top of the shaft with fire rated construction having an FRL of 120/120/120.
8. Fire isolated exits are to be provided with a fire rated "lid" that achieves an FRL of 120/120/120.
9. Where roof lights are proposed they are required to be located not less than 3 metres from a roof light in an adjoining fire separated part; and must not be more than 20% of the area of the roof.
10. Any loadbearing internal walls or loadbearing fire walls are to be masonry or concrete.
11. External walls must be non-combustible construction. Non-loadbearing parts of an external wall that are more than 3m from a fire source feature need not be fire rated.
12. Internal columns in this building (being less than 25m in effective height) that are in the storey immediately below the roof, can be constructed as follows:
 - a. Building with a rise in storeys exceeding 3 – FRL 60/60/60
 - b. Building with a rise in storeys not exceeding 3 – no FRL

Table 4: Fire-Resisting Construction – Type C Construction

+ Building Element	+ Class of Building - FRL: (in minutes) Structural adequacy/integrity/insulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL – (Including any column and other building element incorporated within it) or other external building element, where the distance from any fire source feature to which it is exposed is:				
For loadbearing parts:				
Less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3m	-/-/-	60/60/60	60/60/60	60/60/60
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
EXTERNAL COLUMN - Not incorporated in an external wall				
Less than 1.5m	90/-/-	90/-/-	90/-/-	90/-/-
1.5 to less than 3m	-/-/-	60/-/-	60/-/-	60/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
COMMON WALLS and FIRE WALLS	90/90/90	90/90/90	90/90/90	90/90/90
INTERNAL WALLS				
Bounding public corridors, public lobbies and the like:	60/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units:	60/60/60	-/-/-	-/-/-	-/-/-
Bounding a stair if required to be rated:	60/60/60	60/60/60	60/60/60	60/60/60
ROOFS	-/-/-	-/-/-	-/-/-	-/-/-

Notes:

1. New external walls that are located 1.5m or more from an allotment boundary / fire source feature require no FRL's.
2. 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 must typically achieve the same FRL. Where that part is also required to be non-combustible, the supporting part must also be non-combustible.
3. An external wall required to have an FRL is only required from the outside.
4. Any lightweight construction in a fire wall or an internal wall required to have an FRL is to comply with Specification 6.
5. The method of attaching or installing a finish, lining, ancillary element, or service installation to a building must not reduce the fire-resistance of that element to below that required.
6. No structural elements are permitted to pass through fire-rated walls.

+ Appendix 2 – Fire Safety Schedule

The following table is a list of the required fire safety measures within the building. These measures may be subject to further change pending the outcomes of the final Fire Safety Engineering Review to confirm the works are permissible and do not contradict the base building Performance Solutions.

Table 6: Fire Safety Schedule

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Proposed
Alarm Signalling Equipment	AS 1670.3 – 2018	✓
Automatic Fail Safe Devices	BCA 2022 Clause D3D26	✓
Automatic Fire Detection & Alarm System	BCA 2022 Spec. 20 AS 1670.1 – 2018	✓
Automatic Fire Suppression Systems	BCA 2022 Spec. 17 AS 2118.1 – 2017	✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018	✓
Emergency Evacuation Plan	AS 3745 - 2010	✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018	✓
Fire Control Centre	BCA 2022 Spec. 19	✓
Fire Doors	BCA 2022 Clauses C3D13, C3D14, C4D6 AS 1905.1 – 2015 Manufacturer's Specification	✓
Fire Hose Reels	BCA 2022 Clause E1D3 AS 2441 – 2005	✓
Fire Hydrant Systems	BCA 2022 Clause E1D2 AS 2419.1 – 2021 Appendix C	✓
Fire Seals	BCA 2022 Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2014 Manufacturer's Specification	✓
Lightweight Construction	BCA 2022 Clause C2D9 AS 1530.4 – 2014 Manufacturer's Specification	✓
Mechanical Air Handling Systems (Automatic Shutdown)	BCA 2022 Clause E2D3 AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012	✓
Perimeter Vehicular Access	BCA 2022 Clause C3D5	✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001	✓
Required Exit Doors (TBC) (Power Operated)	BCA 2022 Clause D3D24(2)	✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Proposed
Smoke Hazard Management Systems + Smoke Exhaust	BCA 2022 Part E2 Spec 21 AS/NZS 1668.1 –2015	✓
Warning & Operational Signs	BCA 2022 Clause D3D28, D4D7 & E4D4. AS 1905.1 – 2015 EP&A (DCFS) Regulations 2021 Section 108	✓