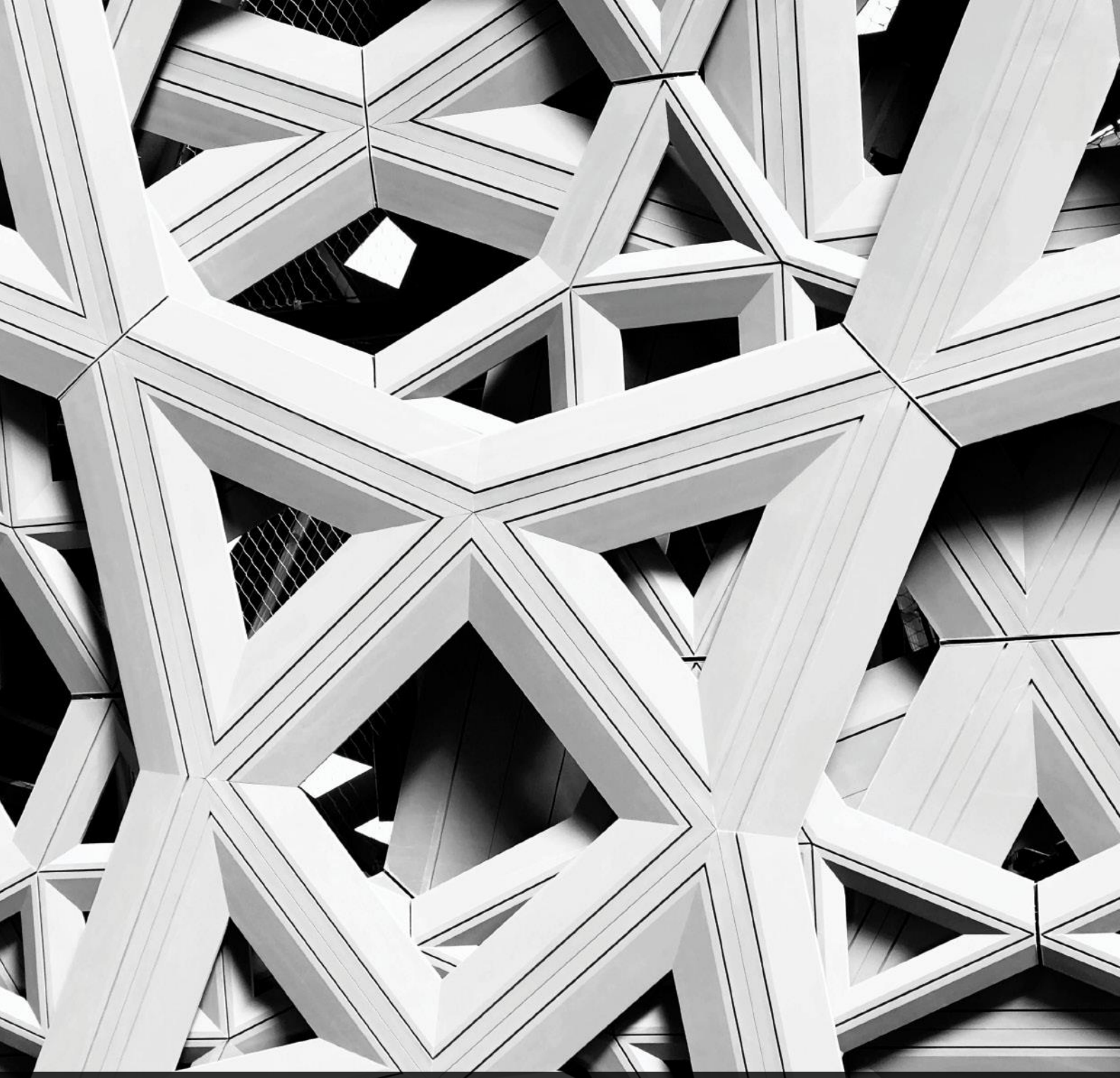


BCA & DDA Capability Statement

Muswellbrook Industrial Depot
252 Coal Road, Muswellbrook

Prepared for:
Muswellbrook Shire Council

c/o- CCG Architects

Revision 0
12 February 2025
Reference: N240013

bmplusg.com.au

+ Contents

BCA & DDA Capability Statement

+ To	CCG Architects
+ Attention	Hisham Noori
+ Email	hnoori@ccgarchitects.com.au
+ From	Beth Simmons + Jake Hofner
+ Subject	Muswellbrook Industrial Depot
+ Project No.	N240013
+ Date	12 February 2025
+ Pages	25

This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the Development Application (DA) to Muswellbrook Shire Council for the proposed refurbishment of an industrial depot against the Building Code of Australia 2022 (BCA).

1.0 Proposed Development

The proposed development comprises the development of a new two storey Industrial Depot for use by the Muswellbrook Shire Council.

Figure 1: Proposed Industrial Depot

1.1 Capability Statement Objectives

The objectives of this statement are to:

- Confirm that the DA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- Confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to section 19 of the *Environmental Planning & Assessment (Development Certification & Fire Safety) Regulation 2021*.
- Accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 4.55 of the *Environmental Planning and Assessment Act 1979*.

It should be noted that it is not the intent of this statement to identify all BCA provisions that apply to the subject development. The development will be subject further assessment following receipt of more detailed documentation at Construction Certificate stage.

This statement has been prepared pursuant to clause 18 of the *Building Professionals Regulation 2007*.

1.2 Relevant Version of the BCA

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, with the next revision of the BCA coming into effect 1 May 2025. As it is

understood the Construction Certificate application will be lodged after 1 May 2023 and before 1 May 2025, this report assesses the design against compliance with the requirements of BCA 2022.

Where the building is a multi-storey building and multiple Construction Certificates will be issued under the same development consent, the relevant version of the BCA may be 'locked in' based on the day in which the application is made for the Construction Certificate which involves the *entrance floor*.

1.3 Referenced Documentation

This report has been prepared based on a review of the DA architectural plans prepared by CCG Architects:

Drawing No.	Revision	Date
DA 000	5	10.02.2025
DA 002	7	10.02.2025
DA 004	6	10.02.2025
DA 102	7	10.02.2025
DA 201	4	10.02.2025
DA 301	4	10.02.2025
DA 303	7	10.02.2025
AR 500	2	10.02.2025

Drawing No.	Revision	Date
DA 001	6	10.02.2025
DA 003	5	10.02.2025
DA 101	7	10.02.2025
DA 103	5	10.02.2025
DA 202	7	10.02.2025
DA 302	4	10.02.2025
DA 304	7	10.02.2025
AR 600	2	10.02.2025

1.4 Building Classification

The new building works have been classified as follows:

BCA Classification(s)	Class 5 (Admin), Class 7a (Carpark), Class 7b (Storage) Class 8 (Workshop)
Rise in Storeys	Two (2) (1)
Storeys Contained	Two (2) (1)
Type of Construction	Type C Construction
Importance Level (Structural)	IL2 – subject to confirmation by client/structural engineer
Sprinkler Protected Throughout	No
Effective Height	3m (RL LL 225.15 – UL 222.15)
Total Floor Area	< 2000m^2
Largest Fire Compartment	Approx. 410m^2 and 2,092m^3 – Storeroom Compartment
Climate Zone	Zone 6

Note:

(1) Based on the Class 8 part not exceeding an internal height of 6m in accordance with C2D3.

2.0 BCA Assessment – Key Issues

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.

2.1 Section B – Structure

Part B1

- New building works are to comply with the structural provisions of the BCA 2022 and referenced standards including AS 1170.
- The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary.

Comment: All new works will need to comply with current BCA/AS requirements.

Compliance readily achieved, structural engineer to review and ensure compliance as part of the design development. Details to be provided along with the application for Construction Certificate.

2.2 Section C – Fire Resistance

C2D2 / Spec 5

Type of Construction Required: All of the proposed and existing required to comply with the requirements of Type C Construction as stated within Specification 5. The table below provides an overview of the requirements of each. Refer to Table of Appendix 1 for the FRL requirements of Type Construction.

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 S5C3.
+ Roofs need not achieve an FRL.
+ Internal columns need not achieve an FRL.

Comment: Compliance readily achieved; all new works will need to comply with the requirements of Specification 5 of the BCA.

Based on the project site plan, the building is not exposed to any fire source features on the same allotment or external to the lot that would constitute the requirement for fire rated construction to the external walls of the proposed depot building.

C2D3

Calculation of Rise in Storeys: The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space –

- Above the finished ground next to that part, or
- If part of the external wall is on the boundary of the allotment above the natural ground level at the relevant part of the boundary.

In a Class 7 or 8 building, a storey that has an average internal height of more than 6m is counted as –

- One storey if it is the only storey above ground, or
- 2 storeys in any other case.

Comment: The building has been calculated with a Rise of Storeys of two (2) based on the finalised section drawings demonstrating an internal height of less than 6m within the Class 7 and 8 parts of the building.

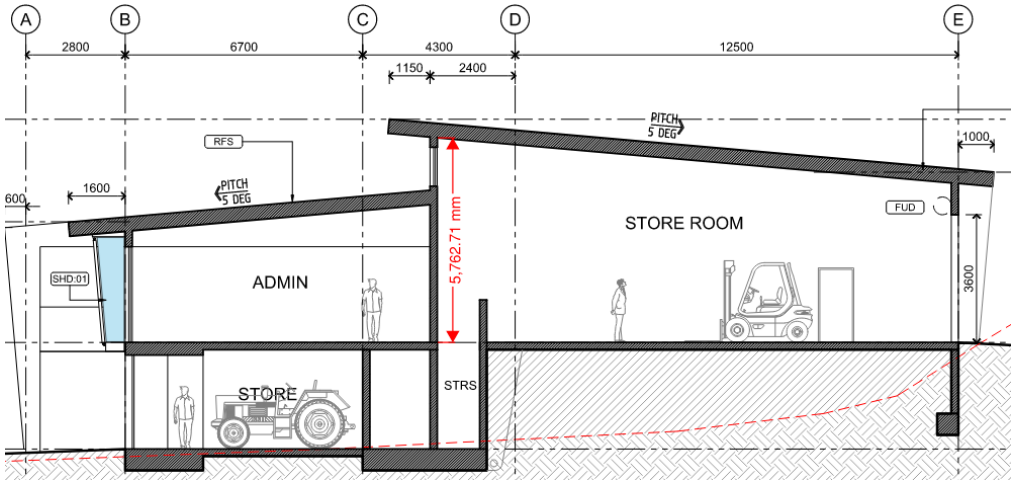


Figure 2: Internal Height of Class 7 Part

C2D10 / C2D14

Non-Combustible Building Elements: All materials and or components incorporated in an external 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.

Ancillary Elements: An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible, unless it is in accordance with this clause.

Comment: Not Applicable. Based on the depot having Type C construction building characteristics the requirements above do not apply.

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

Comment: A schedule of fire hazard properties and associated material fire test reports are to be provided along with the application for Construction Certificate.

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 FPAA101H system)	+ Fire-isolated exits and fire control rooms
Class 2, 3, 5, 6, 7, 8 or 9b, excluding— Class 3 accommodation for the aged; and Class 9b as specified below	2.2 kW/m^2	1.2 kW/m^2	2.2 kW/m^2

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	+ Specific areas	+ Other areas
Class 5, 6, 7, 8 or 9b schools, Unsprinklered	Walls: 1 Ceilings: 1	Walls: 1, 2 Ceilings: 1, 2	Walls: 1, 2, 3 Ceilings: 1, 2	Walls: 1, 2, 3 Ceilings: 1, 2, 3

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.

The following maximum fire compartment sizes apply to the building:

Class 7 & 8

+ 2,000m^2
+ 12,000m^3

Class 5

+ 3,000m^2
+ 18,000m^3

Comment: Compliance is readily achieved. The floor area and volume of each fire compartment within the building is within the limitations of this clause as listed above.

C3D8

Separation by Fire Walls:

Separation of buildings- A part of a building may be considered separate from the remainder of the building if separated by a fire wall in accordance with the following:

+ The fire wall extends through all storeys and is carried through to the underside of the roof covering.
  - Where roofs of separate buildings are at different heights, the fire wall must extend to the underside of:
  - The higher roof, or >6m above the lower roof.
  - The lower roof if it has an FRL not less than that of the fire wall and no openings closer than 3m to any wall above the lower roof.
  - The lower roof if its covering is non-combustible and the lower part is sprinkler protected.

Separation of fire compartments- A part of a building, separated from the remainder by a fire wall, may be treated as a separate fire compartment if the fire wall extends to the underside of:

+ A floor having an FRL required for a fire wall; or
+ The roof covering.

Comment: Compliance is readily achievable. Fire walls separating the proposed building compartments are to be constructed to achieve compliance with the requirements of C3D9, C3D10 and Specification 5 as nominated below.

	Where service lines penetrate a fire rated wall, they are to be protected using a tested system in accordance with BCA Clause C4D15 and Specification 13. Details of fire rated penetrations and applied tested systems are to be provided along with application for Occupation Certificate.
C3D9 & C3D10	**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. **Comment:** All separating fire walls constructed within the building are to have FRL 90/90/90 as per Table S5C24c.
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 5, 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 the emergency mode; or + boilers; or + A battery or batteries installed in the building that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours. **Comment:** Compliance is readily achievable. Based on the DA documentation, there is no instance where the above-listed equipment is proposed. Where any equipment is installed, it is to be adequately separated in accordance with this clause.
C4D4 & C4D5	Separation of External Walls and Associated Openings in Different Fire Compartments: The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must be at least that set out in Table C4D4 unless- + Those parts of each wall have an FRL of at least 60/60/60; and + Any openings protected in accordance with C4D5. **Comment:** Based on the location of the proposed fire separating walls, exposure is created between adjacent fire compartments as shown in the figure below.

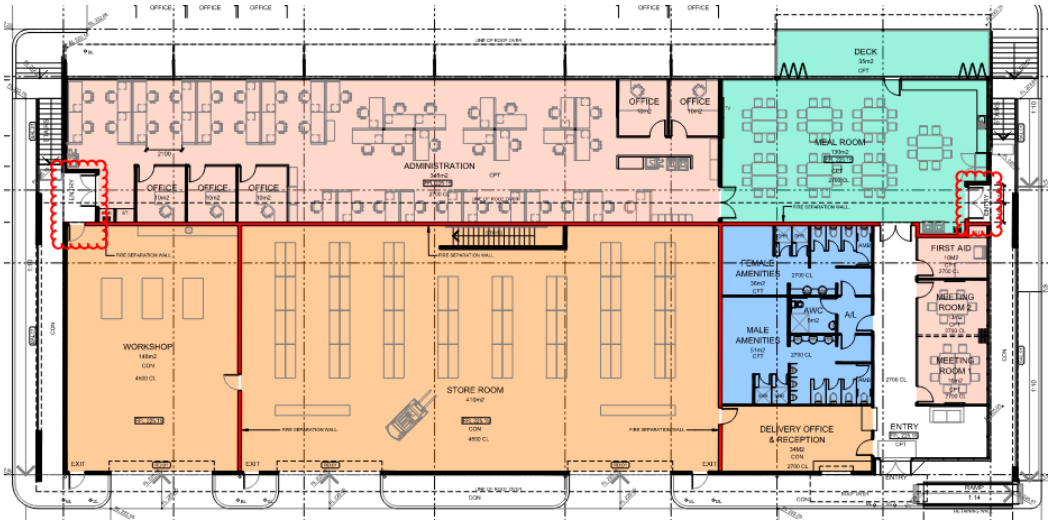


Figure 3: Exposure between Separate Fire Compartments

To adequately protect the adjacent fire compartments where exposure occurs, the external walls are to be constructed to achieve an FRL of 60/60/60 where located within of the exposed fire compartment 3m at 90° and 6m where directly opposite.

The doors contained in the required 60/60/60 walls must be protected in accordance with BCA Clause C4D5 by way of wall-wetting sprinklers to an automatic or self-closing door or, -/60/30 automatic or self-closing fire doors.

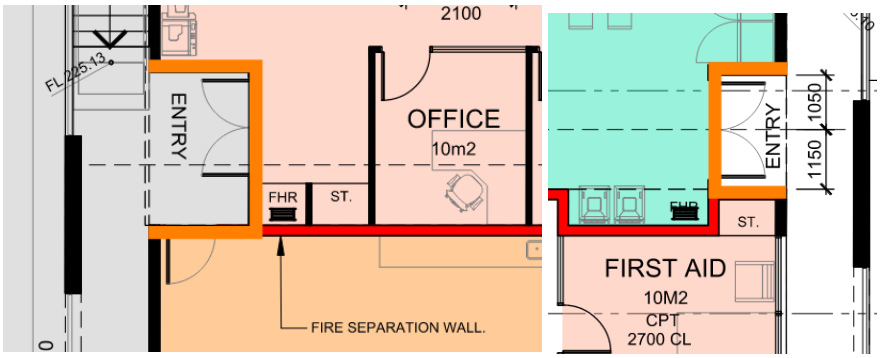


Figure 4: Walls Requiring FRL 60/60/60

Alternatively, the exposure between adjacent fire compartments can be addressed by way of a Fire Engineered Strategy whereby the fire rating of one exposed wall achieves 120/120/120 in lieu of the two 60/60/60 walls in alternate compartments.

Spec. 5	**Fire-Resisting Construction:** The building is required to comply with S5C24 and associated tables as relevant to FRLs required for buildings of Type C Construction. **Comment:** See Appendix 1 for table of required FRLs.
Spec. 12	Fire Doors, Smoke Doors, Fire Windows and Shutters: Fire doors and smoke doors must comply with the requirements of this specification.

2.3 Section D – Access and Egress

D2D3	**Number of exits required:** The building is required to be provided with not less than one (1) exit from each storey. **Comment:** Compliance is readily achieved.
D2D5 & D2D6	**Exit Travel Distances and Distance Between Alternative Exits:** Exit travel distances within the building are required to be not more than 20m to a point of choice between alternative exits and 40m to the nearest one from Class 5, 7 & 8 areas. The maximum distance permitted between alternative exits in Class 5, 7 & 8 areas is 60m. This must be measured back through the point of choice. Alternative egress paths are not permitted to converge to less than 6m, and alternative exits must be located more than 9m apart. **Comment:** Compliance is readily achieved. Based on the location of available exits to open space from each fire compartment, complaint travel distances can be achieved throughout the building.
D2D7/ D2D8/ D2D9/ D2D10/ 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) or 1.8m in a passageway, corridor or ramp normally used for the transportation of patients in beds within a treatment area. **Comment:** Compliance is generally achieved throughout with regard to the width and height of the paths of travel to the available exits. Prior to application for Construction Certificate, the areas of reduced width in the amenities block and to the lower level egress path, as identified in the figures below, are to be amended or else clearly dimensioned on architectural documentation to ensure a clear width of 1m is maintained throughout.

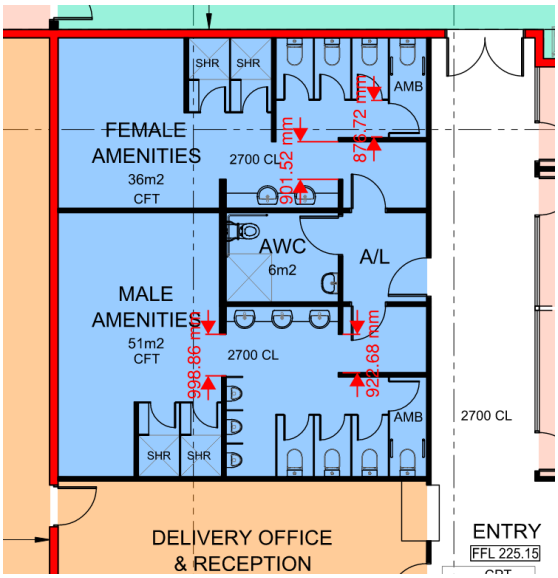


Figure 5: Reduced Widths in Amenities

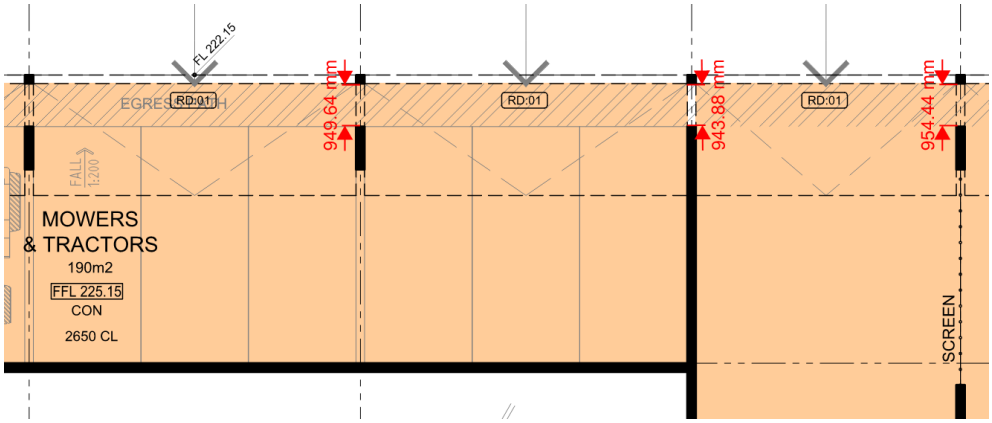


Figure 6: Lower Level Egress Path

D2D15

Discharge from Exits: The path of travel to the road from a required exit leading to open space must have an unobstructed exit width of that of the required exit, or if larger, 1m.

The path of travel from the exit to the adjoining road must be via a ramp having a grade of not more than 1:8 and or a compliant stairway complying with the requirements of the BCA.

Comment: Compliance is readily achieved. The external ramps are understood to provide emergency egress only from the lower storey of the depot and as such achieve compliance being of gradient 1:10. The ramps are to be provided with a handrail to at least one side in accordance with the requirements of BCA Clause D3D22.

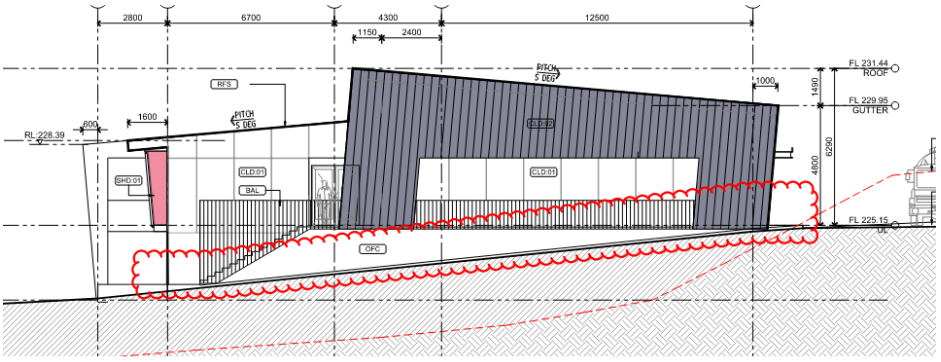


Figure 7: Western External Ramp

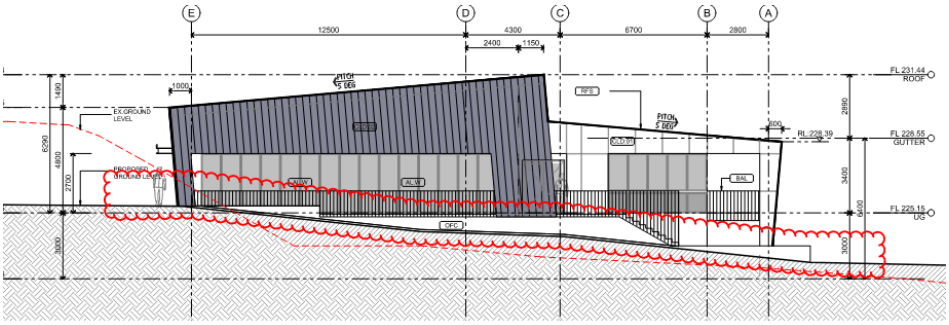


Figure 8: Eastern External Ramp

The accessible ramp provided access between the adjacent road and the principle entrance at the upper level appears to achieve compliance.

Updated architectural documentation will need to be provided along with the application for Construction Certificate showing construction details as applicable to the ramps.

D3D8

Installations in exits and paths of travel Electrical meters, distribution boards or equipment, central telecommunications distribution boards or equipment must be enclosed in non-combustible construction and sealed against the passage of smoke

Comment: Compliance readily achieved, the documentation is to nominate non-combustible enclosures with smoke sealing to the associated openings where electrical meters, distribution boards and the like where proposed to be installed.

In addition, the location of any central telecommunication rooms will need to be nominated and as required have construction complying with this clause

Architect to ensure the design complies with the below.

- Enclosing with non-combustible construction
- Doors being provided with metal lining
- Smoke seals to doorways

Penetrations provided with sealant or product provided with non-combustible sealant.

D3D14/ D3D15/ D3D16/ D3D22

Stairways, Balustrades, and Handrails: Stairways, balustrades and handrails are to be upgraded to achieve compliance with the current provisions of the BCA and AS 1428.1-2009.

Floor finishes will be required to achieve the correct slip resistance in accordance with AS 4586, and associated handbooks HB197 and HB198. This will need to be confirmed compliant at Occupation stage and as such, the selection of materials will need to be considered in relation to these requirements.

Comment: Compliance readily achieved, architect to note and provide balustrade and handrail details as applicable to the ramps, stairways and veranda along with application for Construction Certificate.

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: Compliance is generally achieved throughout with regard to the direction of door swing at required exits.

The design is to be amended to ensure the outward swing of the required exit doors does not encroach on the minimum width of a path of travel by more than 500mm.

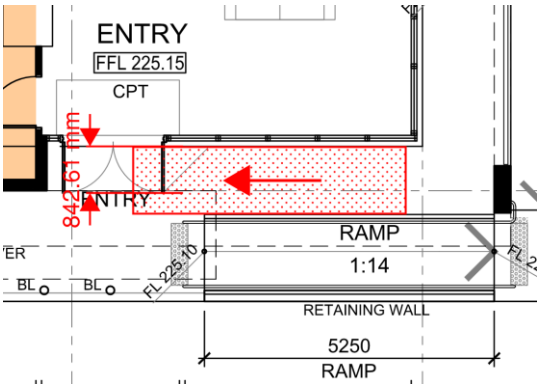


Figure 9: Door Swing Impeding on the Minimum Exit Width

Part D4	**Access for People with a Disability:** The extent of access required depends on the classification of the building. Buildings and parts of buildings must be accessible as set out in Clause D4D2 unless exempted by Clause D4D5. The building is required to comply with AS1428.1-2009. **Comment**: See Section 2.8 of this report for further details.

2.4 Section E – Services and Equipment

E1D2	**Fire Hydrants:** Fire hydrant coverage is required to be provided to the building in accordance with AS2419.1 – 2021. **Comment:** Compliance readily achieved, hydraulic consultant is to provide design drawings and certification demonstrating compliance with the requirements of this BCA Clause and AS2419.1-2021 along with application for Construction Certificate. Based on the architectural documentation, the location of the booster assembly achieves compliance with the requirements of the standard. The construction issue hydraulic plans are to appropriately nominate the appliance hardstand, required outlets, distance from any high risk element on site etc.
E1D3	**Fire Hose Reels:** Fire hose reel coverage is required to be provided to the whole building where one or more internal fire hydrants are installed, or to serve any fire compartments with a floor area greater than 500m^2. Where required to be provided, fire hose reels are to comply with AS 2441 – 2005. Design consultant to confirm compliance at the Construction Certificate stage. **Comment:** Compliance readily achieved, hydraulic consultant is to provide design drawings and certification demonstrating compliance with the requirements of this BCA Clause and AS 2441 – 2005 along with application for Construction Certificate. The fire hose reel system is to be extended to serve the two storey, Class 7 fire compartment where the upper level store room is connected to the lower level store room and car park having a combined floor area of 867m^2.

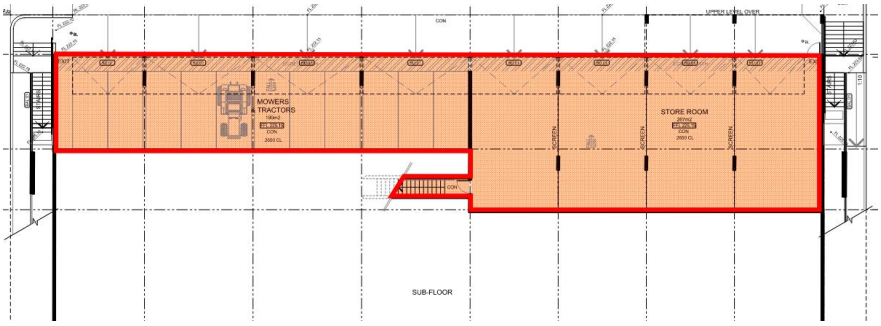


Figure 10: Lower Level Compartment Area

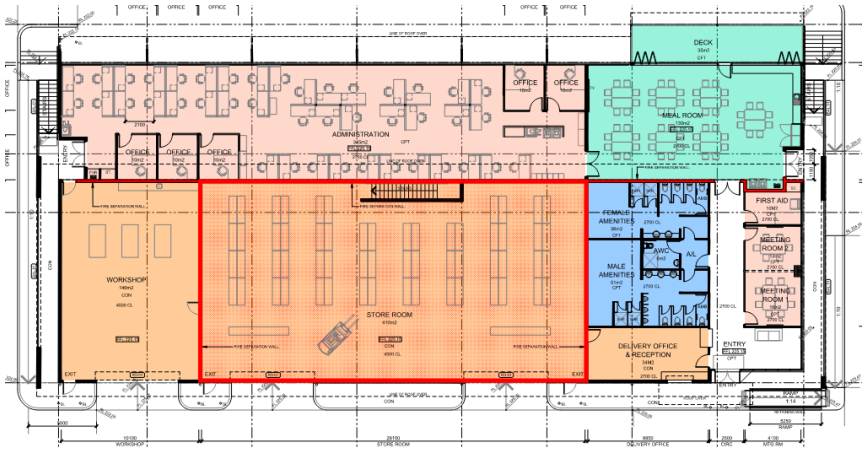


Figure 11: Upper Level Compartment Area

Where the fire hose reels are to be enclosed in a designated cupboard, no debris or equipment is to be stored within the space and the design is to ensure the opened cupboard door does not impede on the require egress width by more than 500mm as per BCA Clause D3D25.

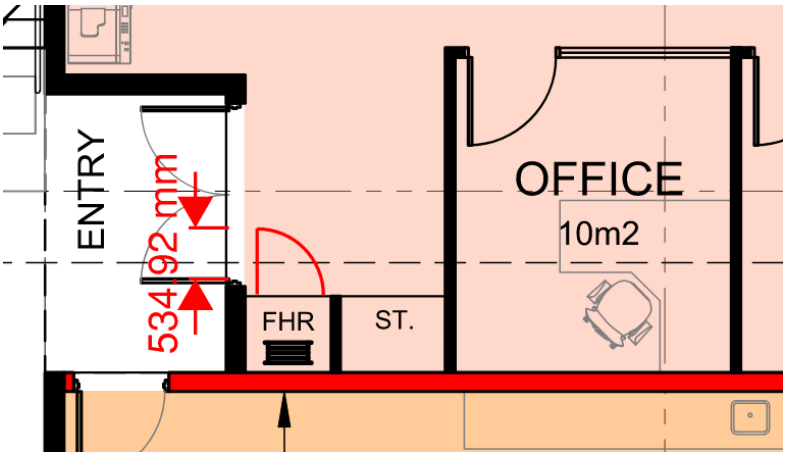


Figure 12: Indicative Swing of Cupboard Door

E1D14	**Fire Extinguishers:** To be provided and designed in accordance with AS 2444-2001. **Comment:** Compliance readily achieved to be incorporated into the design. Design certification will need to be provided along with the application for Crown Certificate.
E2D3 – E2D20	**Smoke Hazard Management:** 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 fire compartments. **Comment:** Compliance readily achieved, relevant consultant to review and provide details demonstrating compliance with application of the Construction Certificate. The following smoke hazard management systems are to be installed in the building and will be required: + Automatic shutdown of mechanical air handling systems throughout, + Automatic fire and smoke dampers to air handling ductwork where penetrating fire rated walls, and + A mechanical ventilation system compliant with clause 5.5 of AS 1668.1 within the lower level carpark.
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. **Comment:** Compliance is readily achievable. Design certification to be provided along with the application for Crown Certificate.

2.5 Section F – Health and Amenity

Part F1	**Damp and Weatherproofing:** Damp and weatherproofing to comply with the prescriptive requirements of this Part. **Comment:** Compliance readily achieved, details to be incorporated into the design. Architect to confirm any proposed subfloor spaces, where proposed these subfloor spaces will need to be designed to comply with the requirements of F1D8 of the BCA.
Part F2	**Wet Areas and Overflow Protection:** Where urinals are installed, an impervious wall lining must be provided up to the top of the urinal. Where any floor waste is installed (including floor wastes not required by the BCA), they must be provided with falls in accordance with F2D3. **Comment:** Compliance readily achieved, architect to note and ensure compliance in the design.
Part F3	**Roof and Wall Cladding:** This section contains DtS provisions for the weatherproofing of certain external wall and roof designs. + Roof coverings must comply with F3D2. + Sarking must comply with F3D3. + Glazed assemblies must comply with F3D4. + Wall cladding must comply with F3D5. **Comment:** Compliance readily achieved design certification to be provided with the application for Construction Certificate. Where a system is proposed other than one permitted under the DTS provisions of the BCA (F3D5) a Performance Solution will need to be prepared by a façade engineer.
Part F4	**Sanitary Facilities:** Sanitary facilities must be provided to comply with the relevant requirements of this part, as applicable to the building's classification and use. **Comment:** Compliance is readily achieved based on the sanitary facilities provided and the proposed building occupant numbers.
F5D2	**Ceiling Heights:** The floor to ceiling heights must be as follows: *The minimum ceiling heights in a Class 5 / 6 / 7 / 8 building are as follows:* + Generally – 2.4m. + Corridor, passageways, or the like – 2.1m. *In any building:* + Bathrooms, sanitary compartments, tea preparations rooms, pantries, store rooms or the like – 2.1m, + A commercial kitchen – 2.4m, Above a stairway, ramp, landing or the like – 2m. **Comment:** Compliance readily achieved based on the architectural documentation provided.
Part F6	**Light and Ventilation:** Artificial lighting systems are required to comply with Clause F6D5 and AS 1680. 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 ventilation or air-conditioning system complying with AS 1668.2 and AS/NZS 3666.1 **Comment:** Compliance readily achieved details to be incorporated into the design and details demonstrating compliance to be provided along with the application for Construction Certificate.

2.6 Section G – Ancillary Provisions

Part G5	**Construction in Bushfire Prone Areas:** In a designated bushfire prone area the following must comply with Specification 43:
	+ A Class 9a health-care building.
	+ A Class 9b—
	  - early childhood centre; or
	  - primary or secondary school.
	+ A Class 9c residential care building.
	Comment: The requirements of this part do not apply based on the building classification. Notwithstanding, further consultation with the project's bushfire consultant will be required as part of the DA submission to confirm any applicable bushfire compliance requirements.

2.7 Section J – Energy Efficiency

Section J	**Energy Efficiency:** The new building works subject to compliance with the Energy Efficiency Provisions of BCA 2022 Section J relating to: + J2: Energy Efficiency + J4: Building Fabric + J5: Building Sealing + J6: Air-Conditioning and Ventilation + J7: Artificial Lighting and Power + J8: Heated Water Supply and Swimming Pool and Spa Pool Plant + J9: Energy Monitoring and On-Site Distributed Energy Resources The Construction Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines). **Comment:** The design and construction of the building envelope is to be in accordance with the Section J DTS Report as developed by Sustain Erbas. The Construction Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines).

2.8 Disability (Access to Premises Building) Standards 2010

DDA

The Disability (Access to Premises-Buildings) Standards 2010 (the Access to Premises Standards) requires the building to comply with the Access Code (BCA Part D4 & AS 1428.1-2009).

With respect to the proposed new building, compliance with the Access Code is achieved if the building complies with:

- BCA clauses D4D1 to D4D13;
- BCA clauses E3D7 & E3D8;
- BCA clauses F4D3, F4D5 to F4D7 and F4D12.

Detailed documentation demonstrating compliance with the above BCA provisions and AS 1428.1-2009 will be required for assessment at Construction Certificate stage. In the event that DtS compliance is not achieved, a redesign will be required or a Performance Solution will need to be documented by an appropriately qualified Access Consultant.

D4D2

General Building Access Requirements:

- For Class 5, 6, 7b, 8 and 9a buildings, access must be provided to and within all areas normally used by the occupants.
- For a Class 7a building, access must be provided to and within any level containing accessible carparking spaces.

Comment: Compliance is generally achieved. See comments against Clause D4D5 for consideration of exempt areas.

D4D3

Access to Buildings: Accessways must be provided to accessible buildings from the main points of pedestrian entry at the allotment boundary and any accessible car parking space or accessible associated buildings connected by a pedestrian link.

An accessway must be provided to a building required to be accessible-

- From the main points of a pedestrian entry at the allotment boundary; and
- From another accessible building connected by a pedestrian link; and
- From any required accessible car parking space on the allotment.

In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance and through not less than 50% of all pedestrian entrances including the principal pedestrian entry.

Comment: An accessible path of travel appears to be provided connecting the principle pedestrian entry to the allotment boundary and the designated accessible car parking bays. Adequate wayfinding signage and accessible installations are to be provided along the nominated accessway.

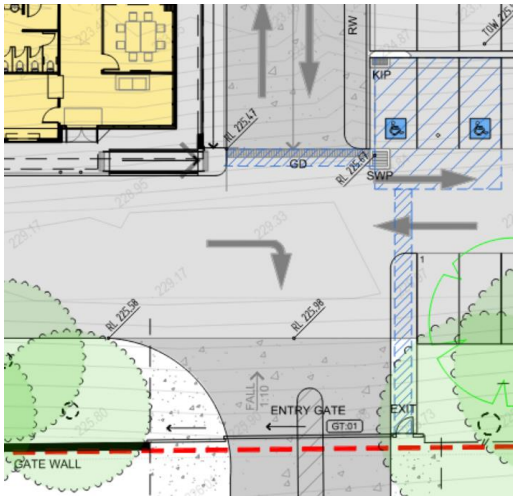


Figure 13: Proposed Accessway

Additional details are to be submitted along with application for Construction Certificate confirming compliant grades are achieved, kerb ramps and TGSIs are provided and safety movement through carparking areas can be achieved.

D4D4

Parts of Buildings to be Accessible:

- Every ramp and stairway (except for fire-isolated stairways) are required to comply with AS 1428.1 – 2009.
- Accessways must have turning and passing space complying with AS 1428.1 – 2009.

Comment: Compliance is generally achieved with the requirements of AS 1428.1 – 2009 within the areas of the building required to be accessible. The non-compliances identified below are to be amended in the design or else addressed by way of a performance-based design strategy.

AS1428.1-2009 Clause 6.4

Where direct line of sight cannot be maintained for the complete length of the external balcony, adequate turning space of 1800mm x 2000mm. It is to be confirmed if this external accessway is proposed to be an accessible path of travel.

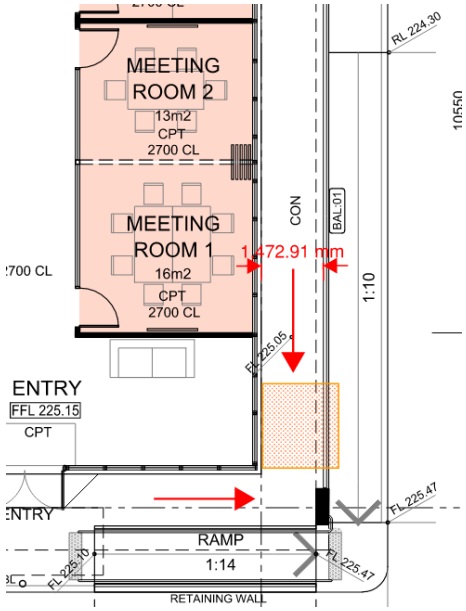


Figure 14: Inadequate Passing Space where Line of Sight in Broken

AS1428.1-2009 Clause 6.5

The design is to ensure adequate turning space is provided on accessible paths of travel. Where an accessway requires a 90 turn, an unobstructed space of 1500mm x 1500mm, with permitted internal splay, is to be provided to enable unimpeded operation of a mobility aid. The external balcony area identified in the figure below is to be addressed where this is considered an accessible path of travel.

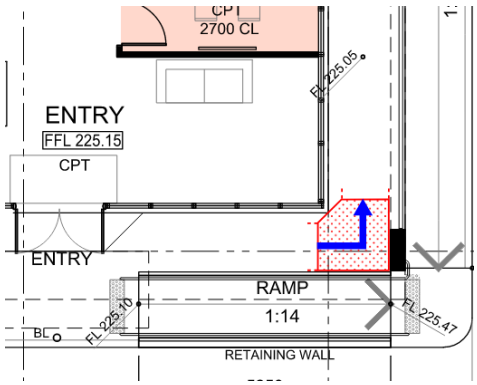


Figure 15: Inadequate 90° Turning Space

Consideration for turning and circulation space should also be made with respect to any fixed furnishings or those that cannot be readily moved by a building occupant i.e. stacks, filing cabinets, desks etc. See below typical examples of circulation spaces being impeded by proposed furnishings, it is to be confirmed if these items are proposed to be readily moveable.

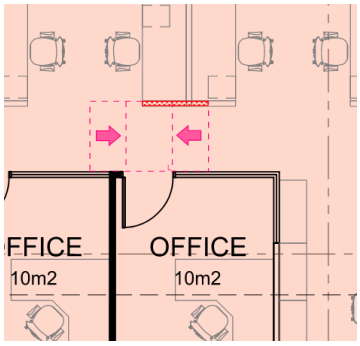


Figure 16: Furnishing in Door Circulation Space

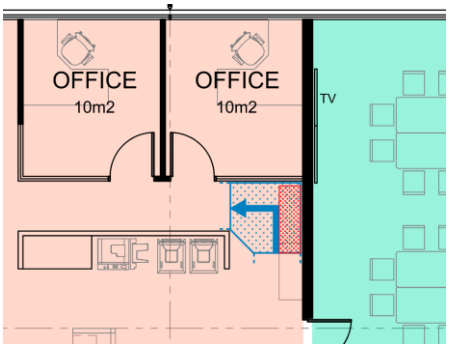


Figure 17: Furnishings in 90˚ Turning Space

AS1428.1-2009 Clause 13.2

The clear opening width of an accessible door leaf is to be not less than 850mm. It is to be confirmed how this will be achieved by the proposed constantina door system. Additionally, the system is to be provided compliant door hardware, operating forces, circulation space etc. as applicable to all doors within accessible spaces.

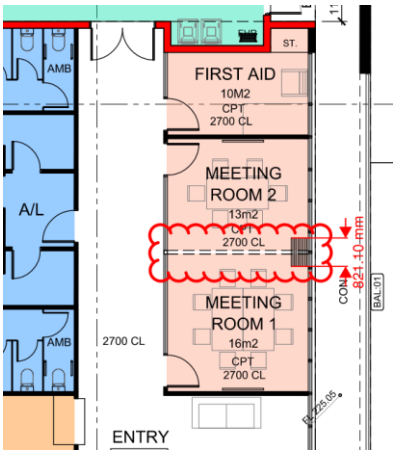


Figure 18: Constantina Doors

AS1428.1-2009 Clause 13.3

Clear circulation space is to be provided to both sides of a swinging door within an area required to be accessible in accordance with Figure 31. The required circulation space serving doors to the offices identified in the figure below are shown to be obstructed by proposed joinery elements. This is to be amended to ensure a clearance of 1670mm from the surface of the wall is maintained as required for a dual approach.

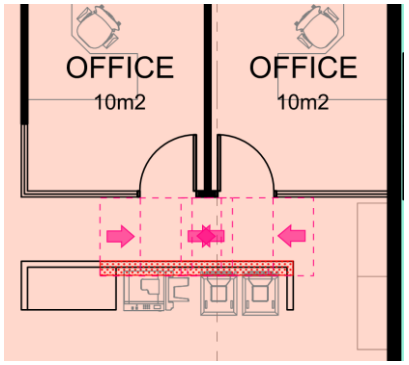


Figure 19: Impeded Door Circulation

Similarly, the required circulation space to the external doors serving the Class 7 and 8 parts of the upper level is encroached upon by the protective bollards. However, it is understood that these areas are exempt from being accessible and therefore compliance is achieved.

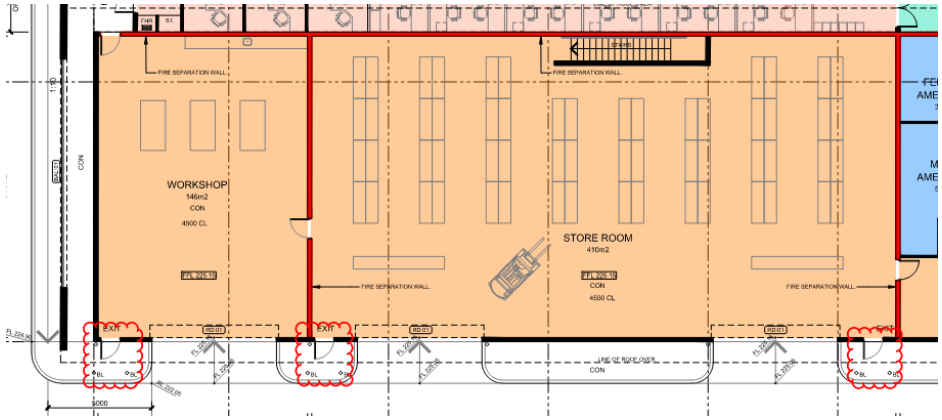


Figure 20: Non-Accessible Doors

D4D5

Exemptions: The following areas, and any path of travel providing access only to these areas, are not required to be accessible:

- An area deemed inappropriate to access due to the areas particular use
- An area that would pose a health or safety risk for people with a disability.

Comment: Access will generally be required throughout the building, however it is assumed that the Class 7 and 8 parts of the building, including the workshop, storage space where forklift or similar machinery is used and the factor/mower parking, will be deemed high risk areas for the safety of persons with disability and as such they have been excluded from this assessment.

This is to be confirmed by the project team and/or the building operator by way of a D4D5 Exemption Letter provided upon application for Construction Certificate. Where access is required to Class 7 and 8 parts, reassessment and additional coordination will be required.

D4D6

Accessible Parking: Accessible carparking spaces –

- Must be provided in accordance with the ratios set out in this clause.
- Must comply with AS 2890.6-2009

Comment: Compliance is readily achievable based on the provision of two car spaces in the open deck car park adjacent to the depot building. Further detail is to be provided along with application for Construction Certificate including demonstrating compliant surface grades, shared space, line marking etc.

D4D7 – D4D9 & D4D13

Accessible Installations: Braille signage, hearing augmentation, tactile indicators and visibility strip to glazed elements are to be installed in accordance with the relevant requirements of the BCA, AS 1428.1-2009 and AS 1428.5-2010 as applicable.

Comment: Compliance is readily achievable. Design certification is to be provided by the relevant consultants upon application for construction certificate.

D4D12

Ramps: Ramps are readily able to meet compliance with AS 1428.1 – 2009.

Comment: Compliance is readily achieved. Based on the architectural documentation, a compliant accessible ramp and associated features is proposed to be provided between the building and the accessible car parking bays.

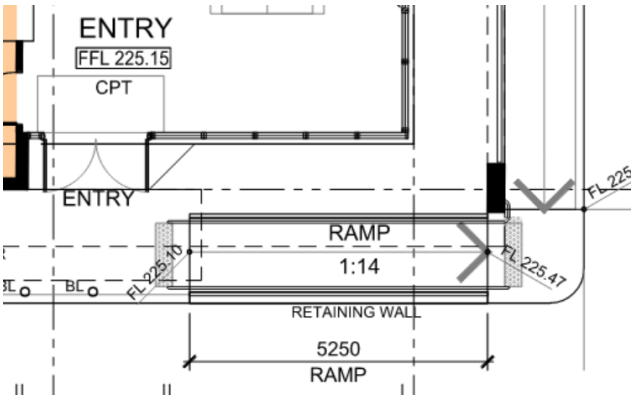


Figure 21: Accessible Ramp

The external ramps serving the lower level do not achieve compliant grades with the requirements of this clause and AS1428.1-2009, however it is understood that this area is proposed to be exempt from access and the ramps serve for egress purposes only.

F4D5

Accessible Sanitary Facilities: The provision of Unisex Accessible Sanitary Facilities and facilities suitable for use for persons with an ambulant disability satisfy the requirements of this clause.

Comments: Compliance is readily achieved. Room layout sheets and associated details are to be provided along with application for Construction Certificate.

3.0 Preliminary 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 compliance review.

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Automatic Fail Safe Devices	BCA 2022 Clause D3D26		*TBC*
Automatic Fire Detection & Alarm System	BCA 2022 Spec. 20 AS 1670.1 – 2018		✓
Building Occupant Warning System	Clause 3.22 of AS 1670.1 – 2018		*TBC*
Emergency Lighting	BCA 2022 Clauses E4D2 & E4D4 AS 2293.1 – 2018		✓
Emergency Evacuation Plan	AS 3745 – 2010		✓
Exit Signs	BCA 2022 Clauses E4D5, NSWE4D6 & E4D8 AS 2293.1 – 2018		✓
Fire Dampers	BCA 2022 Clause C4D15 AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 Manufacturer's Specification		✓
Fire Doors	BCA 2022 Clauses C3D13, C3D14, C4D4, C4D5 & 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		✓
Fire Seals	BCA 2022 Clause C4D15 AS 1530.4 – 2014 & AS 4072.1 – 2005 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		✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001		✓
Required Exit Doors (Power Operated)	BCA 2022 Clause D3D24(2)		*TBC*
Wall-Wetting Sprinklers	BCA 2022 Clause C4D5		*TBC*

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
	AS 2118.2 – 2010		
Warning & Operational Signs	BCA 2022 Clauses D3D26, D3D28, D4D7 & Spec. 14 AS 1905.1 – 2015 EP&A (DCFS) Regulation 2021 Section 108		✓
Fire Engineered Performance Solutions relating to: 1.	BCA 2022 Performance Requirements … Fire Safety Engineering Report prepared by … Report No. … Revision … dated …		*TBC*

Please note that the above schedule will need to be revised prior to issue of the Construction Certificate to reference any proposed Fire Engineering Report and incorporate any additional measures required by the proposed Performance Solutions.

4.0 Conclusion

This report contains an assessment of the referenced architectural documentation for the proposed Industrial Depot development located at 252 Coal Road, Muswellbrook, against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2022.

In view of the above assessment we can confirm that subject to the above measures being appropriately addressed by the project design team, compliance with the provisions of the BCA is readily achievable.

In addition, it is considered that such matters can adequately be addressed in the preparation of the Construction Certificate documentation without giving rise to any inconsistencies with the Development Approval.

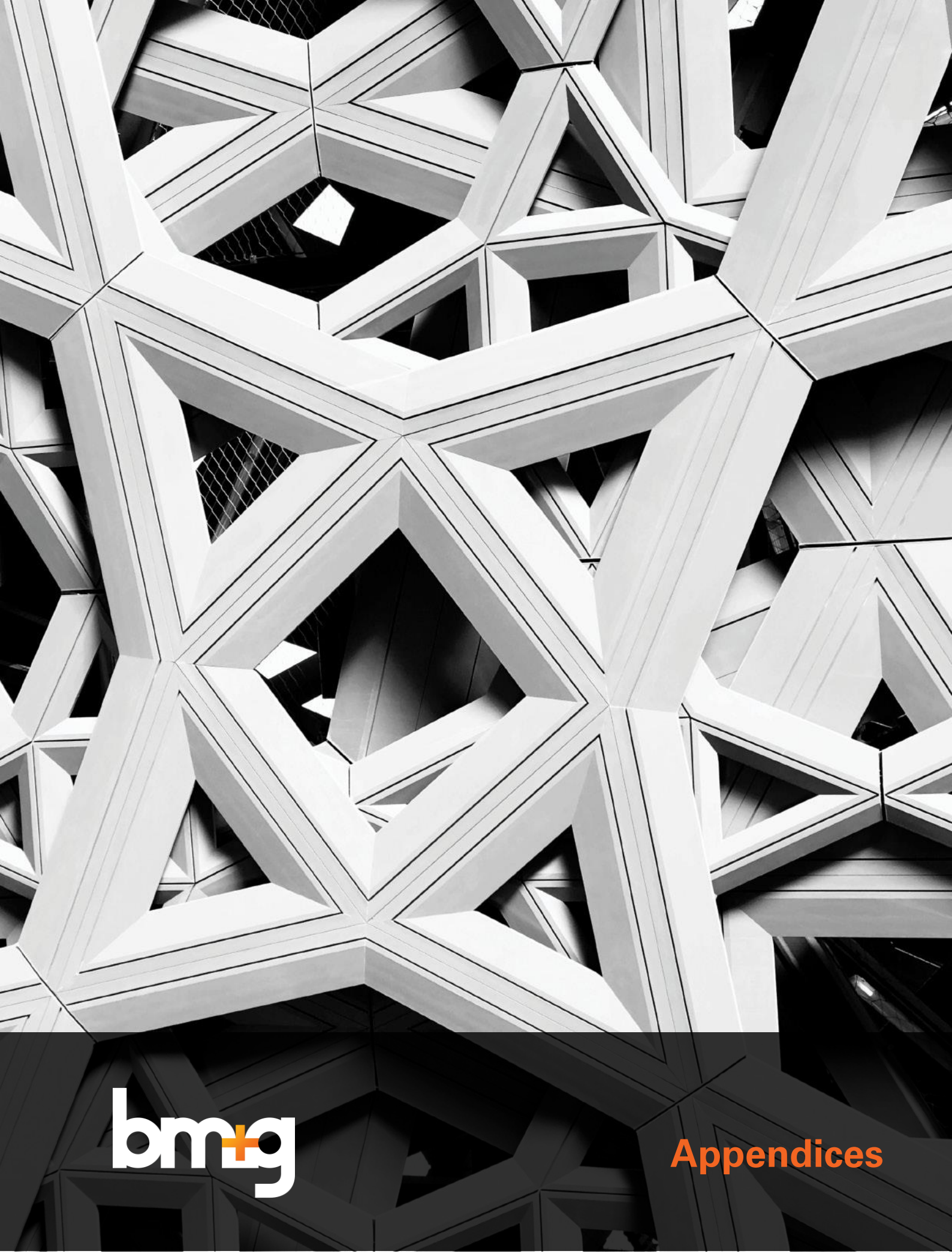
Should you require further assistance or clarification please do not hesitate to contact the undersigned on 02 4047 4955.

Prepared by:

Beth Simmons
Assistant Building Surveyor
BM + G Pty Ltd

Reviewed by:

Jake Hofner
Associate Director
BM + G Pty Ltd
BDC.: 2301
ACA: 731



Appendices

+ Appendix 1

TYPE C CONSTRUCTION: FRL OF BUILDING ELEMENTS				
+ 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.