BLACKETT MAGUIRE+ GOLDSMITH

# NCC – ACCESS EXISTING CONDITION REPORT

## RAY WALSH HOUSE

## (REFURBISHMENT)

**PREPARED FOR:**

Tamworth Regional Council C/-

NSW Public Works

Revision: 0
13 April 2023
Reference: 230026

Address
Suite 2.01,
22-36 Mountain St
Ultimo NSW 2007

Contact
Ph: 02 9211 7777
Fax: 02 9211 7774

## EXECUTIVE SUMMARY

The following comprises a summary of the key compliance issues identified following the due diligence audit of the existing Ray Walsh House conducted on the 15/03/2023.

The below summary outlines matter requiring consideration for upgrade as part of the proposed refurbishment project. Further information regarding recommendations for rectification works and general information can be found within the body of this report.

Further informational commentary has also been included within the body of this report and this includes matters that will be readily addressed by way of any re-purposing works. These items should be also noted by the design team.

Finalisation of any upgrade strategy for the building will need to be complete as part of future design/certification stages in consultation with relevant stakeholders including a Fire Safety Engineer and Fire Rescue NSW (as applicable)

### KEY COMPLIANCE ISSUES OVERVIEW:

| | BCA (DTS) CLAUSE | DESCRIPTION |
|---|---|---|
| 1. | C2D2 / Spec 5<br><br>Fire resistance and structural stability. | A number of elements requiring and FRL were identified at the time of inspection which:<br>- Require structural engineer to confirm FRL achieved for loadbearing concrete or masonry;<br>- Have intumescent spray with FRL to be confirmed;<br>- Where unprotected internal columns or beams requiring an FRL<br><br>Proximity of fire source feature to building to be confirmed with scaled site plans in future stage. |
| 2. | C2D3<br><br>Rise in storeys | No base building elevations have been provided. Confirmation is required that the effective height of the building is <25m. |
| 3. | C3D7<br><br>Vertical separation of openings in external walls | Non compliant spandresl identfied in a number of areas. Glass screen does not have non combustible flashing between storeys.<br>Confirmation of FRL achieved for vertical spandresl and the min 900mm is achived. |
| 4. | C3D13, C3D14<br><br>Separation of equipment | Main switch room was not fire seprrated from the raminder of the bnuilding. A number of rooms require electrical consutlant to review to detemine if battery capacity exceeds C3D13 limitations. |
| 5. | C4D3 & C4D9<br><br>Protection of openings in external walls<br><br>Opening in fire isolated exits. | Scaled floor and site plans are required to confirm distance from external wall, glazing and distance to fire source feature being the side boundaries.<br><br>The fire isolated stairs had windows will also require protection in accordance with the requirements of this Clause |
| 6. | C4D13 & C4D15<br><br>Shafts and Penetrations within fire rated elements | Existing floor and wall penetrations are to be upgraded to the degree necessary to ensure the new works comply. |

| | | |
|---|---|---|
| 7. | D2D5 & D2D6<br><br>Travel distances throughout | A number of travel diatsnces to an exit , point of choice to two exits does not comply being:<br>- 20m from basement car park<br>- Up to 30m to a point of choice in lieu of 20m from remaining storeys<br>- Up to 36m to single exit in lieu of 20m on level 3.<br>Convergenge issues <6m also identfied to be addressed through design stage.<br>Confirmation external balconies/ roof are intended for other than maintnance as this will require additional egress provision. |
| 8. | D2D7 D2D8 D2D9 D2D10<br><br>Dimensions of exits and paths of travel to exits | A number of areas where less than 2m in height and less than 1m in width -refer report. |
| 9. | D2D12<br><br>Travel via fire isolated exits | The basement has 2 x alternate exits dichargin into single fire siolated passage in lieu of sepratare.<br>The dicharge of pPeel street fire isolated exit was adjacent to unportected openings.<br>Fire isolated exits dicharge into area under the building with is less than permitted within D2D12. |
| 10. | D3D8<br><br>EDB / Comms cupboards | EDB/Comms cupboards/enclosures inspected varied in compliance some with metal flash plate others only timber face doors. Multiple areas required penetrations to be upgrades as part of the works. |
| 11. | D3D9<br><br>Enclosure of space under stairs | Enclosures are not permitted under fire isolated stairs. A locked cupboard was identified within the fire isolated passageway from car park towards peel street exit. |
| 12. | D3D14, D3D15, D3D22, D4D9 & AS 1428.1-2009<br><br>General circulation stairways / fire isolated and handrails | A number of issues in regards to stair compliance, consitant risers and goings, handrils – refer report. |
| 13. | D3D16<br><br>Door threshold | A number of door thresholds do not comply with in that they are in a location not premitted, are not accessible or exceed 190mm step- - refer report.<br>Doors in areas did not have a landing for at least the width of the door. |
| 14. | D3D17, D3D18, D3D19, D3D20<br>Balustrades throughout | A number of issues in relation to non compliant balustardes of varying types with overal height and gaps pemitted not complying – refer to report. |
| 15. | D3D24, D3D25 & D3D26<br>Doors and door hardware throughout | Door hardware with the likes of door nobs or drops bolts idendies throughout. Confirmation mag locked doors unlatch on activation of smoke deteciton required.<br>A fire isolated exit doors encrach more than 500mm on the required width of the exit. |
| 16. | D3D29<br><br>Protection of openable windows. | A number of openable windows where identified throughout which require window protection or barrier. |

| | | |
|---|---|---|
| 17. | E1D2<br><br>Fire Hydrant System | A number of compliance issues in relation to fire hydrnats provision including:<br>- Ordancae 70 system not supported by FRNSW;<br>- Heights and clearances do not comply<br>- Internal fire hydrnats not located within fire isolated stair but quasi fire seprated corrdior;<br>- Location of internal fire hydrnats in some area more than 4m from an exit;<br>- Hydrant booster assembly was locked and installed on flight of stairs less than 10m from non sprinkler procted building.<br>- Confirmation of covergae through to be confirmed through deisgn stages. |
| 18. | E1D3<br>Fire Hose Reels | A number of compliance issues in relation to fire hose reel provision including:<br>19. No Fire Hose reels were installed within the basement car park.<br>20. A number of hose reels were located in corridors that had fire doors enclosing the space. Fire hose reels are not permitted to pass through fire doors.<br>21. Locations and clearances of fixtures to be reviewed by hydraulic consultant.<br>22. Signage to be upgrade to colour contrast in accordance with AS2441 -2005.<br>23. Items other than for fire services installed within FHR cupboard. |
| 24. | E1D5 & E1D9<br><br>Sprinklers | The basement car park was noted to have in excess of 40 vehicles (approx. 49) and a sprinkler system was not installed.<br>Confirmation by way of scaled elevations are required to confirm if the building effective heights exceeds 25m requiring sprinkler system |
| 25. | E2D3, E2D4<br>Fire detection and alarm system | The buildgin had smoke detction shortfalls throughout<br>An external strobe is required at the FIP<br>Confirmation required if fire isolated passageways exceed 60m requiring striar pressurisstion<br>Automatic shutdown of meancinacl ventilation on activation of smoke detection to be confirmed |
| 26. | E4D2, E4D4, E4D5 & E4D8<br><br>Emergency lighting and exit/directional signage | Throughout the existing building there was emergency lighting coverage and exit and directional signage shortfalls which would need to be upgraded this is to ensure that all of the available exits are identified in line with the required exits to achieve the required travel distances. |
| 27. | F4D3, F4D4<br><br>Sanitary facilities | Confirmation required for max expected population for refurbishment works so adequate provision can be confirmed. |
| 28. | D4D3<br><br>Access to buildings | Access was provided by way of ramp from the Peel street entry point however this is no accessible entry point from Kabel avenue being further than 50m from accessible entry point.<br><br>The ramp has aspects that did not comply with AS1428.1 being 90 degree turn space being less than required. Overall gradient to be confirmed.<br><br>There was no accessible car parking provided (See D4D6) however if this was to be provided within existing basement car park there is not an accessway to reach pedestrian lifts. |
| 29. | D4D2 & D4D3<br><br>Continuous accessible path of travel including internal ramps. | a) The provision of compliant access to the level 4 external balcony was not achieved.<br>b) Muiple doors widths and paths do not comply with AS1428.1 – ref later in the report.<br>c) Non compliant door hardware in a number of locations;<br>d) Visual indicators (glass decals) will need to be upgraded throughout. Where located on the affected part upgrade works will be required as part of any proposed works within the building. |

| | | |
|---|---|---|
| | | Confirmation is required is external balconies are intnededd for public access as DDA access was not provided. |
| 30. | D4D6<br><br>Accessible carparking | There is no accessible car parking provided within the building. Should this be located in basment area there is not an accessway to lifts and heights are less than 2.2m and 2.5m above space. |
| 31. | Cl. 13 AS 1428.1-2009<br><br>Doorway clearances/ hardware and Circulation space - Throughout | A number of the rooms which are not provided with compliant circulation space or have door width less than 850mm clear width. |
| 32. | F4D5<br><br>Accessible Sanitary Facilities | The existing building currently has a single accessible unisex facility located on ground floor only and no male or female facilities suitable for a person with an ambulant disability. The building would require an accessible unisex sanitary facility and a male and female ambulant facility on every storey where facilities are provided. |

## CONTENTS



**REPORT STATUS**

| DATE | REVISION | STATUS | AUTHOR | REVIEWED |
|---|---|---|---|---|
| 13/04/2023 | 0 | Draft - Issued for review and comment | PK | JH |

**Prepared by:**


Peter Keppie
***Senior Building Surveyor***
***Blackett Maguire + Goldsmith***
Building Surveyor *(NSW)*


**Reviewed by:**


Jake Hofner
***Senior Building Surveyor***
***Blackett Maguire + Goldsmith***
Building Surveyor-Unrestricted *(NSW)*
*BDC No. 2309*

# A. INTRODUCTION

## A.1 BACKGROUND / PROPOSAL

Blackett Maguire + Goldsmith Pty Ltd (BM+G) have been commissioned by Tamworth Regional Council c/o NSW Public Works to undertake a high level audit of Ray Walsh House and assess existing site condition against BCA 2019/2022, existing Fire Safety Measures (AFSS) and Access standard.

Noting BCA 2022 comes into force the 1st of May 2023 this will be the Code in force for the project. BCA 2022 along with Part D4 (Access for people with a disability) and AS1428.1 – 2009 will be used as benchmark for project for the purpose of identifying any existing compliance matters requiring resolution and or consideration as part of any refurbishment works.

Ray Walsh House located 435 – 437 Peel Street Tamworth is located as depicted below.

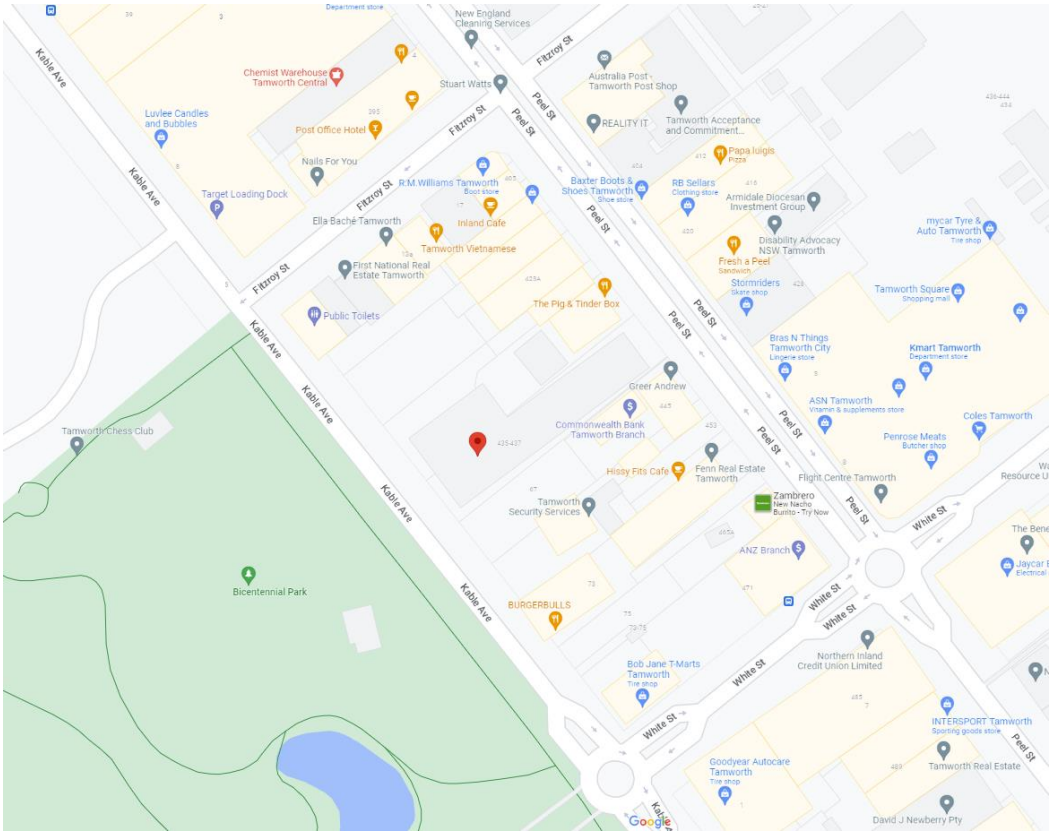



*Figure 1*

The due diligence audit will highlighting inequities, current risks and opportunities, and future options for the Ray Walsh House in regards to refurbishment works.

## A.2 AIM

The aim of this report is to:

+ Undertake a site inspection of the existing building to establish the current level of BCA compliance against the Deemed-to-Satisfy (DtS) provisions of Part C, D, E, and F including AS 1428.1-2009 as applicable to the access provisions. The below assessment is based on using BCA 2022 as a benchmark document regardless of the age or applicable BCA at the time of construction.
+ Identify any BCA compliance issues and provide recommendations with respect to upgrade and/or Performance Solutions where appropriate to provide.

## A.3 DOCUMENTATION

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

+ BCA 2022 (Preview Version)
+ Building Code of Australia 2019 including Amendment 1,

- Guide to the Building Code of Australia 2019 including Amendment 1,
- Architectural drawings by Form line Group provided by Tamworth Regional Council.

| DRAWING NO. | REVISION | DATE |
|---|---|---|
| Ground Floor Plan | - | 24/02/2020 |
| First Floor Plan | - | 24/02/2020 |
| Second Floor Plan | - | 24/02/2020 |
| Third Floor Plan | - | 24/02/2020 |
| Fourth Floor Plan | - | 24/02/2020 |

## A.4 REGULATORY FRAMEWORK

Pursuant to clause 6.28 of the Environmental Planning and Assessment Act 1979, Crown building works must not be commenced unless the Crown building works is certified by or on behalf of the Crown to comply with the Building Code of Australia in force as at;

(a) The date of the invitation for tenders to carry out the Crown building work, or

(b) In the absence of tenders, the date on which the Crown building work commences, except as provided by this section.

No construction works are currently proposed to the Ray Walsh House, in this regard the applicable BCA will be confirmed as part of any future works associated with the project.

## A.5 LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- This report provides an audit of all levels where access was available of the building based on our review of the documentation provided to our office and our visual inspection on the 15th of March 2022.It is noted a number of areas were sealed for asbestos and where not inspected on the say.
- This report relates to the existing building only and the findings have been based off using the future BCA (BCA 2022) as a benchmark. Wherever any potential re-purposing scope is noted within this report the advice provided is high level in nature and subject to further review in subsequent design stages.
- No assessment has been undertaken with respect to the existing building structure (Section B of the BCA), including the structural adequacy of the building. A suitably qualified Engineer should be consulted with to determine the level of compliance and suitability of any future works within the building.
- It is not the intent of this report to constitute a thorough and intrusive/destructive investigation of all concealed spaces in the building and is therefore not to be mistaken as a verification that all building elements and services are constructed according to the relevant requirements of the BCA at the time of construction.
- Depending on the age of the building and existing forms of construction, it is not always possible to upgrade an existing building to fully comply with the provisions of the current BCA. We note that this may include the development of Performance Solution/s by appropriately qualified consultant/s, to satisfy the relevant Performance Requirements of the BCA. Relevant upgrade strategies will be developed as part of future design stages.
- No assessment has been undertaken with respect to the Disability Discrimination Act 1992 (DDA). The building owner should be satisfied that their obligations under the DDA have been addressed. Whilst this report has not assessed the building against the DDA Act 1992 we note that an Access assessment against Part D3 and AS 1428.1-2009 has been undertaken being the minimum benchmark for compliance having regards to the BCA.
- The Report does not address matters in relation to the following:
  - Local Government Act and Regulations.
  - Occupational Health and Safety (OH&S) Act and Regulations.
  - WorkCover Authority requirements.
  - Water, drainage, gas, telecommunications and electricity supply authority requirements.
  - BM+G Pty Ltd do not guarantee acceptance of this report by Local Council, NSW Fire Brigades or other approval authorities.
- No part of this document may be reproduced in any form or by any means without written permission from BM+G Pty Ltd. This report is based solely on client instructions, and therefore should not be used by any third party without prior knowledge of such instructions.

## A.6 TERMINOLOGY

***Alternative Solution***
Means a Performance Solution

***Building Code of Australia (BCA)***
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 New South Wales (NSW) under the provisions of the EPA Act and Regulation. Building regulatory legislation stipulates that compliance with the BCA Performance Requirements must be attained and hence this reveals BCA's performance-based format.

***Construction Certificate***
Building Approval issued by the Certifying Authority pursuant to Part 4A of the EPA 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 C1.1 and Specification C1.1, except as allowed for—
(i) certain Class 2, 3 or 9c buildings in C1.5; and
(ii) a Class 4 part of a building located on the top storey in C1.3 (b); and
(iii) open spectator stands and indoor sports stadiums in C1.7.
Note: Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.

***Climatic Zone***
Is an area defined in BCA Figure A1.1 and in Table A1.1 for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.

***Deemed to Satisfy Provisions (DtS)***
Provisions 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 the rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or equipment, water tanks or similar service units).

***Fire Resistance Level (FRL)***
The grading periods in minutes for the following criteria-
(a) structural adequacy; and
(b) integrity; and
(c) insulation,
and expressed in that order.

***Fire Source Feature (FSF)***
The far boundary of a road which adjoins 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.

***National Construction Code Series (NCC)***
The NCC was introduced 01 May 2011 by the Council of Australian Governments. The BCA Volume One (Class 2 to 9 Buildings) is now referenced as the National Construction Code Series Volume One — BCA.

***Occupation Certificate***
Building Occupation Approval issued by the Principal Certifying Authority pursuant to Part 4A of the EPA Act 1979.

***Open Space***
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.

***Performance Solution (Alternative Solution)***
Means a method of complying with the Performance Requirements other than by a Deemed-to-Satisfy Solution.

***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-
(a) complying with the DtS Provisions; or
(b) formulating an Alternative Solution which-
    i. complies with the Performance Requirements; or
    ii. is shown to be at least equivalent to the DtS Provisions; or
(c) a combination of (a) and (b).

# B. BUILDING CHARACTERISTICS

## B.1 SUBJECT SITE

Ray Walsh House is located 435 – 437 Peel Street Tamworth. The building is 50 + years old and has until recently been used as the Tamworth City Council Administration Headquarters.

The Ray Walsh House is bounded by both Peel Street and Kable Avenue as shown below in Figure 1.


*Figure 2: - Aerial View (Source: Google maps)*

## B.2 EXISTING BUILDING CLASSIFICATIONS

The following table presents a summary of relevant building classification items in relation to the subject building known as the Ray Walsh House. It is noted no existing approval information has been supplied the below is based on use and characterises identified within site audit and may be subject to change dependant on proposed refurbishment works.

| | |
|---|---|
| **BCA Classification:** | Class 5 (Administration/Offices/Workstations)<br>Class 7a (Carpark)<br>Class 9b (Function Room / external area) |
| **Rise in Storeys:** | Seven (7)<br>*Note: The lift machine room located on top of the building has not been considered in rise of storeys.* |
| **Storeys Contained:** | Seven (7) |
| **Type of Construction:** | Type A Construction |
| **Importance Level (Structural):** | Three (3) |
| **Sprinkler Protected Throughout:** | No |
| **Effective Height:** | Greater than 12m. Not more than 25m (TBC) |
| **Climate Zone:** | Energy Efficiency Zone 4 |

Note: Ground level; loading dock <10% of floor area not assigned BCA Classification as per A6

## B.3 DISABILITY (ACCESS TO PREMISES) STANDARDS 2010 - AFFECTED PART

Any new proposed works will need to comply with the accessibility requirements of BCA Part D4 and the Disability (Access to Premises) Standards 2010. The Disability (Access to Premises-Buildings) Standards 2010 outlines the minimum compliance requirements (in part) that access to buildings, facilities and services within a building is provided for people with a disability.

Having regards to the existing building classifications, BCA Part D3 requires access for a person with a disability to be provided to and within all other areas normally used by the occupants.

Access need not be provided to:

- An area where access would be inappropriate because of the particular purpose for which the area is used.
- An area that would pose a health or safety risk for people with a disability.
- Any path of travel providing access only to an area exempted by (a) or (b).

Access for a person with a disability will be required to be provided to and within all refurbished/modified areas of the existing building in accordance with the Disability (Access to Premises-Buildings) Standards 2010 and the DTS provisions of the BCA.

This will require the paths of travel from the main building entry to each of the area's refurbishment (which is deemed as the 'affected part') to comply with the access provisions of the BCA & AS 1428.1-2009 in terms of access pathways, doorways within the path of travel to the new works, provision of accessible lifts etc.

The affected part being the area requiring upgrade works as a result of the proposed works will need to be clarified as part of future design stages the upgrade works required will depend on the extent of refurbishment works proposed.

## B.4 BCA FIRE SAFETY UPGRADE STRATEGY

With regards to any proposed refurbishment works or re-purposing of the existing Ray Walsh House, the fire safety upgrade of the building will be generally triggered on the basis of: -

- Any change in Building Classification and characteristics (BCA Part A6)
- Increased population numbers
- Increase in floor area.
- Increase in any fire and life safety risk to existing (and future) occupants as a result of any new building works
- Upgrade requirements imposed by the Consent Authority or Fire & Rescue NSW (FRNSW)
- Reliance on existing compartment walls as part of the new works, if the existing compartment walls have compliance deficiencies.
- Any significant non-compliances in the existing building which warrant immediate upgrade.

The below report outlines the BCA compliance issues associated with the existing building having regards to the current BCA requirements (BCA 2022).

The extent of upgrades to the existing building will be driven by the above triggers where the proposed building works include minor and or major refurbishment works it should be anticipated that upgrade works will be required.

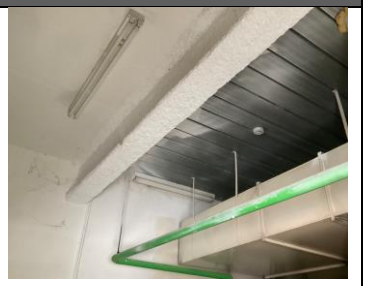
Final details with respect of the required upgrade works required will be confirmed as part of future approval processes however in addition to minimum upgrade requirements key compliance issues associated with the existing building which would need to be considered as part of any works within the Ray Walsh House have been outlined in the below table.

## C. AUDIT FINDINGS AND RECOMMENDATIONS

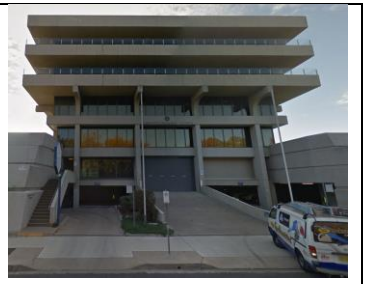
The following list comprises a summary of the BCA/Access compliance issues and recommendations as identified during the inspection of the subject building conducted on 15th March 2023 and our documentation review. To assist in determining any actions required out of the existing site condition audit the below key has been provided.

**KEY:**

| | |
|---|---|
| + **Compliance Readily Achievable:** | The existing building will readily achieve compliance and/or minor works required to achieve compliance. |
| + **Further Information Required:** | Further details are required to be provided in subsequent design stages to demonstrate compliance, |
| + **Performance Solution:** | A Performance Solution is required/proposed to demonstrate compliance with the Performance Requirements of the BCA |
| + **Does Not Comply/Rectification works Required:** | The proposal does not comply and rectification works are recommended to be undertaken as part of re-purposing/refurbishment works as a result |
| + **Note:** | Informative Note |

| # | BCA 2022 Clause / Australian Standard | Location | Description of Compliance Issue | Comment / Recommendations | Photos / Plan & Document Excerpts |
|---|---|---|---|---|---|
| 1. | C2D2 / Spec 5<br><br>2019 Amdt 1 ref C1.1 Spec C1.1 | Fire resistance and structural stability. | a) Arising from the building classification and rise in storeys, Type A Construction is required throughout this would necessitate generally 2hr (FRL 120/120/120 [loadbearing] -/120/120 [non-loadbearing]) fire rating throughout.<br><br>The existing structural system generally comprised a mixture of concrete construction including concrtete encased steel columns with supporting steel beams in areas. The roof strucutre was concrete consistent with a building of type A construction. Notwithstanding, the following outline a number of compliance issues noted during the site inspection;<br><br>+ Protected steel columns identified in areas however no information has been provided in regards to product used or FRL achieved.<br><br>+ Unprotected internal steel columns noted in upper storeys in a case where requiring protection (i.e. loadbearing) suporting element required to have FRL.<br><br>+ The existing roof is concrete with metal with cast in metal formwork suported by unprotected steel columns. Confirmation is required if exposed formwork is required for roof FRL or sacrificial. Internal loadbearing columns require FRL as no sprinklers and <25m effective height TBC. | **Further Information Required Does Not Comply/Rectification works Required / Performance Solution:**<br>a) With regards to any proposed refurbishment works and/or re-purposing, new building elements are required to achieve the required FRL's nominated under BCA Spec. 5, including Spec 5C11.<br><br>Fire rating requirements will need to be confirmed by a suitably qualified structural engineer, as part of future design stages. Where a future use is proposed as part of any major refurbishment works and as a result of the building classification contitute a higher FRL requirement further investigative works will be required in order to determine the adequacy of the existing structure. Further fire protective works may need to be provided accordingly.<br><br>The upgrading of any existing structural system which requirs an FRL will need to be considered based on the extent of refurbishment works proposed and the location of the refurbishment works. We note also that structural input would also be required in terms of elements being loadbearing vs non-loadbearing.<br><br>Where existing elements are critical to the new works i.e. supporting structural elements, it will be recommended that these elements be upgraded.<br><br>Given the heavy refurbishment works being undertaken and reliance on a number of the existing structural elements upgrade works |  <br>*Figure 3*<br>  <br>*Figure 4*<br>  <br>*Figure 5* |

| | | | | | |
|---|---|---|---|---|---|
| | | | + Service shafts consisted of masonry construction with timber doors some with flash plates.<br><br>b) Whilst no detailed site survey information was available at the time of the inspection, the building has potential to be exposed to fire source feature <3m. | required and/or rationalisation under a fire engineering strategy will be required.<br>**Further Information Required:**<br>b) Location of allotment boundarys will need to be confirmed as part of future refurbishment works and any additional extentions to the existing building. Identification on floor plans required for assessment for proximity to fire source feature.<br>c) Shafts shall be ecnlosed at the top and bottom of risers.<br>d) It was identified a rain screen or glazed panel was installed to perimter of the building, confirmation required this is not cavity connecting storeys. See spandrel also. |  <br>*Figure 6*<br>  <br>*Figure 7*<br>  <br>*Figure 8* |

| | | | | | |
|---|---|---|---|---|---|
| 2. | C2D3<br><br>2019 Amdt 1 ref C1.2 | Calculation of rise in storeys / Effective Height | The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and<br>any storeys within the roof space—<br>above the finished ground next to that part; or<br>(a) f part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part<br>(b) of the boundary.<br>A storey is not counted if—<br>it is situated at the top of the building and contains only heating, ventilating or lift equipment, water tanks, or similar service units or equipment;<br><br>Effective height means the vertical distance between the floor of the lowest storer included in the rise of storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks | **Further Information Required:**<br>The building is indicated to have a rise of storeys of 7 not including the lift motor room.<br><br>No base building elevations have been provided. Confirmation is required that the effective height of the building is <25m.<br>For the purpose of this assessment it is assumed less than 25m. Reassment will be required where not the case, |  <br>*Figure 9*<br>  <br>*Figure 10* |
| 3. | C2D10 & C2D14<br><br>2019 Amdt 1 ref C1.9/C1.14 | External wall and ancillary elements | No material product data sheets and/or test reports are available for the existing external wall construction, All components of the external wall including façade covering, framing insulation are required to be non-combustible under the BCA.<br>The external walls are noted as being made up of a number of different wall materials including concrete and masonry with any lightweight TBC. Internal framing, sarking insulation was concealed at the time of the inspection as such we cannot confirm makeup | **Further Information Required:**<br>Further investigation required to determine make up of external wall however it is outside the scope of this report.<br>Any products of concern with respect of this clause will need to be considered from a rectification standpoint based on the extent of re-purposing works proposed. This will be determined as part of future design stages.<br>**Compliance Readily Achievable:**<br>All new works need to comply with current requirements in terms of non-combustibility and this extends to any external walls. |  <br>*Figure 11*<br>  |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | *Figure 12* |
| 4. | C2D11<br><br>2019 Amdt 1 ref<br>C1.10 (incl NSW variations) | Fire Hazard Properties - Floor, Wall and Ceiling Linings Throughout | No material product data sheets and/or test reports are available for the existing floor, wall and ceiling linings throughout building, there are a number of different wall materials noted. | **Note:**<br>Due to the age of the building, no material product data sheets and/or test reports are available for the existing floor, wall and ceiling linings.<br>As such, unless specifically required under any future fire engineering strategy, no assessment of the existing floor, wall and ceiling linings will be required. It is important to note that any new floor, wall and/or ceiling linings will be subject to assessment to ensure that compliance with BCA Clause C2D11 is achieved. |  <br>*Figure 13*<br>  <br>*Figure 14* |
| 5. | C3D7<br><br>2019 Amdt 1 ref<br>C2.6 | Vertical separation of openings in external walls | As the building is not sprinkler protected, vertical separation of openings (spandrel separation) in external walls is required in accordance with BCA cl. C3D7<br>The building is not provided with compliant spandrel separation in several locations throughout the building and the makeup of the external walls in areas not known and likely would not achieve the required FRL under this clause i.e. 60/60/60. | **Does Not Comply/ Further Information Required/ Performance Solution:**<br>Whilst makeup of external walls is unknown it was identified that some areas had >600mm upturn (approx. 800mm) the total 900mm and FRL 60 minutes would need to be confirmed.<br><br>Parts of the building had glass screen/ curtain wall with non-combustible material within cavity e.g. metal flashing between storeys.<br><br>Areas had what appeared to be vertical spandrel however appeared less than 1100mm with FRL to be confirmed. |  <br>*Figure 15* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Where the introduction of additional fire rated spandrels is not feasible, there may be scope for the spandrel separation to be considered under a fire engineering strategy through a mixture of horizontal and vertical fire rated elements and or the introduction of additional fire safety measures. This strategy would be subject to radiant heat calculations to demonstrate fire spread would not occur vertically via the façade further consultation will be required with a fire safety engineer in this regard.<br>The above however would also require consideration of the type of external wall product installed within the building. Further consultation with a Fire Safety Engineer will be required as part of future design stages accordingly. |  <br>*Figure 16*<br>  <br>*Figure 17*<br>  <br>*Figure 18* |

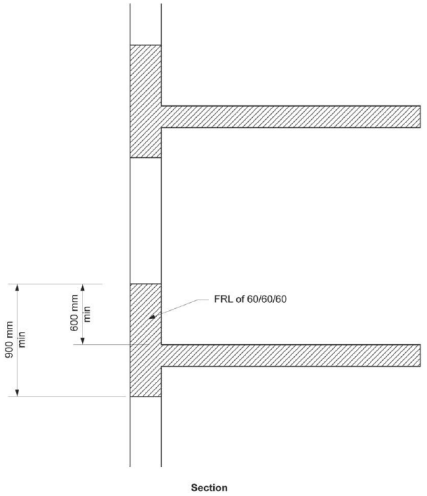



*Figure 19*

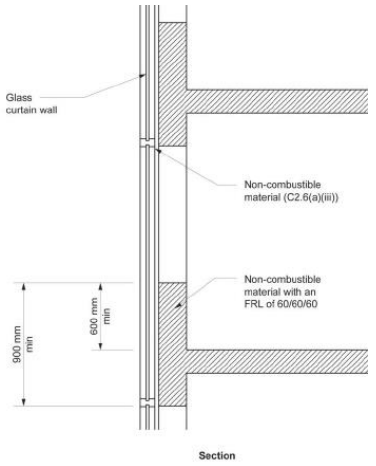



*Figure 20*

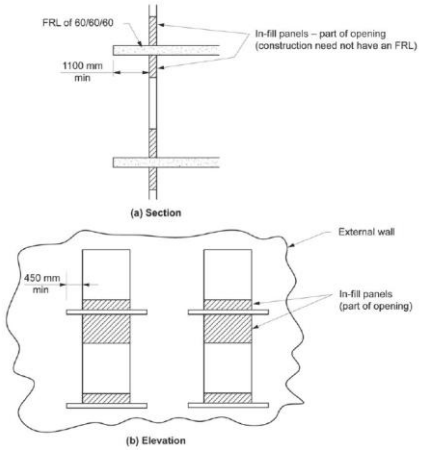
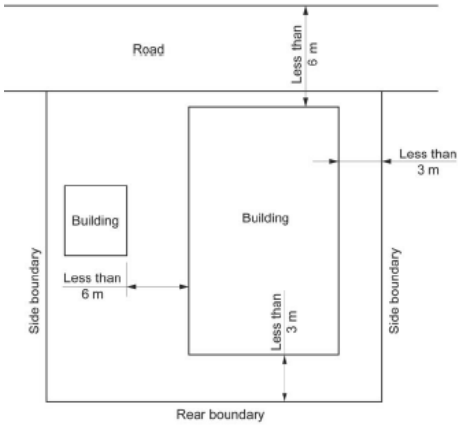
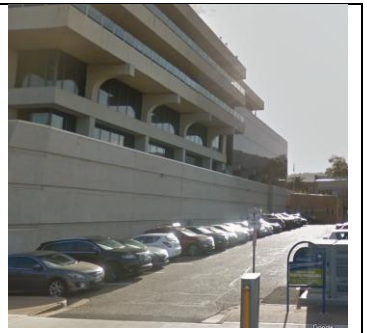
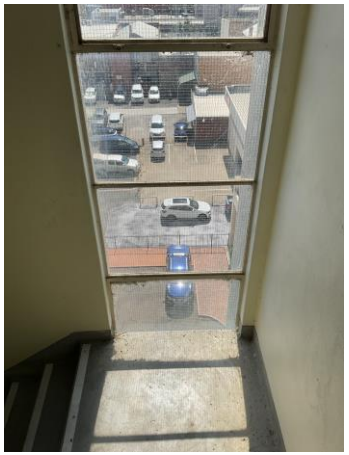


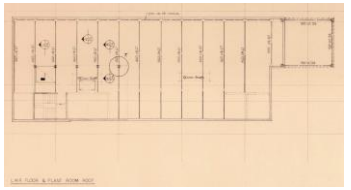
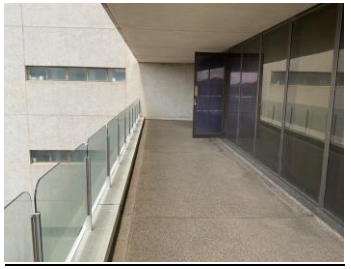

*Figure 21*

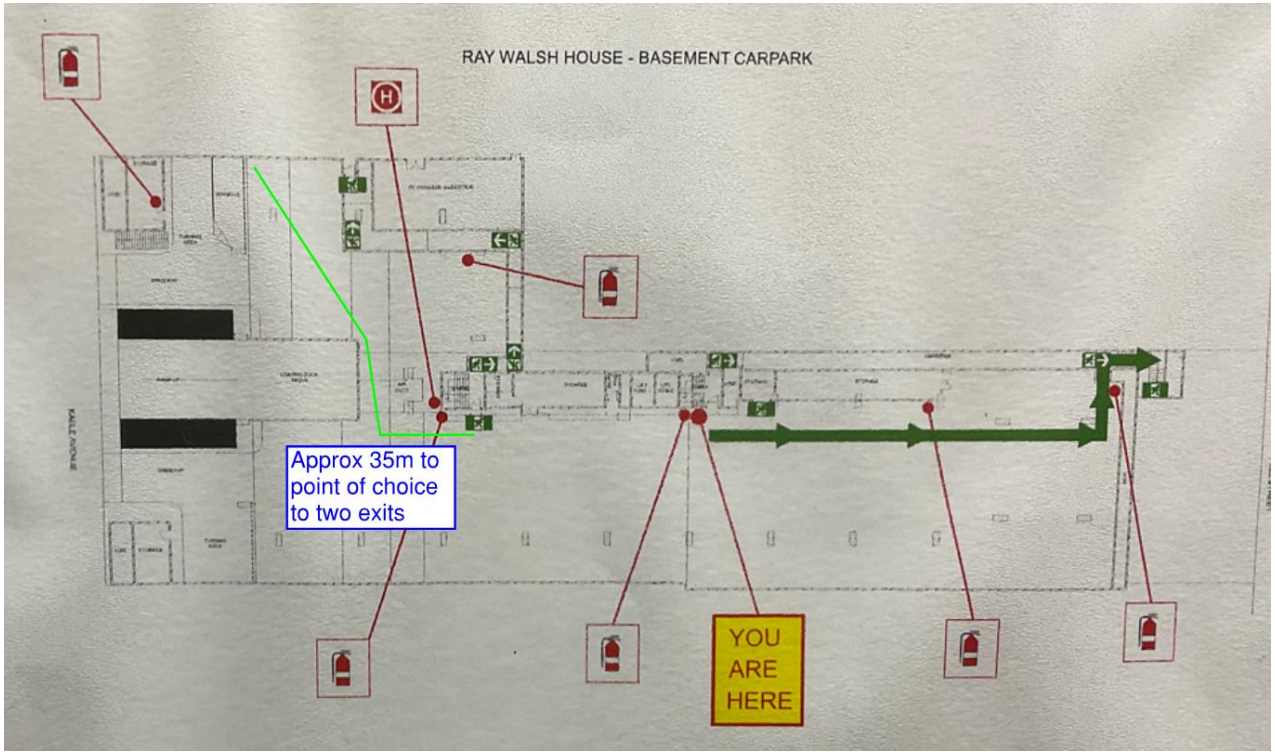
| | | | | | |
|---|---|---|---|---|---|
| 6. | C3D9, C3D10<br><br>2019 Amdt 1 ref C2.8 & C2.9 | Separation between classification in different storeys | Based on the existing building classifications, generally FRL's throughout are required to achieve 120min throughout.<br>Existing FRL's are not known based on the visual inspections undertaken to date and would need to be confirmed by a suitably qualified structural engineer as part of future works. | **Note:**<br>We note that the proposed works are not proposed to change any of the existing building classifications. This will need to be further reviewed in future design stages to ensure compliance.<br>Where significant compliance issues exist such as building elements relied upon as part of the works not having a fire rating in a case where required | |
| 7. | C3D13, C3D14<br><br>2019 Amdt 1 ref C2.12, C2.13 | Separation of equipment | Access to Comms Rooms, Equipment Rooms, Plant Rooms and the like was not obtained during our inspection. | **Does Not Comply/ Further / Further Information Required:**<br>Electrical contractor to review equipment specified under this clause (i.e., emergency generators used to sustain emergency equipment operating in the emergency mode, a battery system installed in the building which has a total voltage of 12 volts or more and a storage capacity of 200kWh or more) and verify whether the equipment has been separated from the remainder of the building by construction having an FRL as required under Spec C1.1 but not less than 120min.<br>. Not all electrical rooms where available to inspect and where locked at the time of inspection.<br>**Compliance Readily Achievable**<br>Upgrade works to the existing equipment rooms will need to be reviewed in conjunction with any proposed works to ensure the existing construction complies. Also any new penetrations are appropriately treated in accordance with C34D15 of the BCA | |
| 8. | C3D14<br><br>2019 Amdt 1 ref C2.13 | Main switchboard | It was noted the main switch board located on ground level was not fire separated from remainder of building. | **Further Information Required:**<br>The electrical consultant will need to review existing distribution cupboards and main switch boards and confirm any equipment which sustains emergency equipment which may operate in the emergency mode.<br>Where there is equipment which sustains emergency equipment and it is proposed to be altered or located in the area of re-purposing work the bounding construction will need to be upgraded to achieve a minimum FRL of 120min. |  <br>*Figure 22* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | **Compliance Readily Achievable**<br>All remaining electrical cupboards, comms cupboards and the like will need to be upgraded so that they are separated from the remainder of the building by non-combustible construction refer D3D8 of the BCA. |  <br>*Figure 23* |
| 9. | C4D3 & C4D9<br><br>2019 Amdt 1 ref C3.2 | Protection of openings in external walls<br><br>Opening in fire isolated exits. | 1) Subject to (2), openings in an external wall that is required to have an FRL must be protected in accordance with C4D5, and if wall-wetting sprinklers are used they must be located externally.<br>2) The requirements of (1) only apply if the distance between the opening and the fire-source feature to which it is exposed is less than—<br>a) 3 m from a side or rear boundary of the allotment; or<br>b) 6 m from the far boundary of a road, river, lake or the like adjoining the allotment, if not located in a storey at or near ground level; or<br>c) 6 m from another building on the allotment that is not Class 10<br>3) Openings in an external wall that is required to have an FRL, if required to be protected under (1), must not occupy more than 1/3 of the area of the external wall of the storey in which it is located unless they are in a Class 9b building used as an open spectator stand.<br>A window in an external wall of a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp must be protected in accordance with C4D5 if it is within 6 m of, and exposed to, a window or other opening in a wall of the same building, other than in the same fire-isolated enclosure. | **Further Information Required:**<br>Scaled floor and site plans are required to confirm distance from external wall, glazing and distance to fire source feature being the side boundaries.<br>  <br><br>**Further Information Required:**<br>The fire isolated stairs had windows will also require protection in accordance with the requirements of this Clause. Scale floor and site plans are required. |  <br>*Figure 24*<br>  <br>*Figure 25* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 26*<br>  <br>*Figure 27* |
| 10. | C4D13 & C4D15<br><br>2019 Amdt 1 ref C3.15 | Opening in floors and ceilings for services<br><br>Penetrations within fire rated elements | 1) Where a service passes through—<br>a floor that is required to have an FRL with respect to integrity and insulation; or<br>2) A service must be protected—<br>in a building of Type A construction, by a shaft complying with Specification 5; or<br>in accordance with C4D15 | **Further Information Required:**<br>The floor plans provided indicate the building has a number of shafts whereby access was not possible to review condition.<br>Structural engineer would be required to confirm FRL where masonry construction. |  <br>*Figure 28* |

| | | | | | |
|---|---|---|---|---|---|
| | | | The requirements of (2) apply where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or<br>other service penetrates a building element (other than an external wall or roof) that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire. | **Does Not Comply/Rectification works Required**<br>Existing floor and wall penetrations are to be upgraded to the degree necessary to ensure the new works comply.<br><br>It is expected given the age of the building there will be numerous areas requiring rectification once ceiling is removed.<br>The main switch board and other plant area had a number of defiance within requiring attention once FRL of elements passing is confirmed. |  <br>*Figure 29*<br>  <br>*Figure 30*<br>  <br>*Figure 31* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 32* |
| 11. | D2D3<br><br>2019 Amdt 1 ref CD1.2 | Number of exits required | Every storey must have at least one exit from each storey.<br>In additional not less than 2 exits must be provided if the building has an effective height more than 25m. | **Further Information Required:**<br>The plant room and lift machine room have access to single exit only. Confirmation is required the building has an effective height <25m (assumed). |  <br>*Figure 33* |
| 12. | D2D5 & D2D6<br><br>2019 Amdt 1 ref D1.4 & D1.5 | Travel distances throughout | Having regards to the number of available exits within the building, compliance with respect of travel distances is readily achievable generally throughout pending resolution of a number of items set out within this report.<br>It is noted where partitioning is removed specific area this will improve egress arrangements.<br>Notwithstanding the above, we note that there are existing extended travel distances within the building. Based on a scaled review of the existing architectural layouts provided by Tamworth Council approximate distances are noted as follows;<br>- Up to 35m to a point of choice in lieu of 20m from basement car park<br>- Up to 30m to a point of choice in lieu of 20m from remaining storeys<br>- Up to 36m to single exit in lieu of 20m on level 3. | **Further Information Required:**<br>Travel distances will need to be reviewed in conjunction with the proposed works. The extended travel distances noted are based on the scale provided on the plans provided as such it is assumed to be accurate. Detailed scale plans along with basement, plant and machine room plans will need to be provided for assessment and review in order to verify the existing travel distances.<br>The upper storeys have doors leading to external balcony. Confirmation is required if intended for public access or maintenance use only. It is not the space largely extends travel distance with two doors only around perimeter.<br>**Performance Solution:**<br>Notwithstanding the above, pending resolution of other BCA compliance matters pertaining to egress from the building it is considered that an upgrade strategy could be developed to achieve acceptable travel distances throughout under a mixture of a DTS and performance-based strategy. |  <br>*Figure 34* |

| | | | | | |
|---|---|---|---|---|---|
| | | | In additional there where storeys that resulted in alternate travel paths converging <6m due to partitioning layout. It is noted level 2 had what appear to be a fire shield in one location to mitigate exposure.<br><br>The existing exit and directional signage does not also provide suitable coverage to indicate the location of the required exits and alternative exits this will need to be reviewed as part of any future works. | |  <br>*Figure 35* |
| 13. | | | Note scaled plans approximate only. Indicative areas of concern listed below. Basement and plant levels plans where not provided.<br>  <br>*Figure 36* | | |

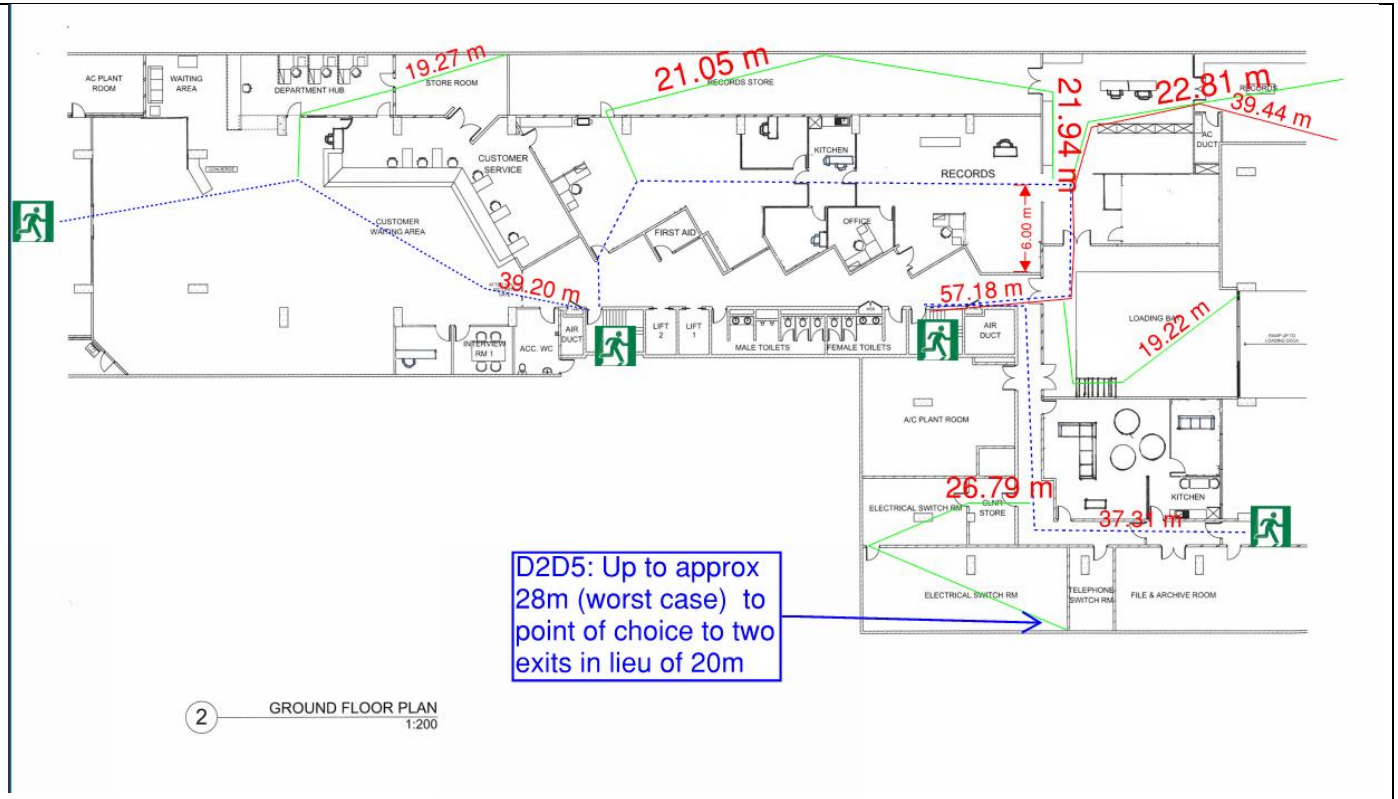

AC PLANT ROOM
WAITING AREA
DEPARTMENT HUB
19.27 m
STORE ROOM
21.05 m
RECORDS STORE
21.94 m
22.81 m
RECORDS
39.44 m
AC DUCT
KITCHEN
RECORDS
CUSTOMER SERVICE
CUSTOMER WAITING AREA
FIRST AID
OFFICE
6.00 m
39.20 m
57.18 m
LOADING BAY
19.22 m
INTERVIEW RM 1
ACC. WC
AIR DUCT
LIFT 2
LIFT 1
MALE TOILETS
FEMALE TOILETS
AIR DUCT
A/C PLANT ROOM
26.79 m
ELECTRICAL SWITCH RM
CLNR STORE
37.31 m
KITCHEN
D2D5: Up to approx 28m (worst case) to point of choice to two exits in lieu of 20m
ELECTRICAL SWITCH RM
TELEPHONE SWITCH RM
FILE & ARCHIVE ROOM
2
GROUND FLOOR PLAN
1:200

*Figure 37*

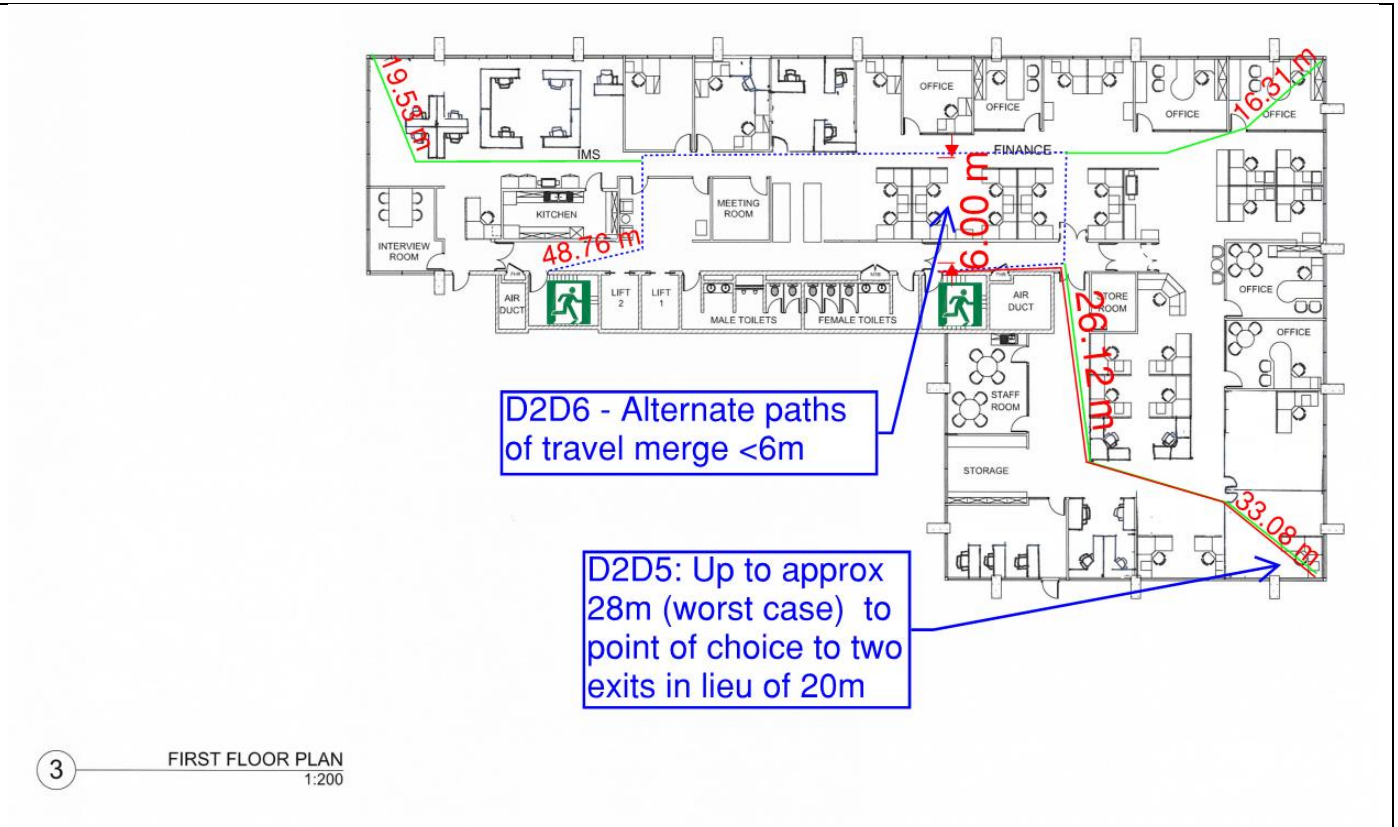

19.59m
IMS
OFFICE
OFFICE
OFFICE
16.31m
OFFICE
FINANCE
KITCHEN
MEETING ROOM
INTERVIEW ROOM
48.76 m
AIR DUCT
LIFT 2
LIFT 1
MALE TOILETS
FEMALE TOILETS
AIR DUCT
STORE ROOM
OFFICE
OFFICE
STAFF ROOM
STORAGE
D2D6 - Alternate paths of travel merge <6m
26.12m
33.08 m
D2D5: Up to approx 28m (worst case) to point of choice to two exits in lieu of 20m
3
FIRST FLOOR PLAN
1:200

*Figure 38*

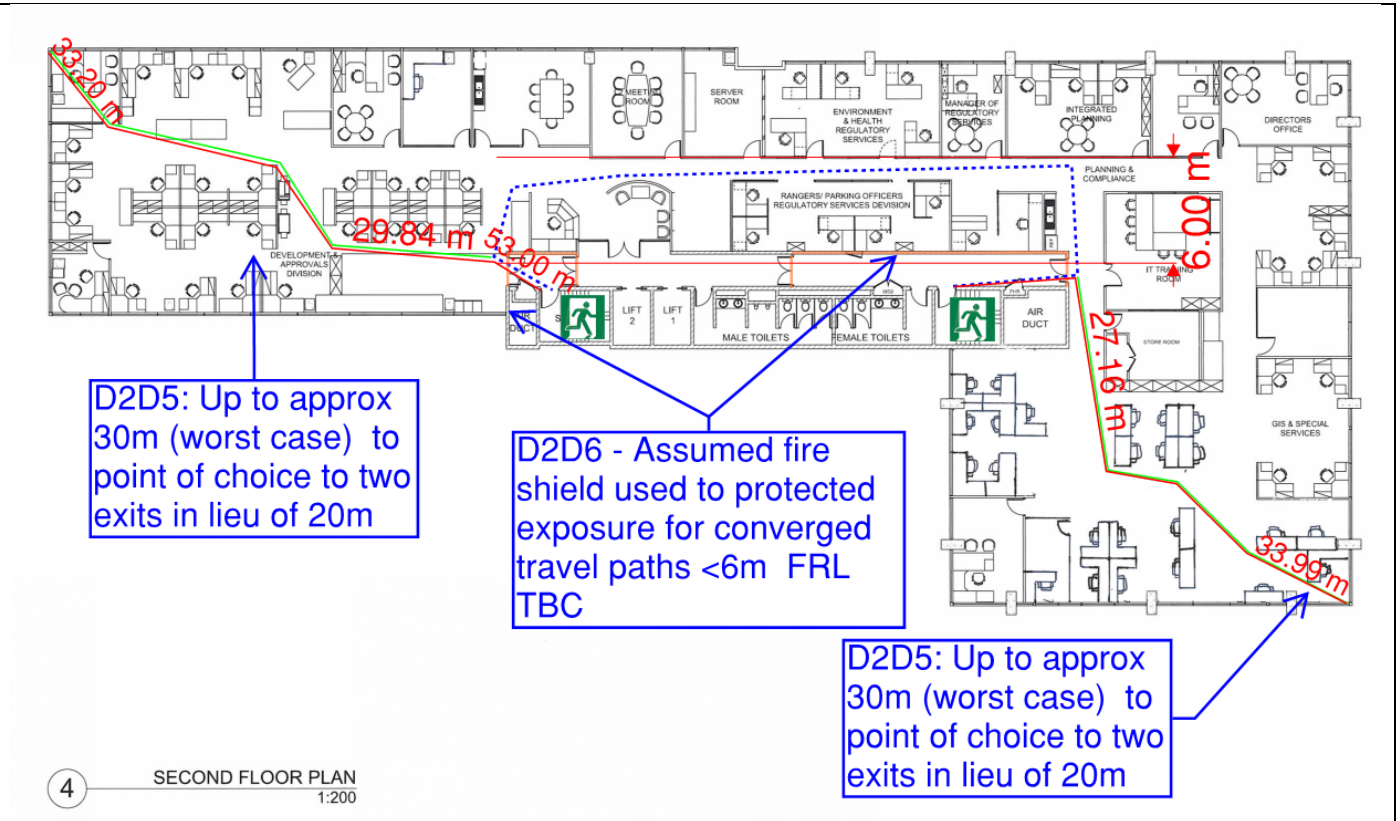

33.20 m
29.84 m
53.90 m
30.09 m
27.16 m
33.99 m
D2D5: Up to approx 30m (worst case) to point of choice to two exits in lieu of 20m
D2D6 - Assumed fire shield used to protected exposure for converged travel paths <6m FRL TBC
D2D5: Up to approx 30m (worst case) to point of choice to two exits in lieu of 20m
SERVER ROOM
ENVIRONMENT & HEALTH REGULATORY SERVICES
MANAGER OF REGULATORY SERVICES
INTEGRATED PLANNING
DIRECTORS OFFICE
PLANNING & COMPLIANCE
RANGERS/ PARKING OFFICERS REGULATORY SERVICES DEVISION
DEVELOPMENT APPROVALS DIVISION
LIFT 2
LIFT 1
MALE TOILETS
FEMALE TOILETS
AIR DUCT
IT TRAINING ROOM
STORE ROOM
GIS & SPECIAL SERVICES
4 SECOND FLOOR PLAN
1:200

*Figure 39*

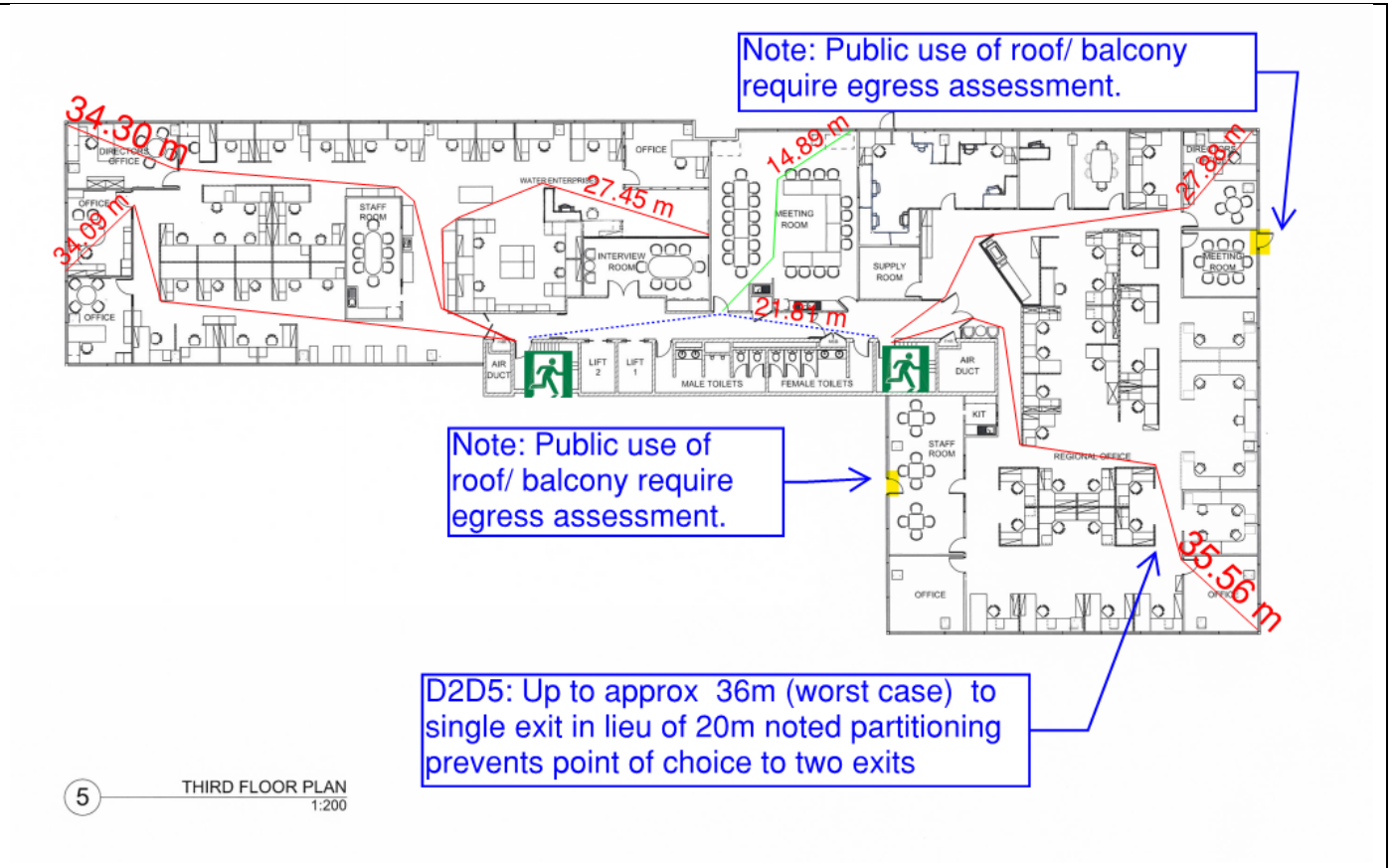
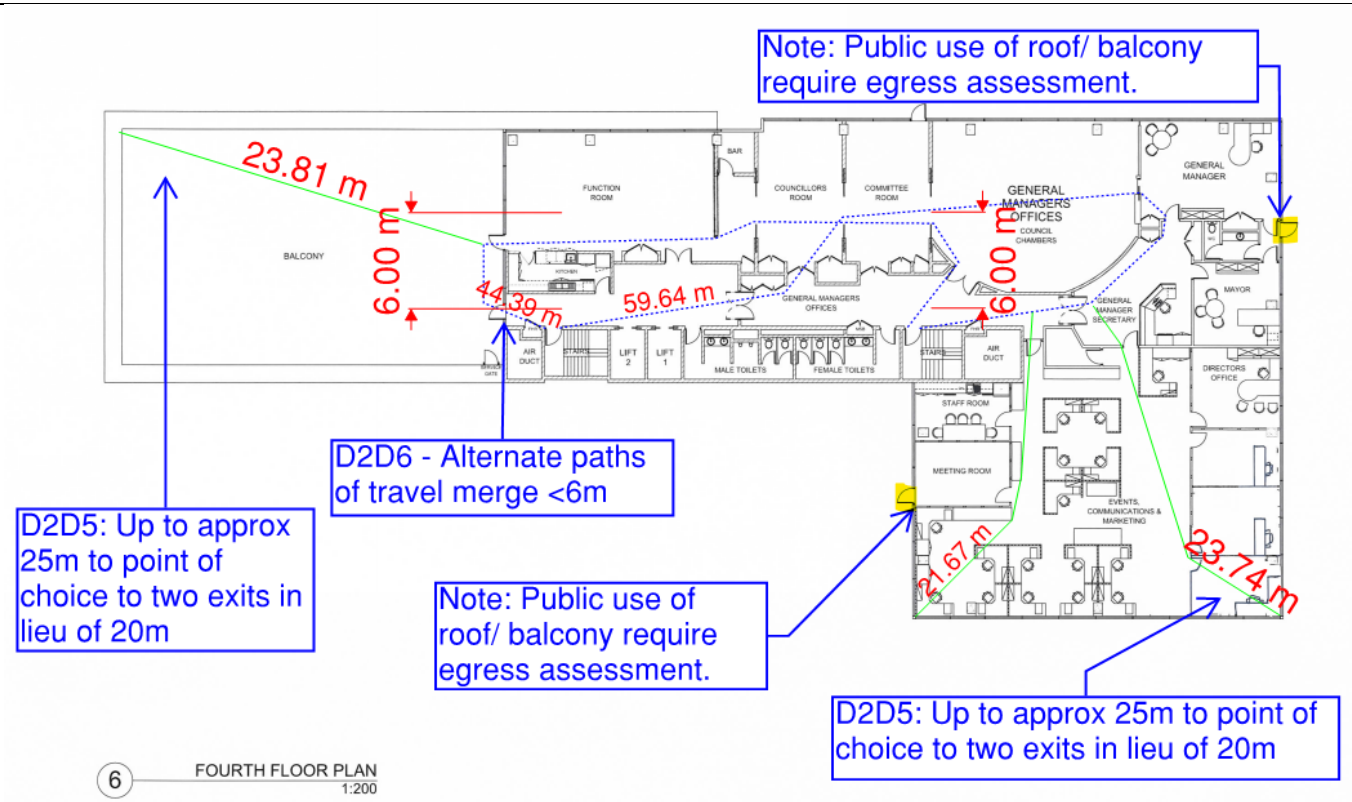
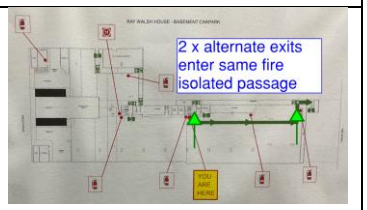

Note: Public use of roof/ balcony require egress assessment.
34.30 m
34.09 m
27.45 m
14.89 m
21.81 m
27.88 m
35.56 m
Note: Public use of roof/ balcony require egress assessment.
D2D5: Up to approx 36m (worst case) to single exit in lieu of 20m noted partitioning prevents point of choice to two exits
5
THIRD FLOOR PLAN
1:200

*Figure 40*

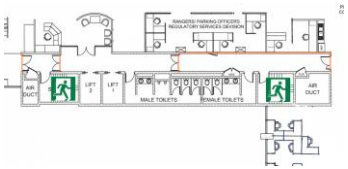
| | | | | | | |
|---|---|---|---|---|---|---|
| | | |  <br>*Figure 41* | | |
| 14. | D2D7 D2D8 D2D9 D2D10<br><br>2019 Amdt 1 ref D1.6 | Dimensions of exits and paths of travel to exits | a) In a required exit or path of travel to an exit the unobstructed height throughout must not be less than 2m excepted the unobstructed height of any doorway may be reduced to not less than 1980mm.,<br>b) The unobstructed width of all paths of travel to a required exit, width of required exits are required to be not less than 1m there were a number of | **Further Information Required Does Not Comply/Rectification works Required / Performance Solution:**<br><br>a) The carpark had numerous encroachments <2m (1850mm) by way of structural beams throughout. |  | |

| | | | | | |
|---|---|---|---|---|---|
| | | | locations within the building which do not achieve the minimum required unobstructed width.<br><br>c) Aggregate egress width requirements could not be determined at the time of the inspection, total population numbers throughout the building would need to be confirmed in order to identify the number of required exits. Notwithstanding, the following provides a high-level assessment of the available aggregate egress width.<br><br>+ GL: 4 x exits being 3 x stairs and sliding exit door - Circa 500 persons<br>+ Lv. 1 – 4: 2 x stairs 1m/stair – Circa 200 persons | b) The northern fire isolated stairs discharging into external car park on same allotment has alcove approx. 1.9m to underside of slab<br><br>c) It is noted the car park has 3 x exits, 2 of which enter the same fire isolated shaft being 1m wide. This is not expected to impact overall aggregate egress given use of space.<br><br>d) The sanitary facilities generally over all storeys had <1m (approx. 900 -800mm) between and around the nib wall.<br><br>e) Other pinch points around the buildings due to partitioning having less than 1m clear widths such as level 4 kitchen (approx. 900mm).<br><br>f) Corridor fire doors swing over / encroach entry door to fire isolated exit.<br><br>g) Aggregate egress width will be subject to further assessment as part of any potential repurposing works.<br><br>The final number of designated exits from the building will need to be derived from travel distances and aggregate egress width requirements. | *Figure 42*<br>  <br>*Figure 43*<br>  <br>*Figure 44* |

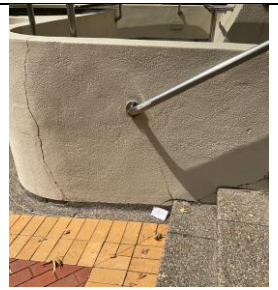
| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 45* |
| 15. | D2D12<br><br>2019 Amdt 1 ref D1.7 | Travel via fire isolated exits | 1) A doorway from a room must not open directly into a stairway, passageway or ramp that is required to be fire-isolated unless it is from—<br>a) public corridor, public lobby or the like; or<br>b) a sole-occupancy unit occupying all of a storey; or<br>c) a sanitary compartment, airlock or the like.<br><br>2) Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway—<br>a) to a road or open space; or<br>b) to a point—<br>i. in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least ⅔ of its perimeter; and<br>ii. from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or<br>a) into a covered area that;<br>i. adjoins a road or open space; and<br>ii. is open for at least ⅓ of its perimeter; and | **Further Information Required Does Not Comply/Rectification works Required / Performance Solution:**<br><br>b) The basement car park has 2 x fire isolated exits that enter into same passageway in order to reach open space which does not comply with D2D12 (2).<br>c) The peel street fire isolated exit discharges in front of GL unprotected openings glazed wall which does not comply with D2D12 (3). The glazed panel would require drenching or FRL 60 minute construction.<br>d) The peel street fire isolated exits discharges undercover with 2.7m to underside of slab and 2.05m to underside of bulkhead. Plans would be required to demonstrate open for 2/3 perimeter in accordance with D2D12(b)(ii).<br>e) The northern fire isolated stairs discharging into external car park on same allotment has alcove approx. 1.9m to underside of slab and is not open for 2/3 perimeter. |  <br>*Figure 46*<br>  <br>*Figure 47* |

| | | | | | |
|---|---|---|---|---|---|
| | | | iii. has an unobstructed clear height throughout, including the perimeter openings, of not less than 3 m; and<br>iv. provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6m.<br><br>3) Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, the following applies:<br>a) That part of the wall must have—<br><br>i. an FRL of not less than 60/60/60; and<br>ii. any openings protected internally in accordance with C4D5; and<br>b) The protection required by (a) must extend for a distance of 3 m above or below, as appropriate, the level of the path of travel, or for the height of the wall, whichever is the lesser.<br><br>4) If more than 2 access doorways, not from a sanitary compartment or the like, open to a required fire-isolated exit in the same storey—<br>a) a smoke lobby in accordance with D3D7 must be provided; or<br>b) the exit must be pressurised in accordance with AS 1668.1. | |  <br>*Figure 48*<br>  <br>*Figure 49* |

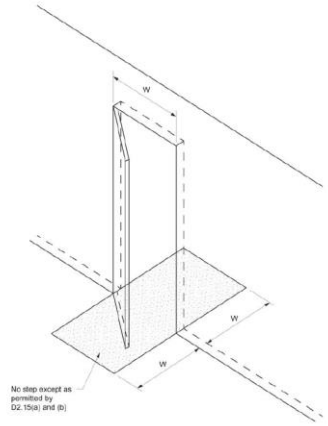
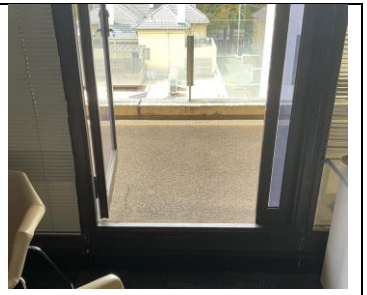
| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 50* |
| 16. | D2D15<br>2019 Amdt 1 ref<br><br>D1.10 | Discharge from exits | 1) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it.<br>2) If an exit discharges to open space that is at a different level than the public road to which it is connected, the path of travel to the road must be by—<br>a) a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed-to-Satisfy Provisions of Part D4; or<br>b) except if the exit is from a Class 9a building, a stairway complying with the Deemed-to-Satisfy Provisions of the BCA.<br>3) The discharge point of alternative exits must be located as far apart as practical | **Further Information Required Does Not Comply/ / Performance Solution:**<br><br>a) The northern fire isolated stairs discharging into external car park on same allotment has potential for vehicle to block exit. Additional signage to be reviewed.<br>b) The basement car park has 2 x alternate exits whereas they have the same fire isolated passage they discharge at the same location (peel street) which does not comply with D2D15 (4)<br>c) Both the peel street fire isolated exit and alternate exit discharge into area that is different level to public road and access to by way of stairs or kerb does not comply by way of exceeding 190mm or not constant goings or risers. |  <br>*Figure 51*<br>  <br>*Figure 52* |

| | | | | | |
|---|---|---|---|---|---|
| 17. | D2D16<br><br>2019 Amdt 1 ref<br>D1.10 | Horizontal exits | 3) In cases other than in (2), horizontal exits must not comprise more than half of the required exits from any part of a storey divided by a fire wall.<br>4) Horizontal exits must have a clear area on the side of the wall to which occupants are evacuating, to accommodate the total number of persons (calculated under D2D18) served by the horizontal exit of not less than—<br>0.5 m2 per person in any other case.<br>5) Where a fire compartment is provided with only two exits, and one of those exits is a horizontal exit, the clear area required by (4) is to be of a size that accommodates all the occupants from the fire compartment being evacuated. | **Further Information Required:**<br>It was noted during the inspection that some storeys had fire rated doors and masonry wall prior to reaching the fire isolated exits.<br>Previous approval history or any existing fire engineering is not known whether the intent was to call this a horizontal exit. There where compliance issues associated with this and would need to be reviewed for suitability if intended to be relied on for refurbishment works.<br>There was area on level 3 which was had fire doors either side of passageway however a glass panel breaking fire barrier. |  <br>*Figure 53*<br>  <br>*Figure 54* |
| 18. | D3D8<br><br>2019 Amdt 1 ref<br>D2.7 | EDB / Comms cupboards | EDB/Comms cupboards are required to be smoke separated from the remainder of the building as required under D2.7 of the BCA. This includes the following.<br>+ Provision of a non-combustible lining to the back of the enclosing door (gal sheet)<br>+ Smoke seals to the door and door jamb<br>+ Enclosing construction around the cupboard of non-combustible construction<br>+ Sealing of all penetrations within the bounding construction with a non- | **Further Information Required:**<br>Access to all EDB/Comms cupboards etc. was not obtained during our inspection.<br>In this regard, the relevant consultant (i.e. Electrician / Passive Fire Services Contractor) is to inspect all existing EDB/Comms cupboards and verify whether compliance with this clause is achieved.<br>**Does Not Comply/Rectification works Required**<br><br>EDB/Comms cupboards/enclosures inspected varied in compliance some with metal flash plate others only timber face doors. Multiple areas |  <br>*Figure 55* |

| | | | | | |
|---|---|---|---|---|---|
| | | | combustible product complying with AS 1530.1 | required penetrations to be upgrades as part of the works.<br>Additionally there was locked electricity security room outside exist towards Kabel avenue which has ventilation louvers above door. The space was not accessible however needs to be reviewed against BCA D3D8.<br>Complete smoke separated from the remainder of the building is required in conjunction with the proposed works and would dependant on the extent of refurbishment works. Where located within the zone of works it would be recommended that the cupboards are upgraded.<br>Upgrade works would include sealing all perimeter gaps and penetrations with a non-combustible material, and lining of doors with a metal backing where existing doors not found to be fire rated doors. |  <br>*Figure 56*<br>  <br>*Figure 57* |
| 19. | D3D9<br><br>2019 Amdt 1 ref D2.8 | Enclosure of space under stairs | 1) Fire-isolated stairways and ramps — If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space.<br>2) Non fire-isolated stairways and ramps — The space below a required non fire-isolated stairway (including an external stairway) or non-fire-isolated ramp must not be enclosed to form a cupboard or other enclosed space unless— | **Further Information Required/ Does Not Comply/Rectification works Required**<br><br>Enclosures are not permitted under fire isolated stairs. A locked cupboard was identified within the fire isolated passageway from car park towards peel street exit.<br>Confirmation is required what this is used fir and is this can be blocked up as part of refurbishment works. |  <br>*Figure 58* |

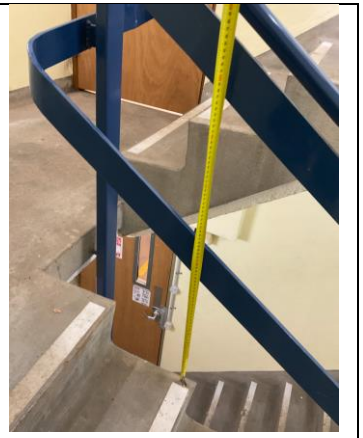
| | | | | | |
|---|---|---|---|---|---|
| | | | a) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and<br>b) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door. | |  <br>*Figure 59* |
| 20. | D3D14, D3D15, D3D22, D4D9 & AS 1428.1-2009<br><br>2019 Amdt 1 ref<br>D2.13, D2.15, D2.17 & AS 1428.1-2009 | General circulation stairways / fire isolated and handrails | The following is noted having regards to the various stairways within and around the building.<br>+ The Peel street and Kabel street external stairs are deemed to be used for general circulations. The fire isolated stairs within the building based on characteristics are assumed to be used for egress only.<br>+ Stairs generally where not consistent (e/g more than 5mm between adjacent goings) and had goings that projected beyond the face of the riser to D3D14.<br>+ The Peel Street stairs appeared to discharge directly to ramped surface in lieu of landing required by BCA D3D15<br>+ Handrails throughout internal fire isolated and external stairs did not comply with D3D22 or AS1428.1-2009 for height of handrail, and termination did not comply. A handrail was not provided on both sides of the stair flights in numerous locations.<br>+ Peel street external stairs had a barrier preventing continuous use.<br>+ The loading dock stairs did not comply for gaps between risers. Handrail did not comply. | **Note:**<br>Requirement for upgrading of each respective stairway will be determined as part of future design development stage of the proposed works depending on extent of work and proposed building function.<br>**Does Not Comply/Rectification works Required**<br>Where stairways are to remain for general circulation purposes in addition for egress purposes it would be recommended that they are upgraded to comply with the requirements of AS1428.1. |  <br>*Figure 60*<br>  <br>*Figure 61* |

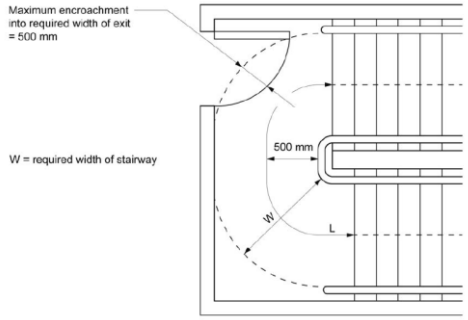
| | | | | | |
|---|---|---|---|---|---|
| | | | + Compliant Colour contrasting non-slip nosing's were not provided.<br>+ No tactile ground surface indicators (TGSI) installed at the top, bottom and mid landing of flights as per BCA cl. D3D9 and Section 9 of AS 1428.1-2009.<br>+ Slip resistance as required by Table D3D15 would need to be confirmed by onsite slip testing. | |  <br>*Figure 62*<br>  <br>*Figure 63*<br>  <br>*Figure 64* |

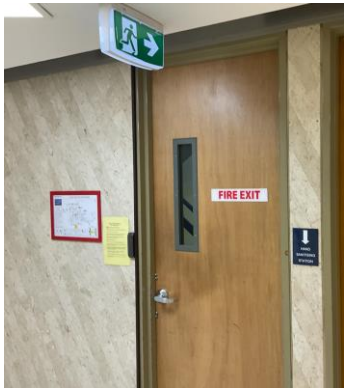
| | | | | | |
|---|---|---|---|---|---|
| 21. | D3D16<br>2019 Amdt 1 ref<br>D2.15 | Door threshold | The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless-<br>c) in a building required to be accessible by Part D4, the doorway—<br>i. opens to a road or open space; and<br>ii. is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or<br>d) in other cases—<br>i. the doorway opens to a road or open space, external stair landing or external balcony; and<br>ii. the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens. | **Does Not Comply Further Information Required:**<br><br>Areas identified for review or did not comply included:<br>- Doors providing access to perimeter balcony. Confirmation is required if intended for public use or roof maintenance use only.<br>- The level 4 communal external area had non compliant step (245mm) at both entry doors to get to external area which does not comply with D3D16. Indications is this is intended for public use requiring access.<br>- Basement car park had door swinging over landing step.<br><br>Figure D2.15(1) Illustration of where a step is not allowed in a doorway<br>  <br>*Figure 65*<br><br>Location of thresholds to be reviewed in conjunction with proposed works to determine any upgrade works that may be required from an Access perspective. Refer comments later in this report accordingly. |  <br>*Figure 66*<br>  <br>*Figure 67*<br>  |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | *Figure 68*<br>  <br>*Figure 69* |
| 22. | D3D17, D3D18, D3D19, D3D20<br><br>2019 Amdt 1 ref D2.16 | Balustrades throughout | There were a number of different balustrade types noted throughout the Ray Walsh building including masonry solid wall and varying metal types.<br>+ Balustrades were less than 1m in height in numerous areas. This included exit locations, ramps, fire stairs and external glass balcony areas.<br>+ Openings within the balustrades were more than the maximum permitted 125mm. This included the level 4 upper external communal area, fire stairs gap between nosing line.<br>+ The existing balustrades resistance to human impact requirements under AS1170 could not be confirmed. The performance of the balustrades would need to be verified by a structural engineer.<br>+ Balustrades provided to areas located greater than 4m to the | **Does Not Comply/Rectification works Required**<br>Depending on the extent of refurbishment works upgrade works to the existing balustrades may be required this will need to be workshopped as part of future design stages. Where works alter and/or are existing balustrades are located adjacent to or relied on for the new works upgrade works would be recommended.<br>**Note:**<br>Areas outside of the area of work should be reviewed as part of ongoing works within the building and by design team from a risk perspective. |  <br>*Figure 70* |

| | | | | | |
|---|---|---|---|---|---|
| | | | surface below were climbable and had horizontal elements located between 150-760 FFL | |  <br>*Figure 71*<br>  <br>*Figure 72* |

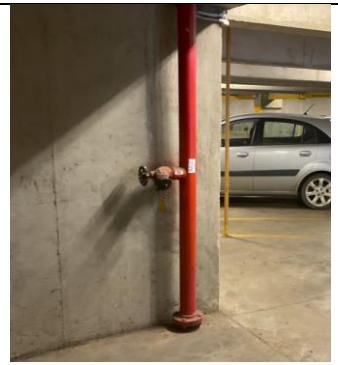
| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 73* |
| 23. | D3D24, D3D25 & D3D26<br><br>2019 Amdt 1 ref<br>D2.19, D2.20 & D2.21 | Doors and door hardware throughout | a) A number of the required egress doors and doors located in a path of travel were noted as having door hardware which would not be readily openable for a person seeking egress including various locking mechanisms including doorknobs, snibs locks, drop down bolts and the like.<br>b) Door hardware included various locking mechanisms with break glass alarms with associated electric strikes, given that all hardware throughout was not tested it was not clear whether the locking mechanisms would be openable for a person seeking egress at all times. These doors would need to trip in the event of a fire without the need to activate the break glass to achieve compliance.<br>c) The failsafe device to the power operated entry door to the building will need to be confirmed no system testing was undertaken at the time of the inspection as such compliance could not be verified. | **Compliance Readily Achievable**<br>a) Door hardware is required to be reviewed as part of any proposed works. Where located in a path of travel and/or required for egress purposes from the new part, door hardware will need to be rectified so that egress is readily available at all times for a person seeking egress<br>**Further Information Required:**<br>b) Power operated sliding doors is to be confirmed that it will auto open upon activation of smoke detection or power failure.<br>c) The security drop bolt on ground level is to be reviewed noting required egress path to reach alternate exit.<br>d) It is not clear whether the electric strike trips in the event of a fire, onsite testing would be required to confirm the operation of the fire trips in the event of a fire. To achieve compliance the trips will need to trip in the event of a fire. |  <br>*Figure 74*<br>  |

| | | | | | |
|---|---|---|---|---|---|
| | | | d) Fire isolated exit doors encroachment onto landing to be reviewed for suitability. | e) It is noted there is a vault installed on the 4th floor. Confirmation is required if space is to be repurposed in refurbishment.<br>**Does Not Comply/Rectification works Required**<br>f) Corridor fire door encroached over entry door to fire isolated exit.<br>g) The Kabel Street GL exit door swings against the direction of egress which does not comply being the final exit door.<br>h) The doors providing access to the fire isolated exits encroached >500mm onto stair width on door reviewed.<br>  | *Figure 75*<br>  <br>*Figure 76*<br>  <br>*Figure 77*<br>  <br>*Figure 78* |

| | | | | | |
|---|---|---|---|---|---|
| 24. | D3D28<br><br>2019 Amdt 1 ref D2.23 | Signs on Doors | A sign referred to in (1) must be in capital letters not less than 20 mm high in a colour contrasting with the background<br>and state the following:<br>For an automatic door held open by an automatic hold-open device—<br>**FIRE SAFETY DOOR — DO NOT OBSTRUCT**<br><br>For a self-closing door—<br>**FIRE SAFETY DOOR**<br>**DO NOT OBSTRUCT**<br>**DO NOT KEEP OPEN**<br>For a door discharging from a fire-isolated exit—<br>**FIRE SAFETY DOOR — DO NOT OBSTRUCT** | **Does Not Comply/Compliance Readily Achievable**<br>Fire doors throughout would need signage to be reviewed in conjunction with refurbishment works.<br>The fire doors within passageway had door tags only no signage, it should be confirmed if intended for re use in refurbishment works. |  <br>*Figure 79*<br>  <br>*Figure 80* |
| 25. | D3D29<br><br>2019 Amdt 1 ref D2.24 | Protection of openable windows. | 3) A barrier with a height not less than 865 mm above the floor is required to an openable window—<br>a) in addition to window protection, when a child resistant release mechanism is required by (2)(b)(iii); and<br>b) where the floor below the window is 4 m or more above the surface beneath if the window is not covered by (1).<br>4) A barrier covered by (3) except for (5) must not—<br>a) permit a 125 mm sphere to pass through it; and | **Does Not Comply/Rectification works Required**<br>A number of openable windows where identified throughout which require window protection or barrier in accordance with the requirements of this Clause. |  <br>*Figure 81* |

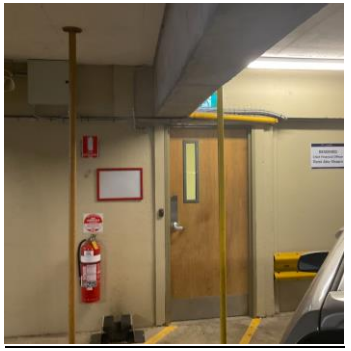
| | | | | | |
|---|---|---|---|---|---|
| | | | b) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing. | |  <br>*Figure 82*<br>  <br>*Figure 83* |

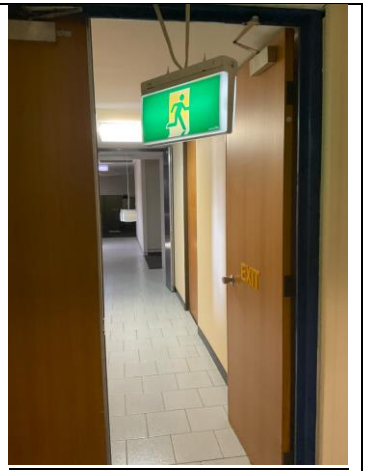
| | | | | | |
|---|---|---|---|---|---|
| 26. | E1D2<br><br>2019 Amdt 1 ref E1.3 | Fire Hydrant System | The Ray Walsh building is noted as being serviced by primarily internal hydrant outlets. A number of compliance issues matters requiring further investigation were noted as follows;<br>a) The hydrant system is Ordinance 70 which is no longer supported by FRNSW.<br>b) Internal fire hydrants where not located within fire isolated stairs but directly adjacent in cupboard. Some of these locations where fire separated from remainder of the building however not reflective in all locations.<br>c) The fire hydrant booster assembly serving the building was locked at the time of inspection and is located on a flight of steps adjacent to the Peel street entry <10m (7.5m) from building without fire shield. The following could not be confirmed;<br>+ Statutory signage is required to be upgraded including Block plans,<br>+ Fire Hydrant Booster signage,<br>+ Test and Boost pressure.<br>+ The booster does not appear to be provided with a non-return valve noting that the booster appears to only be provided with an isolation valve<br>+ Direction of flow of the water is to be shown on the booster assembly<br>+ Angle of Outlets appear to be more than 35 deg<br>+ Could not be determined if the lock provided to the tamper chain was provided with a 003<br>d) The Hydraulic Engineer is to confirm the performance of the existing hydrant | **Does Not Comply/Rectification works Required**<br>a) FH booster and hydrant system is to be upgraded to the degree necessary to comply with AS 2419.1 - 2021 in heavy including required statutory signage<br>b) The booster shall be located in position readily accessible and further than 10m from non sprinkler protected building.<br>**Does Not Comply / Further Information Required/ Performance Solution:**<br>b) Location of internal fire hydrants located outside fire isolated stairs <4m from the exit does not comply.<br>c) Hydraulic engineer will need to verify the performance of the system in terms of pressure and flows, compliant performance will need to be achieved where medium to heavy refurbishment works are proposed.<br>**Does Not Comply/Rectification works Required**<br>c) Pipework supports to be reviewed as part of any proposed re-purposing works particularly for internal pipework and upgraded in areas where works are proposed.<br>**Does Not Comply/Rectification works Required**<br>d) Coverage from existing FH outlets will need to be confirmed where shortfalls are identified then additional outlets may need to be introduced to provide sufficient coverage.<br>**Does Not Comply/Rectification works Required**<br>e) Statutory signage throughout should be upgraded as part of the proposed re-purposing works and ensuring all maintenance tags are provided. |  <br>*Figure 84*<br>  <br>*Figure 85*<br>  <br>*Figure 86* |

| | | | | | |
|---|---|---|---|---|---|
| | | | system from a pressure and flow standpoint.<br>e) Existing pipework supports are not fire rated and are located in a non-sprinkler protected building which would necessitate fire rated supports<br>f) FH coverage throughout will need to be confirmed based on the location of the existing outlets to identify shortfalls within the existing building. Outlets in car park were noted to be located more than 4m from exits provided in paths of travel within the building rather than 4m from exits.<br>Based on a review of the locations on site It appears as though there will be coverage shortfalls based on the existing conditions within the building and noting internal hydrants only provide coverage from a 30m hose with a 10m spray.<br>g) FH outlets were located within internal cupboards and were not provided with compliant signage i.e. "Fire Hydrant" as per AS 2419 and AS 2441 maintenance tags would also need to be provided to all existing outlets. | |  <br>*Figure 87* |
| 27. | E1D3<br><br>2019 Amdt 1 ref E1.4 | Fire Hose Reels | The following comments are made with respect to the existing fire hose reels.<br>+ No Fire Hose reels were installed within the basement car park.<br>+ A number of hose reels were located in corridors that had fire doors enclosing the space. Fire hose reels are not permitted to pass through fire doors.<br>+ Locations and clearances of fixtures to be reviewed by hydraulic consultant.<br>+ Signage to be upgrade to colour contrast in accordance with AS2441 - 2005.<br>+ Items other than for fire services installed within FHR cupboard. | **Does Not Comply/Rectification works Required**<br>FHR coverage within basement car park area is required.<br><br>**Does Not Comply / Further Information Required/ Performance Solution:**<br>FHR on some levels had fire doors enclosing the space they are located within. This may be to protect FRNSW connecting to Fire hydrant located in the same cupboard noting they are not within fire isolated exit (see table). Fire hose reels are not permitted to pass through doors having a fire rating. Confirmation is required if corridor fire doors are intended to be kept as part of the refurbishment works. |  <br>*Figure 88* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | It is recommended that fire hose reel coverage plans be provided to demonstrate compliance throughout the building any areas subject to proposed re-purposing works. Where existing outlets are located more than 4m from existing exits there may be scope under a Fire Engineered Solution to rationalise the existing locations consultation with a fire safety engineer will be required in this regard.<br>This should also verify that compliant pressures and flows are achieved. Furthermore, it is recommended that signage to fire hose reel cupboards should be upgraded to comply with AS 2441-2005 and AS 2419.4-2021.<br>**Compliance Readily Achievable**<br>Fire hose reel signage and outlets to be modified to ensure required clearances are achieved in accordance with AS 2441-2005 and that all areas are provided with compliant coverage throughout. |  <br>*Figure 89* |
| 28. | E1D5 & E1D9<br><br>2019 Amdt 1 ref E1.5 | Sprinklers | Sprinklers are required where:<br>a) If any part of the building has an effective height more than 25m; and<br>b) Within Class 7a carparks, sprinklers are required where more than 40 vehicles are accommodated. | **Does Not Comply / Further Information Required/**<br>Confirmation by way of scaled elevations are required to confirm if the building effective heights exceeds 25m requiring sprinkler system. (See C2D3 also).<br><br>The basement car park was noted to have in excess of 40 vehicles (approx. 49) and a sprinkler system was not installed. This is required to be reviewed in conjunction with refurbishment works where more than 40 cars proposed. |  <br>*Figure 90* |
| 29. | E2D3, E2D4, E2D9(TBC)<br><br>2019 Amdt 1 ref E2.2 | Fire detection and alarm system | a) The building having a RIS of more than three (3) is required to have a smoke detection throughout. Detection coverage shortfalls throughout including car park.<br>b) Fire isolated stairway serving any storey above effective height of 25m OR fire isolated passageway with a length of travel more than 60m requires automatic air pressurisation system for the fire isolated exits in | **Does Not Comply/Rectification works Required**<br>a) There are numerous areas with coverage shortfalls including rooms not provided with detection to be reviewed by dry fire consultant.<br>b) As part of any proposed upgrade works to the detection and alarm system it would be recommended that the external strobe be provided |  |

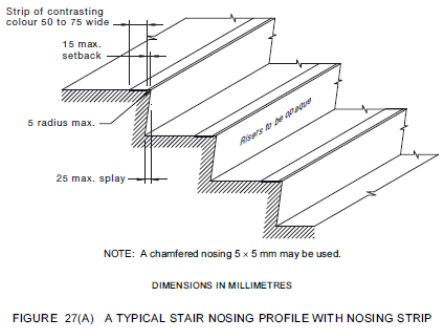
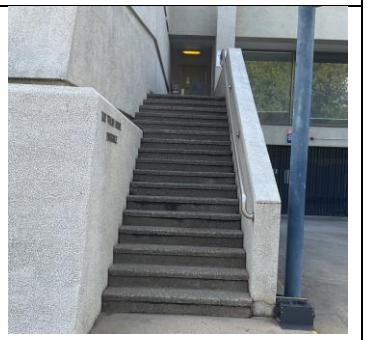
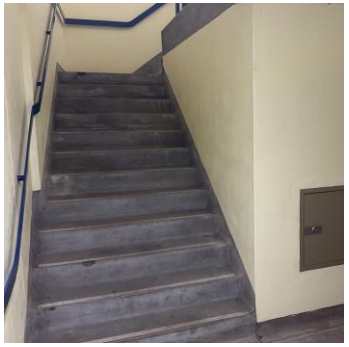
| | | | | | |
|---|---|---|---|---|---|
| | | | accordance with AS1668.1. The automatic air pressurisation system for fire isolated exit applies to the entire exit.<br>c) The FIP is not provided with a strobe light to the external façade of the building indicating the location of the panel. Rather is provided with an external bell<br>d) Auto shutdown to the mechanical systems within the building would need to be confirmed no system testing was able to be undertaken at the time of the inspection.<br>e) Annual fire safety statement and zone block plans and hydrant block plan not on display at the time of the inspection<br>f) The provisions of NSW variations of the BCA apply to Class 9b parts of level 4 however it is noted that the whole storey is less than 2000m2 fire compartment from scaled plans. | **Further Information Required**<br>c) Scaled elevations required to confirm is required the building effective height does not exceed 25m.<br>d) Scaled floor plans required to confirm if required if car park fire isolated passageway exceeds 60m total length.<br>e) The provision of auto shutdown to the air handling equipment will need to be confirmed through onsite testing auto shutdown of the air-handling would be required where not provided<br>f) The zone block plan is to be updated as part of any future works and is to be updated to reflect the requirements of AS 1670. The annual fire safety statement is to be put on display also the Fire Hydrant block plan is recommended to be displayed at the FIP | *Figure 91*<br>  <br>*Figure 92*<br>  <br>*Figure 93*<br>  <br>*Figure 94* |

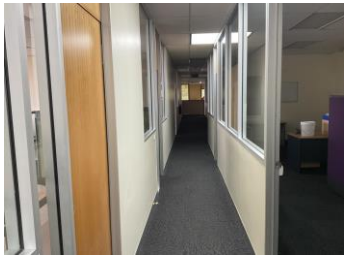
| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 95* |
| 30. | E4D2, E4D4, E4D5 & E4D8.<br><br>2019 Amdt 1 ref<br>E4.2, E4.4, E4.5 & E4.6 | Emergency lighting and exit/directional signage – Throughout the building | Throughout the existing building there was emergency lighting coverage and exit and directional signage shortfalls which would need to be upgraded this is to ensure that all of the available exits are identified in line with the required exits to achieve the required travel distances.<br>Exit signage would also need to be introduced to the internal courtyards to ensure that the egress routes are readily apparent for the occupants | **Further Information Required**<br>The provision of emergency lighting and emergency exit and directional signage will be subject to further review as part of any proposed refurbishment works to suit new egress strategy. |  <br>*Figure 96* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 97* |
| 31. | F4D3, F4D4<br><br>2019 Amdt 1 ref<br>F2.3, F2.4 & AS 1428.1-2009 | Sanitary facilities | The building is required to be afforded with the number of sanitary facilities specified in Table F2.3 of the BCA (part of Table shown below).<br>In order to determine the number of required facilities, an anticipated population would need to be nominated. | **Does Not Comply/Rectification works Required**<br>Where future upgrade/refurbishment works and/or re-purposing is proposed, a detailed assessment of sanitary facilities will be required to be undertaken. See F2.4 – DDA for Accessibility issues e.g. only 1 x accessible facility on ground, no ambulant facilities.<br><br>In addition to the above, consideration would need to be given to upgrading the existing facilities (including a unisex accessible sanitary facility and provision of ambulant facilities) on each storey.<br>The full extent of upgrade works required will need to be confirmed as part of the design development stage<br><br>**Further Information Required**<br>The use of level 4 Class 9b space to be confirmed for provision of sanitary facilities. |  <br>*Figure 98*<br>  <br>*Figure 99* |

<table>
<tr><td></td><td></td><td></td><td></td><td>Confirmation required for max expected population for refurbishment works so adequate provision can be confirmed.</td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="3">
<table>
<tr><td colspan="6">Facilities for Staff</td></tr>
<tr><td rowspan="2">User Group</td><td colspan="2">Closet Pans</td><td colspan="2">Urinals</td><td colspan="2">Washbasins</td></tr>
<tr><td>Design Occupancy</td><td>Number</td><td>Design Occupancy</td><td>Number</td><td>Design Occupancy</td><td>Number</td></tr>
<tr><td rowspan="3">Male Employees</td><td rowspan="2">1-20</td><td rowspan="2">1</td><td>1-10</td><td>0</td><td rowspan="2">1-30</td><td rowspan="2">1</td></tr>
<tr><td>11-25</td><td>1</td></tr>
<tr><td>>20</td><td>Add 1 per 20</td><td>26-50</td><td>2</td><td rowspan="2">>30</td><td rowspan="2">Add 1 per 30</td></tr>
<tr><td></td><td></td><td>>50</td><td>Add 1 per 50</td></tr>
<tr><td rowspan="2">Female Employees</td><td>1-15</td><td>1</td><td colspan="2" rowspan="2"></td><td>1-30</td><td>1</td></tr>
<tr><td>> 15</td><td>Add 1 per 15</td><td>> 30</td><td>Add 1 per 30</td></tr>
<tr><td colspan="6">Class 9b – public halls, function rooms or the like</td></tr>
<tr><td rowspan="2">User Group</td><td colspan="2">Closet Pans</td><td colspan="2">Urinals</td><td colspan="2">Washbasins</td></tr>
<tr><td>Design Occupancy</td><td>Number</td><td>Design Occupancy</td><td>Number</td><td>Design Occupancy</td><td>Number</td></tr>
<tr><td rowspan="3">Male Patrons</td><td rowspan="2">1-100</td><td rowspan="2">1</td><td>1-50</td><td>1</td><td>1-50</td><td>1</td></tr>
<tr><td>51 -100</td><td>2</td><td>51 - 200</td><td>2</td></tr>
<tr><td>> 100</td><td>Add 1 per 200</td><td>101 - 150</td><td>3</td><td rowspan="2">>200</td><td rowspan="2">Add 1 per 200</td></tr>
<tr><td></td><td></td><td>151-200</td><td>2</td></tr>
<tr><td rowspan="3">Female Patrons</td><td>1-25</td><td>1</td><td colspan="2" rowspan="3"></td><td>1-50</td><td>1</td></tr>
<tr><td>26-50</td><td>2</td><td>51-150</td><td>2</td></tr>
<tr><td>51-100</td><td>3</td><td>>150</td><td>Add 1 per 200</td></tr>
</table>
</td></tr>
<tr><td>32.</td><td>Section J</td><td>Throughout</td><td>Noting the age of the building and current design of the building it does not appear as though it would achieve compliance with the requirements of Section J of the BCA.<br>Whilst Section J does not apply retrospectively, Section J applies to any new</td><td>Compliance Readily Achievable<br>Where the existing building fabric is proposed to be altered, the new portion <u>only</u> of the building fabric would need to be upgraded to comply with Section J.</td><td></td></tr>
</table>

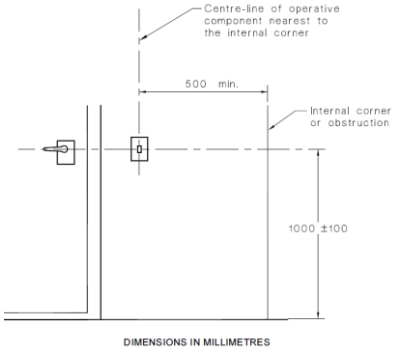
| | | | | | |
|---|---|---|---|---|---|
| | | | works including works to the existing building fabric and/or works to building services. | New services which are incorporated as part of any proposed works would need to be designed to comply with the relevant provisions of Section J. | |
| **DDA REVIEW** | | | | | |
| 33. | D4D2<br><br>2019 Amdt 1 ref D3.1 | General building Access requirements | The building is Class 7a, Class 5 and Class 9b.<br><br>Access is required to all areas normally used by the occupants for Class 5 and Class 9b parts.<br><br>The Class 7a car park requires access for to and within any level containing accessible car parking spaces. | **Does Not Comply/Rectification works Required**<br>Given the age of the building there is a number of items that do noy comply with the requirements of D4D2 (refer below parts).<br><br>The level 4 9b and balcony<br><br>**Further Information Required/ Performance Solution:**<br>Where it is not possible to rectify an area within affected part there is facility to address by way of Performance Solution. The extent of scope will be further understood as design progresses. | |
| 34. | D4D3<br><br>2019 Amdt 1 ref D3.2 | Access to buildings | An accessway must be provided to a building required to be accessible—<br>from the main points of a pedestrian entry at the allotment boundary; and<br>from any required accessible carparking space on the allotment.<br><br>2) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and—<br>through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and in a building with a total floor area more than 500 m2, a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance, | **Does Not Comply/Rectification works Required**<br>**Further Information Required/ Performance Solution:**<br><br>Access was provided by way of ramp from the Peel street entry point however this is no accessible entry point from Kabel avenue being further than 50m from accessible entry point.<br><br>The ramp has aspects that did not comply with AS1428.1 being 90 degree turn space being less than required. Overall gradient to be confirmed.<br><br>There was no accessible car parking provided (See D4D6) however if this was to be provided within existing basement car park there is not an accessway to reach pedestrian lifts.<br><br>Further review will be required once scope of refurbishment is defined.<br>**Compliance Readily Achievable** |  <br>*Figure 100*<br>  <br>*Figure 101* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Whilst disabled access is required to be provided under the BCA to the areas identified, the minimum extent of upgrade works with respect of verticle transport will be dependant on the affected part assessment this will be subject to further review in future design stages. It is noted however that the lift will be located on the afected part. Indications are that the overal dimenison exceed 1400mm wide x 1600mm deep which can comply with E3D8 |  <br>*Figure 102* |
| 35. | D3D14, D3D22 & D4D4<br><br>2019 Amdt 1 ref<br>D2.13, D2.17, D3.3 & AS 1428.1-2009 | General circulation stairways | During the inspection there were various stairways including the nominated egress stairways were being utilised for general circulation purposes, and as such are required to comply with AS 1428.1-2009. General deficiencies throughout included;<br>+ Lack of compliant colour contrasting nosing's to the stair treads and or not provided in accordance with clause 11 of AS 1428.1<br>  <br><br>NOTE: A chamfered nosing 5 x 5 mm may be used.<br>DIMENSIONS IN MILLIMETRES<br>FIGURE 27(A) A TYPICAL STAIR NOSING PROFILE WITH NOSING STRIP<br>*Figure 103*<br>+ No tactile ground surface indicators (TGSI) installed at a number of the stairways throughout at the top, bottom and mid landing of flights as per BCA cl. D3.8 and Section 9 of AS 1428.1-2009. | **Compliance Readily Achievable**<br>Requirement for upgrading of each respective stairway will be determined according to the proposed re-purposing works in conjunction with the affected part assessment.<br>Where egress stairways are to be utilised for general circulation purposes in addition for egress purposes they are recomendded to be upgraded to comply with the requirements of AS1428.1 based on the conditions at the time of the inspection these works would be considred to be minor in nature including provision of tactile indicators, nosing strips and a finish which will provide a suitable non-slip finish.<br>Noting the number of stairways within the building are deemed to be fire isolated and for egress only this shall be confirmed. Notwithstanding upgradings items such as colour constradst nosings can be readily achiiveed at minimal cost. |  <br>*Figure 104*<br>  <br>*Figure 105* |

| | | | | | |
|---|---|---|---|---|---|
| | | | + Slip rating of the existing finishes to the stairways including landings is not known based on a visual inspection further onsite testing would be required accordingly | |  *Figure 106* |
| 36. | D4D2 & D4D3<br><br>2019 Amdt 1 ref D3.1 & D3.2 | Continuous accessible path of travel including internal ramps. | According to the building use an accessible path of travel is required to be provided as per the following<br>To and within all areas normally used by the occupants<br>a) Whilst the existing lift installations generally provided access to all storeys, the following was noted having regards to the general condition of the accessible path of travel throughout each floor.<br>+ Lighting level need to achieve a minimum 150lx or minimum lighting levels under AS 1680 this could not be verified during the inspection<br>+ The existing corridors were of a size which would allow sufficient space for a 180 deg turn (1540x2070mm) and passing spaces (1800x2000mm) however | **Compliance Readily Achievable**<br>e) The existing spatial arrangements to corridors and the ability to introduce complaint floor finishes, lighting and furnitre means that compliance is readily achievable having reagrds to the new works. Upgrading of existing thresholds and handles will also be required where located in a path of travel to new works.<br>f) Glazing decals could readily be upgraded to comply with AS1428.1 noting numerous glazed panes could be mistaken as openings.<br><br>The minimum extent of required upgrade works required will be based on the affect part requirements.<br>**Does Not Comply/Rectification works Required**<br>g) The provision of compliant access to the level 4 external balcony was not achieved. |  *Figure 107*<br>  |

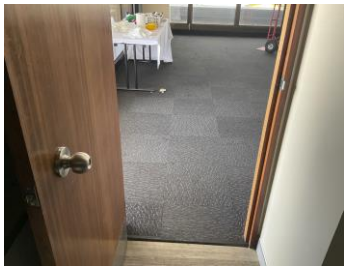
| | | | | | |
|---|---|---|---|---|---|
| | | | there were areas within staff areas and classrooms which would not provide sufficient space for wheelchair access as required under AS 1428.1.<br>+ The existing slip rating of floor surfaces throughout could not be verified during the inspection. Based on the visual inspection of the various surfaces to the existing stairways it is likely that the finishes will not achieve a compliant slip rating.<br>+ Threshold steps were noted in a number of locations throughout the building including doors leading to external spaces which did not comply<br>+ Existing door hardware to sliding doors are not of a compliant type is. D handle type.<br>Typically there were no glass decals provided to various glazed assemblies located along the accessible path of travel. A glass decal minimum of 30% luminance contrast 75mm wide located between 900-1000mm is required to be provided to all frameless glazed sidelights doors windows which can be mistaken for a doorway opening. | h) Muiple doors widths and paths do not comply with AS1428.1 – ref later in the report.<br>i) Visual indicators (glass decals) will need to be upgraded throughout. Where located on the affected part upgrade works will be required as part of any proposed works within the building.<br>**Further Information Required/**<br>Confirmation is required if the external balcony areas are intended to be public access or restricted to maintenance only for roof. It is noted where public access is required there is no DDA access, travel distance, balustrades do not comply and hydrant coverage will need to be reviewed. | *Figure 108*<br>  <br>*Figure 109*<br>  <br>*Figure 110*<br>  <br><br>*Figure 111* |

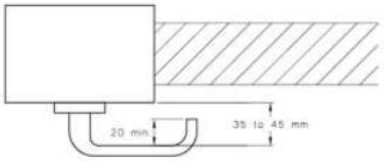
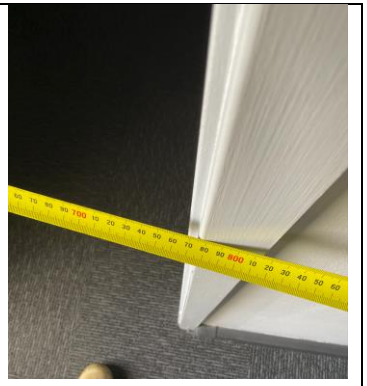
| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 112*<br>  <br>*Figure 113* |
| 37. | Cl 14 AS 1428.1-2009 | Internal switches / Controls - Throughout | a) During the inspection, a number of switches and controls were located less than 900mm or more than 1.1m above finished floor level and also less than 500mm from internal corners and or objects which obstruct access to and use of the door controls as such they would not comply with Section 1 4 of AS 1428.1-2009. All door controls, lighting controls and all controls other than general purpose outlets are required to comply with the above. Switches to the existing accessible sanitary compartments where non-compliant also a number of the card readers and push-button door openers were installed within 500mm of internal wall corners and objects obstructing access. | **Compliance Readily Achievable**<br>a) Electrical contractor to undertake a detailed inspection of all internal switches / controls (such as door access swipes), and where required, reposition switches in accordance with the requirements of Section 14 of AS 1428.1-2009 where ever located on the affected part and within the new work zones noting that all new works will also need to comply |  <br>*Figure 115* |

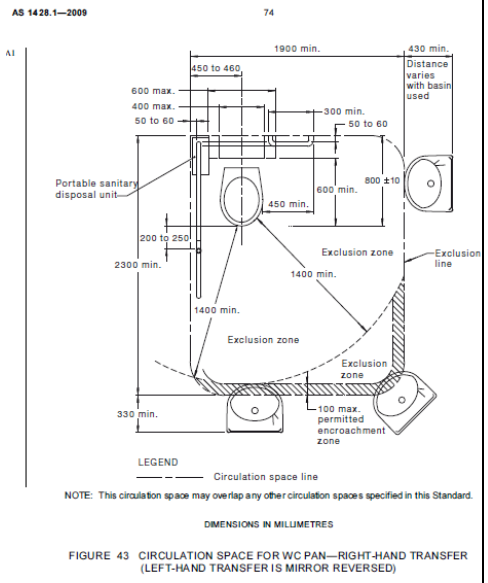
| | | | | | |
|---|---|---|---|---|---|
| | | | b) Accessible sanitary compartments are required to be provided with rocker action toggle switches with a minimum dimension 30x30mm or a push pad with a dimension of 25mm. The existing switches were found to comprise a standard switch. |  <br>*Figure 114*<br>**Compliance Readily Achievable**<br>Existing switches would need to be replaced and or a sensor light will need to be provided to the accessible sanitary compartments throughout the building. Upgrade works of the existing would be required where the existing compartments are altered and or located on a path of travel. |  <br>*Figure 116*<br>  <br>*Figure 117* |
| 38. | D4D4<br><br>2019 Amdt 1 ref D3.3 | Lift | The following comments are made with respect to the existing lifts serving the building:<br>+ The passenger lift does not achieve a clear unobstructed width of 1400x1600mm. Nor does it provide sufficient space for a stretcher facility.<br>+ No switches call buttons are to be located within 500mm of any internal corner in accordance with cl. 14 of AS 1428.1-2009<br>Lift car floor linings could not be verified as achieving minimum slip rating of P2 in accordance with AS 4586-2013 | **Performance Solution:**<br>Upgrading of existing lift access would need to be reviewed in conjunction with the affected part assessment. |  <br>*Figure 118* |

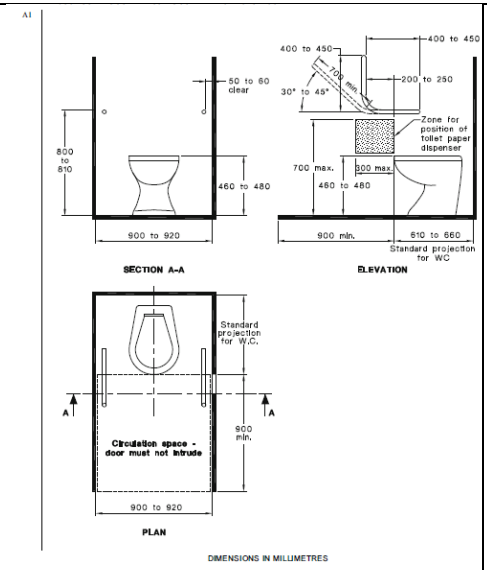
| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 119* |
| 39. | D4D5<br><br>2019 Amdt 1 ref D3.4 | Exemptions | An area is not required to be accessible where<br>+ Access would be inappropriate because of the particular purpose for which the area is used<br>+ Where the area poses a health and safety risk for a person with a disability<br>Any path of travel to a space noted above | **Compliance Readily Achievable:**<br>Having regards to the existing building the following areas would be considered to not require access as follows;<br>+ Plant rooms<br>+ Lift machine room<br>+ Comms EDB rooms/cupboards<br>+ Cleaners areas<br>To be noted during any proposed re-purposing works. Final extent of areas not required to be accessible will be determined in consultation with the future design consultants |  <br>*Figure 120* |
| 40. | D4D6<br><br>2019 Amdt 1 ref D3.5 | Accessible carparking | There was no existing accessible carparking spaces identified within the review it is noted approx. 50 car spaces were identified within the basement areas.<br><br>Class 5 require 1 space per 100 spaces.<br>Class 9b require 1 space per 50 spaces. | **Does Not Comply/Rectification works Required**<br>**Further Information Required:**<br><br>Cofirmation is required how accessbile car parking is to be achieved for the building noting there is not an accessway from basement carpark levels to the lifts.<br>Accessible carparking space shall be provided with a shared space and bollard as required under 2890.6.<br>The accessible car parking space shall be provided with an international symbol of access that is line marked with yellow slip resistant lines 80-100mm wide as per AS 2890.6.<br>All of the designated accessible carparking bays shall be located in a space with an overhead clearance of min 2500mm. Min 2.2m is required to |  <br>*Figure 121* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | get to accessible park however low beams are present throughout.<br>The fall of the parking space shall not be in excess 1:33.<br>A compliant accessway is required from accessible car space to and within the building. | |
| 41. | D3D7<br><br>2019 Amdt 1 ref D3.6 | Braille and tactile signage | In a building required to be accessible braille and tactile signage must be provided to all:<br>+ Required accessible sanitary facilities<br>+ Spaces with hearing augmentation<br>+ Ambulant sanitary facilities<br>+ Non-accessible pedestrian entrances (way finding signage)<br>+ Each door required to be provided with an exit sign<br>+ Braille and tactile signage is to comply with sub-clause (a) and Specification 3.6.<br>Non-compliant signage was provided to the existing sanitary facilities and no signage was provided to the various exits from the building | **Compliance Readily Achievable**<br>Where refurbishment works are proposed to the existing sanitary facilities compliant braille and tactile signage will need to be provided. This inclides signage throughout as per D3.6 and AS 1428.1-2009 including the following: -<br>+ Signage is to be located between 1200mm-1600mm above FFL;<br>+ Signs with single lines of characters are to have the line of the tactile characters between 1250mm-1350mm above FFL;<br>+ Signage tactile characters must be raised or embossed to a height between 1mm-1.5mm;<br>+ Upper case letter to be between 20mm-55mm;<br>+ Signage is to be contrasting & is to comply with BCA Specification D3.6.<br>  <br>  <br>*Figure 122*<br>  <br>  <br>*Figure 123* |  <br>*Figure 125* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Furthermore, it is recommended that braille and tactile exit signage be provided to the required exits in accordance with the requirements of this clause.(Typical example below).<br>  <br>*Figure 124* | |
| 42. | D4D8<br><br>2019 Amdt 1 ref D3.7 | Hearing Augmentation | During the inspection it could not be determined whether there was an inbuilt amplification system installed within the building. | **Compliance Readily Achievable**<br>Where refurbishment works are proposed in the future or re-pruposing works in areas contianing an inbuilt aplification system, the hearing augmentation system would need to be upgraded accordingly |  <br>*Figure 126* |
| 43. | Cl. 13 AS 1428.1-2009 | Doorway clearances/ hardware and Circulation space - Throughout | a) A number of the existing doors throughout the building did not achieve a clear unobstructed width of 850mm as required by AS 1428.1-2009 this includes to any openable leaf of a double door set,<br><br>b) A number of the doorways did not achieve compliant latch side clearance based on location of adjoining nib walls columns within corridors, hinge side clearances.<br><br>c) Where self-closers were fitted to doors other than fire doors maximum force to open the door is not to exceed 20N it was not clear whether the existing doors would comply in this regard.<br><br>d) Door hardware was installed onsite was found to be of the type which would not slip in the event of a person using the hardware. i.e. D handle this was found in a number of | **Does Not Comply/Rectification works Required**<br>**Performance Solution:**<br>a) The extent of upgrade works to the existing doorways will depend on the proposed areas of work in the future and the 'Affected Part' upgrade requirements to be determined as part of future design stages. Where there is a double door set with an encroachment on the active leaf less than 850mm there may be scope under a perforamnce solution to rationalise the width through operational management strategies. Otherwise rectification works will be required<br>**Does Not Comply/Rectification works Required**<br><br>b) A number of the rooms which are not provided with compliant circulation space, There is also potential scope to rationalise access requirements under a perforamcne solution where there are alterantive areas which are accessible and offer the same functions within the |  <br>*Figure 128* |

| | | | | | |
|---|---|---|---|---|---|
| | | | locations throughout various classrooms opening to internal courtyards, snibs and key locks were installed to a number of doors throughout<br>  <br><br>FIGURE 35(A) EXAMPLE OF ACCEPTABLE DOOR HARDWARE FOR HINGED DOORS<br>*Figure 127* | building. The upgrading of the existing doorways will need to be confirmed based on any affected part triggers which may apply based on the proposed works.<br>**Does Not Comply/Rectification works Required**<br>c) Testing of the self closer would be required to confirm compliance it appears a number of the doors would excceed this limit based on the conditions on site. Upgrading would be triggered as part of the affected part upgrade works<br>**Does Not Comply/Rectification works Required**<br>d) Door hardware would need to be reviewed throughout in conjunction with the proposed works where located on the affected part the hardware will need to be upgraded accordingly |  <br>*Figure 129*<br>  <br>*Figure 130* |

| | | | | | |
|---|---|---|---|---|---|
| | | | | |  <br>*Figure 131* |
| 44. | F4D5<br><br>2019 Amdt 1 ref<br>F2.4 & Cl. 15 of AS 1428.1 | Accessible Sanitary Facilities | The existing building currently has a single accessible unisex facility located on ground floor only and no male or female facilities suitable for a person with an ambulant disability.<br><br>  <br>AS 1428.1—2009 74<br>1900 min.<br>430 min.<br>Distance varies with basin used<br>450 to 460<br>600 max.<br>400 max.<br>50 to 60<br>300 min.<br>50 to 60<br>Portable sanitary disposal unit<br>800 ±10<br>600 min.<br>450 min.<br>200 to 250<br>2300 min.<br>Exclusion zone<br>Exclusion line<br>1400 min.<br>1400 min.<br>Exclusion zone<br>Exclusion zone<br>330 min.<br>100 max. permitted encroachment zone<br>LEGEND<br>Circulation space line<br>NOTE: This circulation space may overlap any other circulation spaces specified in this Standard.<br>DIMENSIONS IN MILLIMETRES<br>FIGURE 43 CIRCULATION SPACE FOR WC PAN—RIGHT-HAND TRANSFER (LEFT-HAND TRANSFER IS MIRROR REVERSED)<br>*Figure 132* | **Does Not Comply/Rectification works Required**<br>Ground floor is the only storey that has a designated accessible unisex facility. BCA F2.4 requires accessible unisex facilities to be provided at 50% of the banks of each storey which would require an accessible unisex facility on each storey.<br><br>**Further Information Required:**<br>Upgrade works to the existing sanitary facility will be triggered where refurbishment works are proposed and/or where it is a project requirements. Upgrade works would entail provision of accessible unisex sanitary facilties on storeys facilties are provided and construction or repusposing of ambulant facilaities to achieve the required clearances as per AS 1428.1.<br><br>Whereever localised upgrade of existing faciliteis are required aas a result of the proposed works ambulant facilities would need to be introduced to that bank of toilets to ensure compliance with the requirements of the BCA. |  <br>*Figure 134*<br>  <br>*Figure 135* |

| | | | | | |
|---|---|---|---|---|---|
| | | |  <br>FIGURE 53(A) SANITARY COMPARTMENT FOR PEOPLE WITH AMBULANT DISABILITIES—PLAN AND ELEVATION<br>*Figure 133* | |  <br>*Figure 136* |

## D. CONCLUSION

This report contains an audit of the existing Ray Walsh Council building which is located at Tamworth NSW against the deemed-to-satisfy provisions of the BCA 2022 particularly Parts D4 and AS 1428.1-2009. Further advice is required during the development of the design in the future however the findings of this audit outline key compliance issues and matters requiring consideration for upgrade as part of future works.