STEVE WATSON
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Cricket NSW Centre of Excellence, Sydney Olympic Park

BCA Assessment Report

Report 2019/0721 R1.3

Prepared for Cricket NSW
October 2019

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Client: Cricket NSW
Architect: Cox Architecture

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Author: Joshua Hawke
Verifier: Andrew Rys

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Author: Joshua Hawke
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Author: Joshua Hawke
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Author: Joshua Hawke
Verifier: Andrew Rys

Disclaimer:

This report is based on a desktop audit of preliminary documentation only.
Details contained in the report address issues of significance to broad BCA compliance relevant to this stage of design resolution.

This report is based on a review of the design documentation only. It represents a compliance report for "documentation to this point in time" and will be subject to amendment and expansion as project documentation develops

EXECUTIVE SUMMARY

This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning and Public Spaces, pursuant to Part 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This SSDA seeks consent for the design, construction and operation of a new Cricket NSW Centre of Excellence at Wilson Park, within Sydney Olympic Park.

The CNSWCC will comprise a state-of-the-art, dedicated, year-round cricket, training and administration facility that services both regional and metropolitan cricketers, as well as providing facilities for aspiring junior cricketers to support sport, social, health and educational programs.

The proposal relates to a development application to facilitate the development of a Cricket Centre of Excellence for Cricket NSW at the Wilson Park site.

The site is irregular in shape and comprises a single allotment of land with an area of 121,082m^2 and a leased area where development will occur with a site area of 65,767m^2.

Specifically, the works that are proposed for the DA include:

- A two-storey cricket centre, including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council compliant oval 136m long x 144m wide (16,040m^2)(Oval 1) and associated seating;
- A second oval (Oval 2) that complies with the Cricket Australia community guidelines for community club cricket (with a minimum diameter of 100m (6365m^2);
- Outdoor practice nets, 71 wickets with a minimum of 30m run ups;
- A double height (10.7m) indoor training facility with 15 wickets;
- A single storey shed for machinery and storage;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

SITE DESCRIPTION

The site is located at Wilson Park, in the suburb of Sydney Olympic Park, within the Cumberland Local Government Area (LGA) and is situated at the north western corner of the Sydney Olympic Park (SOP) precinct.

The site is located in proximity to a number of regionally significant facilities and amenities including the Olympic Park Railway Station, ANZ Stadium, Qudos Bank Arena and Sydney Showground, which are all approximately 2.5km south east of the site. Further to this, the site is located approximately 2km west of Wentworth Point.

The site's locational context is shown in **Figure 1** below.

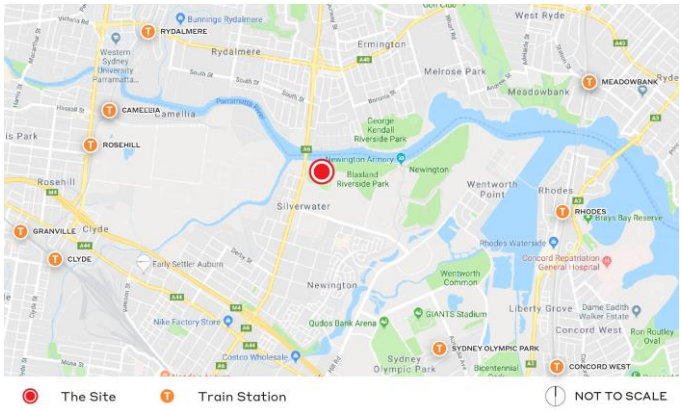

Figure 1 Locational context

The site is irregular in shape and comprises a single allotment of land with an area of 121,082m^2 and a leased area where development will occur with a site area of 65,767m^2. The leased area excludes the portion of the Wilson Park site that is used for remediation purposes, as shown in the aerial image of the site provided at **Figure 2**. The site is currently owned by the Sydney Olympic Park Authority (SOPA) and it is legally described as Lot C in DP 421320. The site is bounded by the Parramatta River to the north, Silverwater Correctional Complex to the east, a busway and industrial lands to the south and Silverwater Road to the west.

Figure 2 Site aerial

PLANNING APPROVALS STRATEGY

The site is located within the Sydney Olympic Park precinct, which is identified as a State Significant site in Schedule 2 of *State Environmental Planning Policy (State and Regional Development) 2011*. As the proposed development has a capital investment value exceeding $10 million, it is declared to be State Significant Development (SSD) for the purposes of the EP&A Act, with the Minister for Planning and Public Spaces the consent authority for the project.

This SSDA seeks approval for the detailed scope of development described in **Section 4.0** above.

The Department of Planning, Industry and Environment provided the Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development on 23 July 2019. This report has been prepared having regard to the SEARs as relevant.

An assessment of the proposed design of the Cricket NSW Centre of Excellence described above has been undertaken against the Deemed-to-Satisfy (DTS) provisions of the relevant sections of the Building Code of Australia (2019) and the applicable Building Regulations.

This report details the non-compliances identified that can be satisfied through means of a performance solution, to satisfy the Performance Requirements of the BCA.

Summary of BCA Parameters: Building A

Building Use:	Indoor Cricket hall, Administration & Community Centre
Class of Occupancy	Class 5 & 9b
Type of Construction Required	Type C (Large Isolated Building)
Rise Storeys:	2 Storeys
Number of Storeys:	2 Storeys
Effective Height:	4.22m (Office Level RL8.850 – Internal cricket hall RL 4.630)

Summary of BCA Parameters: Building B

Building Use:	Grounds Maintenance & Storage Facilities
Class of Occupancy	Class 7b
Type of Construction Required	Type C
Rise Storeys:	1 Storey
Number of Storeys:	1 Storey
Effective Height:	0m

The following are the main issues that require amendments to the design through the design development phase of the project:

1. Excessive travel distances within the indoor cricket hall and level 1 office level (Clause D1.4);
2. Number of occupants to utilise the facilities – Consideration of egress width & toilet facilities (Clauses D1.6, D1.13 & F2.3);
3. Swing of required exit doors to the ground floor administration & cricket hall building (Clause D2.20);
4. Number of accessible spaces within the tiered lecture room (Clause D3.9); and
5. Location of the door associated with the accessible facility within the community building (Clause F4.8)

The following are the main issues proposed to be addressed by the Fire Safety Engineer via a Performance Solution however more may be identified through means of the design development phase of the project:

1. Use of synthetic grass within the indoor cricket hall (Clause & Spec C1.10);
2. Provisions associated with the perimeter vehicle access (Clause C2.4);
3. Extended travel distances throughout the site (Distance to a point of choice, Distance to the nearest available exit and distance between alternative exits) (Clauses D1.4 & D1.5);
4. Elements associated with the Hydrant Booster Assembly and other associated hydrant infrastructure (Clause E1.3);
5. Use of 50m fire hose reels within the indoor cricket hall (Clause E1.4);
6. Omission and rationalisation to the buildings sprinkler system (Clause & Spec E1.5);
7. Omission and rationalisation to the buildings smoke exhaust system (Clause E2.2a, Spec E2.2a & b); and
8. Height and type of exit and directional exit signs within the indoor cricket hall (Clause E4.8 & AS2293.1-2005).

The following are the main issues proposed to be addressed by the Access Consultant via a Performance Solution however more may be identified through means of the design development phase of the project:

1. Use of a single handrail in lieu of 2 to the tiered lecture theatre stair located on the ground floor (Clause D2.17)

The design is capable of complying with the requirements of the relevant sections of the Environmental Planning Assessment Act 1979, the Environmental Planning and Assessment Regulations 2000 and the Building Code of Australia 2019. Compliance is subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report.

Further detailed regulatory reviews will need to be progressively undertaken as designs advance and become more resolved to ensure compliance is achieved.

Whilst not precluding the issue of a Construction Certificate, it is noted that many detailed design issues are not indicated on the drawings. These issues are designated "Compliance Readily Achievable" or "Additional Details Required" in the *"Status*" column of the assessment in Section 14 of the report and should be resolved prior to construction.

Table of Contents

1. Introduction

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The proposal relates to a development application to facilitate the development of a Cricket Centre of Excellence for Cricket NSW at the Wilson Park site.

The site is irregular in shape and comprises a single allotment of land with an area of 121,082m^2 and a leased area where development will occur with a site area of 65,767m^2.

Specifically, the works that are proposed for the DA include:

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Site Description

The site is located at Wilson Park, in the suburb of Sydney Olympic Park, within the Cumberland Local Government Area (LGA) and is situated at the north western corner of the Sydney Olympic Park (SOP) precinct.

The site is located in proximity to a number of regionally significant facilities and amenities including the Olympic Park Railway Station, ANZ Stadium, Qudos Bank Arena and Sydney Showground, which are all approximately 2.5km south east of the site. Further to this, the site is located approximately 2km west of Wentworth Point.

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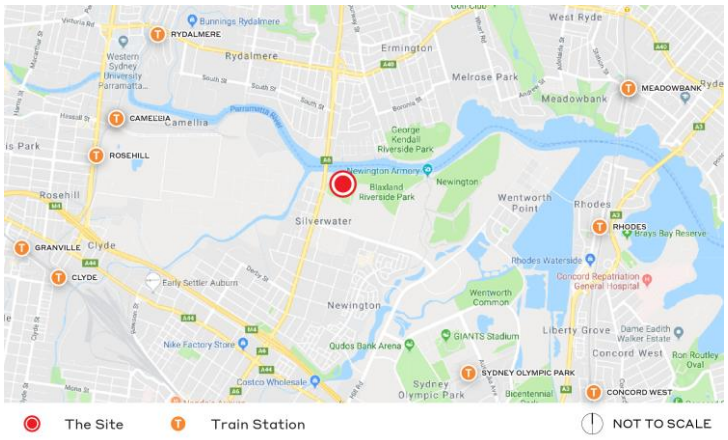

Figure 1 Locational context

The site is irregular in shape and comprises a single allotment of land with an area of 119,894m^2 and a leased area where development will occur with a site area of 65,768m^2. The leased area excludes the portion of the Wilson Park site that is used for remediation purposes, as shown in the aerial image of the site provided at **Figure 2**. The site is currently owned by the Sydney Olympic Park Authority (SOPA) and it is legally described as Lot C in DP 421320. The site is bounded by the Parramatta River to the north, Silverwater Correctional Complex to the east, a busway and industrial lands to the south and Silverwater Road to the west.

Figure 2 Site aerial

2. Purpose

The purpose of this report is to provide an assessment of the design documentation against the current requirements of the BCA.
The assessment is undertaken for the purpose of, and to the extent necessary for, submission to the Depart of Planning & Environment under a state Significant Development (SSD) development application (DA) for the Cricket NSW Centre of Excellence.

3. Scope and Limitations

3.1. Scope

The scope of this assessment is limited to the the design documentation referenced in Appendix A of this report.

3.2. Limitations

The following limitations apply to the assessment:

- The report considers matters of a significant nature only and should not be considered exhaustive.

- The plans are assessed to the extent necessary to issue a construction certificate under Part 6 of The Act. This means the design has been assessed to be capable of complying with the BCA without necessarily having all the detailed design completed at this stage.
- Details in regard to access for people with disabilities have been assessed to the extent of the deemed-to-satisfy provisions of the BCA/Premises Standard only. A detailed assessment against AS 1428 series, AS/NZS 2890.6 – 2009 and AS 4299 – 1995 is outside the scope of this report
- Generally, the assessment does not incorporate a detailed assessment of the requirements of the Australian Standards.
- Structural and services documentation have not been reviewed.
- Appraisals are limited to the provisions of the BCA and the Premises Standards. Other legislative requirements have not been considered. It does not address additional or specific requirements stipulated under other areas such as Safety in Design, Construction Safety, Disability Discrimination, Planning and Environment, Occupational Health and Safety, Health, Dangerous Goods, etc, which may impact on the design and use of the building. It is recommended that appropriate advice from suitably qualified consultants should be obtained for further information on these areas.

4. National Construction Code 2019 –Volume 1: Building Code of Australia Class 2 to Class 9 Buildings

The National Construction Code (NCC) is a uniform set of technical provisions for the design and construction of buildings, structures and plumbing/drainage systems which is separated into 3 volumes. Volume 1 of the NCC is the Building Code of Australia (BCA) for Class 2 to 9 buildings which is the document to which the assessment in this report has been undertaken against. The BCA is legislated under The Act and specifies the Performance Requirements for the design and construction of Class 2 to 9 buildings that must be satisfied to achieve compliance. The Performance Requirements can only be satisfied by a Performance Solution, Deemed-to-Satisfy (DTS) solution or a combination of both.

5. Performance Solutions

The BCA is written in a performance format which allows performance-based buildings. This has allowed for innovation and variation from the prescriptive deemed-to-satisfy requirements of the BCA, whilst maintaining the principle levels of health, safety and amenity of building occupants.

Performance solutions are generally adopted when a nominated deemed-to-satisfy provision appears inappropriate for the design, or when a proposed design varies from the prescriptive requirements of the BCA. Subsequently, a performance solution supported by Fire Engineering analysis can determine whether a proposed design that varies from prescriptive requirements, will satisfactorily meet the performance provisions of the BCA. Ultimately, it is with the discretion of the relevant building surveyor whether to accept a deviation from the prescriptive code requirements.

Utilising the performance provisions may result in more economical and somewhat safer building, however alternative solutions may require additional on-going maintenance. It is in this instance that all parties, such as the building owner, insurance companies, proposed tenants, etc., are aware of this decision-making process and are kept informed of any additional requirements needed to maintain the level of safety.

6. Statutory Framework

The following table summarises the key statutory issues relating to fire safety and the BCA in relation to the certification of new building works.

Issue	Legislative reference	Comment
New Work	EPAR 145	All new works must comply

6.1. New Work

Clause 145 of the EPAR requires that all new work comply with the current requirements of the BCA.

This means that all works proposed in the plans are required to comply but that existing features of an existing building need not comply with the BCA unless required to under other clauses of the legislation.

7. Methodology

7.1. Process adopted

The following method of assessment has been used in the preparation of this report:

1) Determine the basic assessment data for the building.
2) Assess the design of the building against the current Deemed-to-Satisfy requirements of Sections B, C, D, E, F, G, H and J of the BCA. Establish the status of each clause into the following categories:
    1. Clause is administrative information only **(Noted)**;
    2. Clause is or is not relevant to the proposed work **(Applicable or N/A)**
    3. The proposed work complies with the requirements of the clause **(Complies)**;
    4. Compliance with the requirements of the clause is unable to be determined from the documentation provided **(Compliance Readily Achievable)**. A recommendation in the "Comments" column will indicate what is required to achieve compliance. The design and construction teams are responsible to ensure compliance is achieved;
    5. Compliance with the requirements of the clause is unable to be determined from the documentation provided. Additional details or relevant information required to verify compliance (**Additional Details Required**);
    6. Proposed work does not comply with the requirements of the clause **(Does Not Comply)**. An indication will be given in the Comments field as to the nature of the issue and whether an alternative solution has been proposed to address the issue;
    7. Proposed work is to be addressed on a performance basis via an Alternative Solution satisfying the relevant Performance Requirements. (**Performance Solution**);
3) Nominate the status of the design against each BCA requirement;
4) Provide comments against each BCA requirement as appropriate.

8. Description of Proposed Development

The proposal relates to a development application to facilitate the development of a Cricket Centre of Excellence for Cricket NSW at the Wilson Park site. Specifically, the works that are proposed for the DA include:

- A two-storey cricket centre, including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council compliant oval 136m long x 144m wide (16,040m^2) (Oval 1) and associated seating;
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- A double height (10.7m) indoor training facility with 15 wickets;

- A single storey shed for machinery and storage;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

9. Assessment Data Summary

The following basic assessment data has been drawn from the provisions of the BCA 2019.

9.1. Assumptions

Assumptions made in the preparation of this report are listed below:

1. The main administration and indoor cricket hall building are to be constructed to conform with the provisions of a large isolated building. The building fits within the limitations of a Type A constructed building however future design and construct flexibility has been taken into consideration; and
2. The project is to be constructed in compliance with being considered large isolated and compliant with such provisions (sprinklers & perimeter vehicle path) where not addressed through a performance solution.

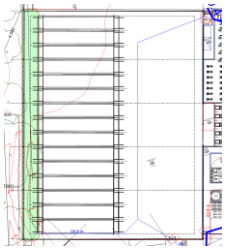
9.2. Interpretations

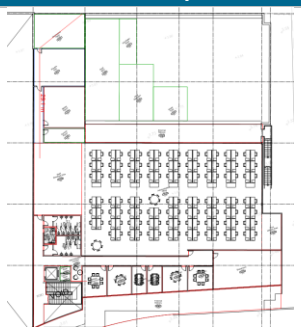
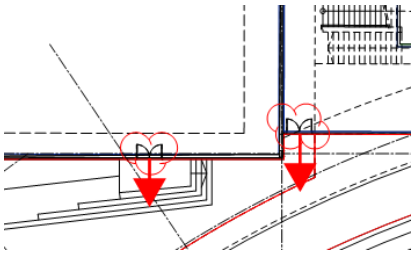
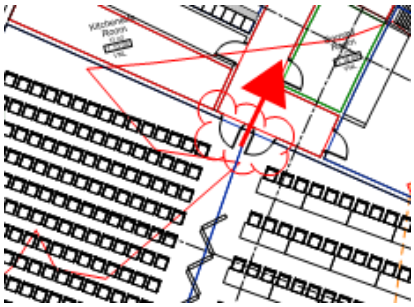
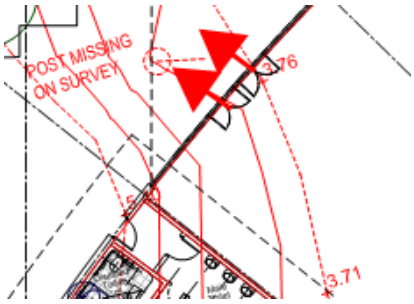
A number of issues within the BCA are recognised to be interpretive in nature. Where these issues are encountered, interpretations are made that are consistent with Standard Industry Practise and/or Steve Watson & Partners policy formulated in regard of each issue.

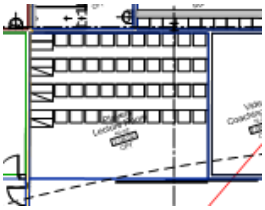
10. Issues Requiring Resolution

10.1. Issues requiring amendments to plans

The following issues need to be resolved before issuing the Construction Certificate.

Item	DTS Clause	Description of Non-compliance	Requirement to Satisfy BCA
1.	D1.4	The following areas have been designed with extended travel which exceeds distances even permissible by means of a performance solution through a fire Engineer: • The indoor cricket hall due to the implementation of netting  • Level 1 is afforded with 2 exits however access doorways are not provided to determine travel distance compliance	Amended drawings documenting compliance with access doors in the path of travel or additional exits are to be provided on drawings for review by the certifying Authority

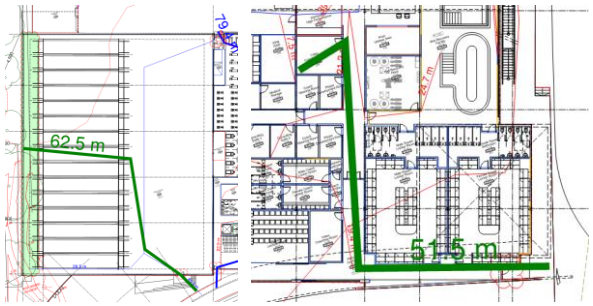
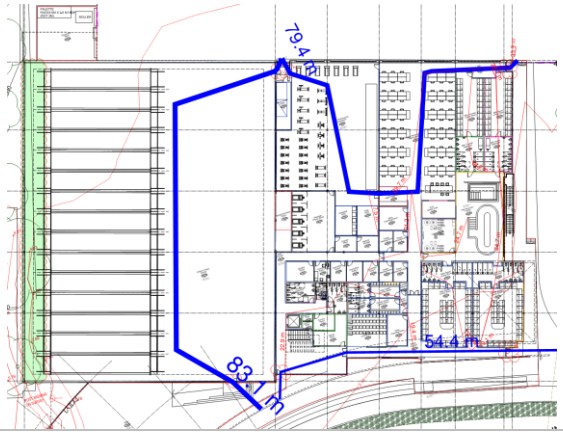
Item	DTS Clause	Description of Non-compliance	Requirement to Satisfy BCA
			
2.	D1.6, D1.13 & F2.3	The proposed number of occupants to utilise the proposed spaces have not been provided to SWP for consideration. Due to the use of the site guidance is to be provided from the client to SWP. In providing these details a thorough assessment can be undertaken to determine the number of sanitary facilities required as well as the required egress width from each portion of the building.	The client is to provide occupant numbers to the certifying authority to determine compliance of the facilities provided in the design
3.	D2.20	The following doors swing in a direction that obstruct evacuating occupants: **Main Administration & Cricket Hall Building** **Ground Floor**   	The doors notated to the left are required to be re-swung in a direction that does not obstruct occupants. Amended drawings are required to be provided to the certifying Authority for review. ***Note – All doors which are located within the path of travel which facilitate movement of 100 or more occupants are to swing in a direction of egress. These door are to then be provided with a compliant panic bar considered under Clause D2.21 of the BCA.***
4.	D3.9	For the estimated 40 seats associated to the players lecture room, 3 wheelchair spaces are required to be provided. The spaces are required to be provided in accordance with Table D3.9	The provisions of the required accessible spaces are to be documented in updated drawings and issued to the certifying authority for review.

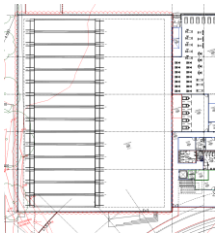
Item	DTS Clause	Description of Non-compliance	Requirement to Satisfy BCA
		where 1 single space and 1 group of 2 spaces are to be provided within the room. All spaces are required to conform with the requirements associated with section of AS1428.1-2009. 	*Should any deviations occur this will need to be considered and addressed by means of a performance solution through the projects access consultant.*
5.	F4.8	The accessible facility located within the community building is currently not documented with a door. The only location of a proposed door is to be located so that it opens directly into the reception area 	Details of the amended design to ensure compliance is achieved with the provisions of clause F4.9 is to be provided to the certifying authority for review. 1. *Implementation of an airlock, hallway or other room with a floor area of not less than 1.1m² and fitted with self-closing doors; or* 2. *The sanitary compartment must be provided with mechanical exhaust ventilation and the doorway serving the room adequately screened from view*

10.2. Performance solutions required - Fire Engineer

It is proposed to satisfy the following non-compliances via performance solutions:

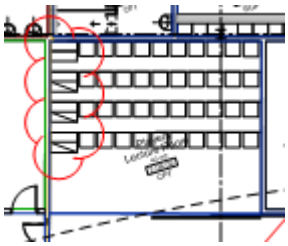
Item	Non-Compliance	DTS Clause	Description	Performance Requirement
1.	Fire Hazard Properties	C1.10 & Spec C1.10	The use of synthetic grass is proposed within the main internal cricket hall. This material does not conform with the requirements of specification C1.10 in particular by achieving an adequate critical radiant heat flux rating	CP4
2.	Requirements for open space and vehicular access	C2.4	The following non-compliances applicable to the perimeter vehicle access for the site are to be addressed as a Performance Solution by the projects Fire Safety Engineer: • The surface and loadbearing capacity of the emergency vehicle access may be proposed to be addressed in consultation with the Fire Brigade and the projects structural engineer; • Perimeter access to the western portion of the proposed building provides a 6m vehicular path which is located greater than 18m from the building it serves: ○ 54m to the north east of the building 	CP9

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
			• Perimeter access is only provided to 3 out of the 4 sides of the building by means of a ring road as a cricket oval is implemented on the 4th side. Therefore access is not provided in a forward direction around the entire building; and • The perimeter path is proposed to be installed with gates and other such security devices along the perimeter vehicle path.	
3.	Exit travel distances	D1.4	The following areas have been identified with distances exceeding 20m to a point of choice: • Up to 30m in lieu of 20m throughout all areas associated with the administration areas, indoor sports hall & community building (both ground floor & level 1) The following areas have been identified with exit travel distances exceeding 40m: • Up to 65 m in lieu of 40m throughout all areas associated with the indoor sports hall and Up to 55m within the ground floor administration level 	DP4 & EP2.2
4.	Distance between alternative exits	D1.5	The following areas have been identified with distances between alternative exits exceeding 60m: • Up to 85m between alternative exits within the ground floor administration area and indoor cricket hall 	DP4 & EP2.2
5.	Fire Hydrants	E1.3	The following performance solutions may need to be addressed by the projects fire engineer however will need to be firmed upon review of relevant schematic design documentation: • The location of the Hydrant booster assembly; • External fire hydrants located around the perimeter walls are not adequately protected per the requirements of Clause 3.2.2.2(e) as doors or other non-fire separated elements are located within the 2m required; and • Installation of hydrant outlets are proposed beneath awnings	EP1.3

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
			associated with the proposed development. These outlets are still to be considered external to achieve adequate coverage throughout the building	
6.	Fire Hose Reels	E1.4	The use of fire hose reels with a hose length of more than 36m (50m) are proposed to be installed to serve the proposed indoor cricket hall	EP1.1
7.	Sprinklers	E1.5 & Spec E1.5	The following performance solutions are required to be considered by the projects fire safety engineer for the sprinkler system: • Omission or rationalisation to the sprinklers located within the indoor cricket hall; and  • Non-conforming separation between sprinkler & non-sprinkler protected areas.	EP1.4
8.	Smoke Hazard Management	E2.2 & Spec E2.2a & E2.2b	Rationalisation or omission of a smoke exhaust system to the main buildings indoor cricket hall	EP2.2
9.	Design and operation of exit signs	E4.8 & AS2293.1-2005	Exit signs are potentially located to a height greater than 2.7 metres from floor level within the new indoor cricket hall portion of the proposed development.	EP4.8

10.3. Performance solutions required - Access Consultant

It is proposed to satisfy the following non-compliances via performance solutions:

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
1.	Handrails	D2.17	The proposed lecture theatre located within the ground floor of the main building currently has a set of stairs to access the tiered seating. The provision of only a single handrail is documented within the design for the stair. This stair to comply with DTS provisions of AS1428.1-2009 is required to have a handrail on both sides.  Details of the use of a single handrail in lieu of 2 handrails is required to be documented by the projects access consultant and adopted under a performance solution.	DP2

11. Relevant Authorities

Where an alternative solution is proposed to meet the performance requirements contained in any one or more of the Category 2 fire safety provisions referral to Fire and Rescue NSW under Clause 144 of the EP&A Regulations is required in either of the following types of buildings:

(a) a class 9a building that is proposed to have a total floor area of 2,000 square metres or more, or

(b) a building (other than a class 9a building) that is proposed to have:

  (i) a fire compartment with a total floor area of more than 2,000 square metres, or

  (ii) a total floor area of more than 6,000 square metres,

12. Statutory Fire Safety Measures

All fire/essential safety measures installed within the building are required required to be certified upon completion of the project and prior to occupation of the building by the owner of the building, by issuing a Final Fire Safety Certificate under the Act.

The owner is also required under the Act to certify each of the Fire Safety Measures annually by issuing a Fire Safety Statement.

With performance solutions, additional or more frequent maintenance may result.

13. Conclusion

The design is capable of complying with the requirements of the relevant sections of the of the Act and EPAR and the BCA 2019 subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report.

Further detailed regulatory reviews will need to be progressively undertaken as designs advance and become more resolved to ensure compliance is achieved.

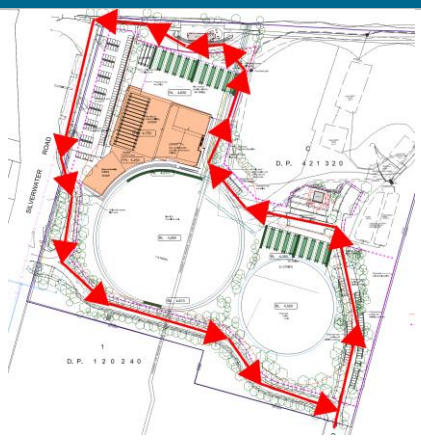
14. BCA 2019 – Clause by Clause Assessment

Clause	Description	Comment	Status
BCA Version			
BCA 2019	**BCA version** The BCA is generally updated every 3 years with amendments influencing health, safety and amenity features required within the building. Legislation typically allows future BCA changes to be ignored provided substantial progress on the design of the development has previously occurred.	This report assumes that the applicable BCA version is BCA 2019. In addition, requirements of the Premises Standards (PS) are covered as relevant.	Noted
Section A: General Provisions			
A5.2	**Suitability of materials** Every part of a building must be constructed in an appropriate manner to achieve the requirements of the BCA, using materials that are fit for the purpose for which they are intended.	The builder is responsible to adopt and install appropriate proprietary accredited building products and is to ensure that those products/assemblies are fit for the purpose they are intended and are installed in accordance with the manufacturer's specifications/ requirements for that system.	Compliance readily achievable
Part A6	**Classification and usage** Usage on each level of the building is as follows: **LEVEL** / **USE** / **CLASS** **Main Building** Ground – Indoor Cricket Hall, Community Facilities & a Gym – 9b Level 1 – Administration Facilities – 5 **Separate Building** Ground – Grounds Maintenance & Storage – 7b		Noted
Part A7	**United buildings** Buildings are deemed united when two or more buildings adjoining each other are connected and used as one building.		
Section B: Structure			
B1.1	**Resistance to actions** The resistance of the building must be greater than the most critical action effect resulting from different combinations of actions	Certification from a qualified structural engineer will need to be provided at Construction Certificate stage	Compliance readily achievable
B1.2	**Determination of individual actions** The magnitude of individual actions must be determined in accordance with Clause B1.2 of the BCA.	Certification from a qualified structural engineer will need to be provided at Construction Certificate stage	Compliance readily achievable
B1.3	-	No provisions	-

Clause	Description	Comment	Status
B1.4	**Determination of structural resistance of materials and forms of construction** The structural resistance of materials and forms of construction must be determined in accordance with the relevant Australian Standards in accordance with Clause B1.4 of the BCA.	Certification from a qualified structural engineer will need to be provided at Construction Certificate stage.	Additional details required
B1.5	**Structural software** Structural software used in computer aided design of a building or structure that uses design criteria based on DTS provisions of the BCA must comply with the ABCB Protocol for Structural Software.	-	Noted
B1.6	**Construction of buildings in flood hazard areas**	-	N/A
Part B	**Structure and importance level** Assessment of the building structure will be required for dead, live, wind, earthquake, fire and other loads required by current day AS Codes. The design of the structure must be based on the appropriate 'Importance Level' under BCA Table B1.2a.	The building has an importance level 2 in accordance with Table B1.2a.	Compliance readily achievable
Section C: Fire Resistance			
Part C1 – Fire Resistance and Stability			
C1.1	**Type of Construction Required** Type C Construction The proposed building is of Class 5, 7b & 9b with a BCA Type C (Large isolated building) fire resisting construction being required. ***Refer to Appendix D for the relevant fire resisting requirements. Noting that other Clauses within the report including Clauses C1.11, C2.7, C2.12, C2.13 and C3.3 also have fire rating requirements.***	Both buildings A & B are to be erected in Type C fire resisting construction in accordance with Specification C1.1 of the BCA. Noting the building is currently considered to form a Large Isolated Building as the maximum compartment sizes set out by Table C2.2 of the BCA are exceeded. Note: As the structure is located more than 3m from any fire source feature no fire rating to the structure is required.	Compliance readily achievable
C1.2	**Calculation of rise in storeys** **Effective Height / Calculation of rise in storeys**. Rise in storeys is a defined BCA term addressing the number of main building levels excluding basements. Effective height is defined under the BCA as vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units). These parameters influence the BCA provisions applicable to the building.	The following parameters apply: **Main Administration Building** Rise in storeys: 2 storeys Effective Height: 4.22m (Office Level RL8.850 – Internal cricket hall RL 4.630) **Ground Maintenance & Storage Building** Rise in storeys: 1 storey Effective Height: 0m	Noted
C1.3	**Buildings of multiple classification**	The Buildings are required to be constructed of Type C fire resisting construction as the classification of the top storey is a Class 5	Noted

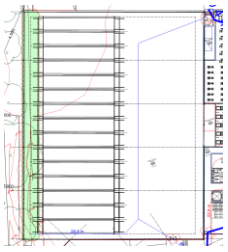
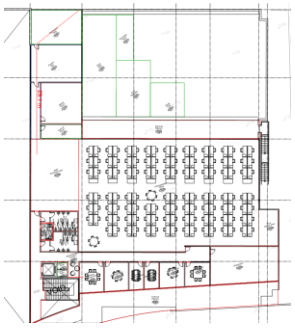
Clause	Description	Comment	Status
C1.4	**Mixed types of construction**		N/A
C1.5	**Two storey Class 2, 3 or 9c buildings**		N/A
C1.6	**Class 4 parts of buildings**		N/A
C1.7	**Open spectator stands and indoor sports stadiums**		N/A
C1.8	**Lightweight construction** Lightweight construction used in a wall system must comply with Specification C1.8. Lightweight construction used as a fire-resisting covering of a steel column or the like, and where the covering is not in continuous contact with the column must have the voids filled to a height of not less than 1.2m above the floor and where the column is liable to be damaged must be protected by steel or other suitable material.	Details of the proposed systems to be installed must be in accordance with a tested prototype.	Compliance readily achievable
C1.9	**Non-combustible building elements**		N/A
C1.10	**Fire hazard properties** Floor materials, floor coverings and wall and ceiling lining materials need to comply with prescribed fire hazard properties. Refer to Appendix C1.10.	Compliance assumed and will require verification test data for all timber and other combustible linings and materials, including:- • Carpets • Vinyl's (walling and flooring) • Timber flooring and wall linings • Veneered wall panelling • Spray-on insulation material • Other combustible finishes • Carpark soffit insulation fire test reports, based on 'room fire testing' will be required to meet fire brigade consent conditions if applicable.	Compliance readily achievable
		The fire hazard properties of floor linings and coverings, wall linings and ceiling linings must comply with Specification C1.10 and NSW Specification C1.10. Test reports to be provided certifying that: • the floor linings achieve a critical radiant flux 1.2 • The wall and ceiling linings achieve a group 1, 2 or 3 rating Test reports of all the proposed lining materials are required to be provided to the project certifying Authority for review and acceptance prior to the installation	
		The use of synthetic grass is proposed within the main internal cricket hall. This material does not conform with the requirements of specification C1.10 in particular by achieving an adequate critical radiant heat flux rating. As such the material is required to be addressed through a performance solution through the projects fire engineer.	Performance Solution
C1.11	**Performance of external walls in fire** Concrete external walls that could collapse as complete panels are to be designed in accordance	Specification C1.11 applies to buildings having a rise in storeys of not more than 2 with concrete external walls that could	Compliance Readily Achievable

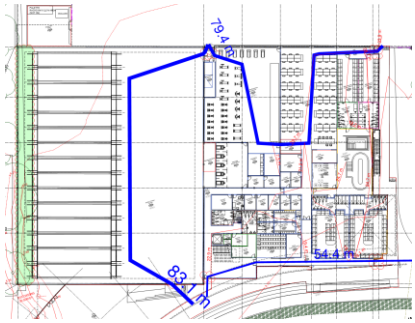
Clause	Description	Comment	Status
	with Specification C1.11 to minimise the likelihood of external walls collapsing outwards in the event of a fire and separating from supporting members.	collapse as complete panels which: a) consist of either single or multiple panels attached by steel connections to lateral supporting members; and b) depend on those connections to resist outward movement of the panels relative to the supporting members, and c) have a height to thickness ratio not greater than 50	
		Details of compliance of the external wall design is required to be submitted to SWP along with a statement of compliance against a suitably qualified Structural Engineer nominating compliance of the wall design against the requirements of BCA Specification C1.11	Additional details required
C1.12	-	This Clause has deliberately been left blank	-
C1.13	**Fire-protected timber: Concession**		N/A
C1.14	**Ancillary elements**		N/A
Part C2 – Compartmentation and Separation			
C2.1	**Application of Part**	Clauses C2.2, C2.3 and C2.4 do not apply to a sprinkler protected carpark, open deck carpark or open spectator stand.	Noted
C2.2	**General floor area and volume limitations (Type C construction)** The floor area and volume limitations are: Class 5, 9b or 9c: 3,000m^2 and 18,000m^3 Class 6, 7, 8 or 9a: 2,000m^2 and 12,000m^3	The floor area and volume of the building exceeds the maximum limitations outlined by Table C2.2 and considered one fire compartment **The floor areas exceeds the area and volume limitations set under table C2.2 for Type C construction. As such provisions associated with a Large Isolated Building are required to be considered for this site (Refer to clauses C2.3, C2.4, E2.2a & E2.2b for detailed provisions) to permit flexibility in construction and interlinking of compartments.** Note – The ground maintenance & storage facility is considered to fall within the limitations of Type C construction and not considered as part of the LIB provisions considered below.	Does Not Comply
C2.3	**Large isolated buildings – *Administration & Cricket hall building only*** Where the building exceeds the limitations under Clause C2.2 above but not more than 18,000m^2 nor 108,000m^3: **Class 5, 6, 7, 8 or 9:** • Sprinkler protection throughout; and • 6m wide perimeter vehicular access complying with Clause C2.4(b)	As the main building is of class 5, 6, 7 & 9 then the building is required to be protected throughout with a sprinkler system complying with Specification E1.5 & must be provided with a perimeter vehicle access complying with C2.4(b) that is providing the emergency vehicles a continuous path of travel in a forward direction from a public road. The vehicular path is also required to have a minimum unobstructed width of 6m with no part of its furthest boundary more than 18m from the building.	Compliance Readily Achievable

Clause	Description	Comment	Status
		 See further comments and compliance matters under Clause C2.4 below.	
C2.4	**Requirements for open space and vehicular access**	The following non-compliances applicable to the perimeter vehicle access for the site are to be addressed as a Performance Solution by the projects Fire Safety Engineer: • The surface and loadbearing capacity of the emergency vehicle access may be proposed to be addressed in consultation with the Fire Brigade and the projects structural engineer; • Perimeter access to the western portion of the proposed building provides a 6m vehicular path which is located greater than 18m from the building it serves: ○ 54m to the north east of the building  • Perimeter access is only provided to 3 out of the 4 sides of the building by means of a ring road as a cricket oval is implemented on the 4th side. Therefore access is not provided in a forward direction around the entire building; and • The perimeter path is proposed to be installed with gates and other such security devices along the vehicle path.	Performance Solution
C2.5	**Class 9a and 9c buildings**		N/A
C2.6	**Vertical separation of openings in external walls**		N/A
C2.7	**Separation by fire walls**		N/A
C2.8	**Separation of classifications in the same storey**		N/A
C2.9	**Separation of classifications in different storeys**	The buildings are of Type C construction	N/A

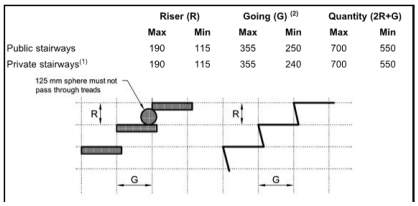
Clause	Description	Comment	Status
C2.10	**Separation of lift shafts**	The lift only traverses across 2 levels	N/A
C2.11	**Stairways and lifts in one shaft**	The lift is within its own shaft	Complies
C2.12	**Separation of Equipment**	Equipment that comprises of the following must be separated from the remainder of the building by construction with an FRL as required under Specification C1.1 but not less than 120/120/120: • batteries with voltage over 12 volts and a storage capacity exceeding 200kWh. (Batteries within an electricity network substation are exempt.); • lift motor rooms; • emergency generators sustaining emergency equipment operating in emergency mode; and • central mechanical smoke control plant **Structural details & specifications of the wall types and relevant FRLs proposed are to be submitted from a suitably qualified Structural Engineer to the Certifying Authority upon application of the relevant approval**	Additional details required
C2.13	**Electricity supply system** A main switchboard, which sustains emergency equipment, must be separated from the remainder of the building by 2hr fire rated construction.	All switchboards sustaining emergency equipment must be constructed so that emergency equipment switchgear is separated from non-emergency equipment switchgear by metal partitions designed to minimise the spread of faults. **Structural details & specifications of the wall types and relevant FRLs proposed are to be submitted from a suitably qualified Structural Engineer to SWP upon application of the relevant approval for any main switchboard room within the proposed development.**	Additional Details Required
C2.14	**Public corridors in Class 2 & 3 buildings**		N/A
Part C3 – Protection of Openings			
C3.1	**Application of Part**		Noted
C3.2	**Protection of openings in external walls** Openings in the external walls of the building are to be protected in accordance with C3.4, being fire rated windows, external sprinklers or the like, if: • less than 3m to side or rear boundary, • less than 6m from the far boundary of a road or lane, • Less than 6m from another building on the same allotment.	The grounds maintenance and storage building in parts is located within 3m from the site boundary (fire source feature). It is unclear whether any openings are located within these walls. Should this be the case the openings are to be protected in accordance with the requirements of clause C3.4 or alternatively addressed by means of a performance solution with details to be provided to the certifying authority prior to the issue of the relevant approval.	Additional Details Required

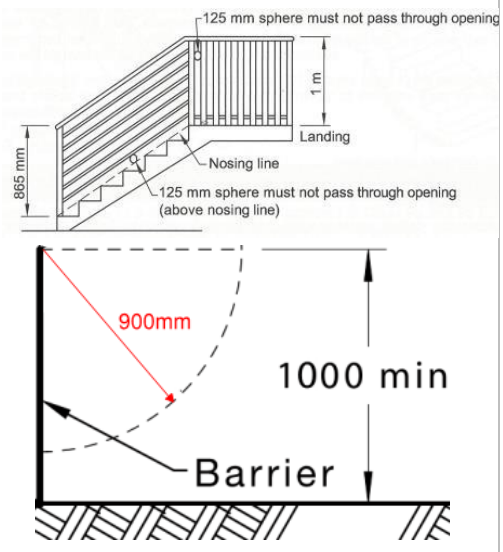
Clause	Description	Comment	Status
			
C3.3	**Separation of external walls and associated openings in different fire compartments**		N/A
C3.4	**Acceptable method of protection**	The following methods of protection are permissible within Clause C3.4 of the BCA- **Window Protection** • Wall wetting sprinklers; • -/60/- Fire rated windows that are automatic closing or permanently fixed in the closed position; or • -/60/60 automatic fire shutters. **Doorway Protection** • wall wetting sprinklers used with doors that are self-closing; or • Automatic closing or -/60/30 self-closing or automatic closing fire doors.	Noted
C3.5	**Doorways in fire walls**		N/A
C3.6	**Sliding fire doors**		N/A
C3.7	**Protection of doorways in horizontal exits**		N/A
C3.8	**Openings in fire-isolated exits**		N/A
C3.9	**Service penetrations in fire-isolated exits**		N/A
C3.10	**Openings in fire-isolated lift shafts**		N/A
C3.11	**Bounding construction: Class 2, 3, 4 and 9 buildings**		N/A
C3.12	**Openings in floors and ceilings for services**		N/A
C3.13	**Openings in shafts**		N/A
C3.14	-	This clause has deliberately been left blank	-
C3.15	**Openings for service installation**		N/A
C3.16	**Construction Joints**		N/A
C3.17	**Columns protected with lightweight construction**	Columns must be protected in accordance with the identical tested prototype.	Compliance readily achievable
Section D: Access and Egress			
Part D1 - Provision for Escape			
D1.1	**Application of Part**		Noted
D1.2	**Number of exits required**		Complies
D1.3	**When fire-isolated stairways and ramps are**	The subject building only contains 2 storeys	N/A

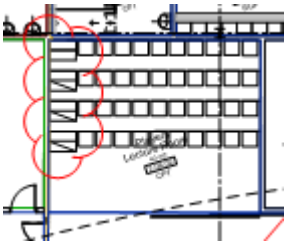
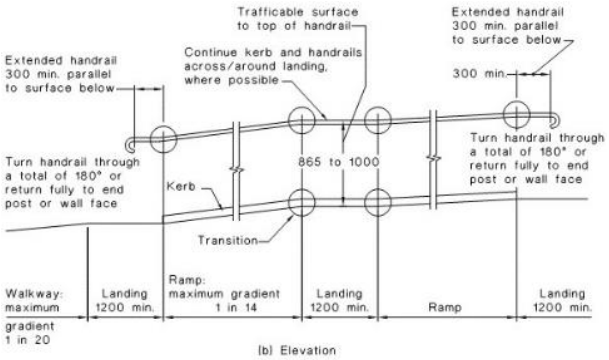
Clause	Description	Comment	Status
	required	and fire isolated exits are not required within the proposed building.	
D1.4	**Exit travel distances** No point on the floor must be more than 20m to an exit or a point in which travel in different directions to 2 exits is available, in which case, the maximum distance to 1 exit cannot exceed 40m.	The following areas have been identified with distances exceeding 20m to a point of choice: • Up to 30m in lieu of 20m throughout all areas associated with the administration areas, indoor sports hall & community building (both ground floor & level 1) The following areas have been identified with exit travel distances exceeding 40m: • Up to 65 m in lieu of 40m throughout all areas associated with the indoor sports hall and Up to 55m within the ground floor administration level  These distances are required to be implemented within a performance solution addressed by the projects fire engineer.	Performance solution
		The following areas have been designed with extended travel which exceeds distances even permissible by means of a performance solution through a fire Engineer: • The indoor cricket hall due to the implementation of netting  • Level 1 is afforded with 2 exits however access doorways are not provided to determine travel distance compliance 	Does Not Comply

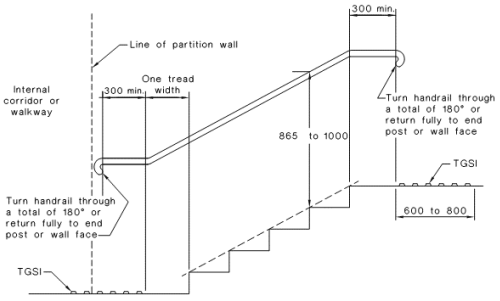
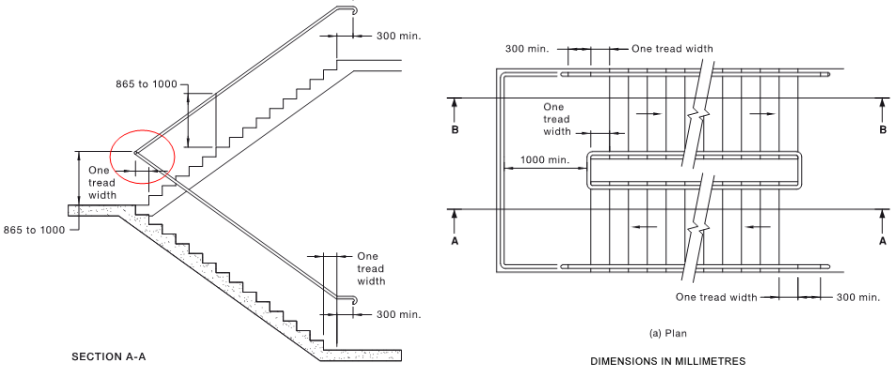
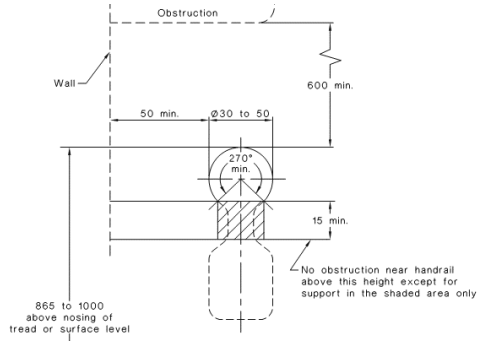
Clause	Description	Comment	Status
		Amended drawings documenting compliance with access doors or additional exits are to be provided on drawings for review by the certifying Authority	
D1.5	**Distance between alternative exits** The following travel distance limits apply: • ≤ 20m to a single exit or to a point of choice to alternative egress paths, and • ≤ 40m to the closest alternative exit; • ≤ 60m travel distance between alternative exits and not less than 9m between alternative exits; • Exit paths to alternative exits should not converge at any point to be less than 6m apart.	The following areas have been identified with distances between alternative exits exceeding 60m: • Up to 85m between alternative exits within the ground floor administration area and indoor cricket hall  These distances are required to be implemented within a performance solution addressed by the projects fire engineer.	Performance Solution
D1.6	**Dimensions of exits and paths of travel to exits**	The proposed number of occupants to utilise the proposed spaces have not been provided to SWP for consideration. Due to the use of the site guidance is to be provided from the client to SWP. In providing these details a thorough assessment can be undertaken to determine the number of sanitary facilities required as well as the required egress width from each portion of the building.	Does Not Comply
D1.7	**Travel via fire-isolated exits**		N/A
D1.8	**External stairways or ramps in lieu of fire-isolated exits**		N/A
D1.9	**Travel by non-fire-isolated stairways or ramps**		N/A
D1.10	**Discharge from exits**	An exit must not be blocked nor be capable of being blocked at its point of discharge. The path of discharge from the fire-isolated exit must achieve a width of not less than 1m.	Compliance readily achievable
		Details of the methods of protection of the doors are required to be provided on the plans to demonstrate compliance against the requirements of BCA Clause D1.10	Additional Details Required
D1.11	**Horizontal exits**		N/A
D1.12	**Non-required stairways, ramps or escalators**		N/A
D1.13	**Number of persons accommodated**	The proposed number of occupants to utilise the proposed spaces have not been provided to SWP for consideration. Due to the use of the site guidance is to be provided from the client to SWP. In	Does Not Comply

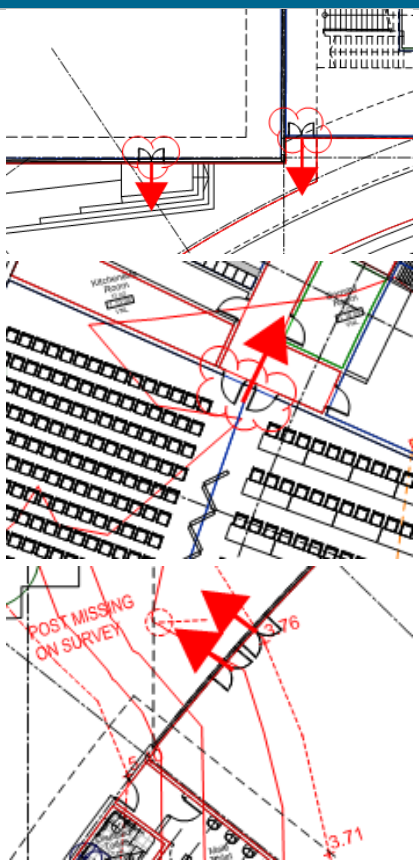
Clause	Description	Comment	Status
		providing these details a thorough assessment can be undertaken to determine the number of sanitary facilities required as well as the required egress width from each portion of the building.	
D1.14	**Measurement of distances**		Noted
D1.15	**Method of measurement**		Noted
D1.16	**Plant rooms, lift machine rooms and electricity network substations: Concession**		Noted
D1.17	**Access to lift pits**		Noted
Part D2 – Construction of Exits			
D2.1	**Application of Part**		Noted
D2.2	**Fire-isolated stairways and ramps**		N/A
D2.3	**Non-Fire Isolated Stairways and Ramps**	The proposed non-fire isolated stairs serving the level 1 office level is required to be constructed in accordance with the provisions of D2.3, or only of- • Reinforced or pre-stressed concrete; or • Steel in no part less than 6mm thick; or • Timber that- ○ Has a finished thickness of not less than 44mm; and ○ Has an average density of not less than 800kg/m3 at a moisture content of 12%; and ○ Has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue **Details of the proposed methods of construction and materials used for this staircase interlinking level 1 with the ground floor are required to be submitted to the Certifying Authority upon application for the relevant approval for review**	Additional Details Required
D2.4	**Separation of rising and descending stair flights**		N/A
D2.5	**Open access ramps and balconies**		N/A
D2.6	**Smoke lobbies**		N/A
D2.7	**Installations in Exits and Paths of Travel**	Electrical boards and the like are to be located within and enclosed by non-combustible construction or have a fire-protective covering with the doorway suitably sealed against smoke spreading from the enclosure. Generally the services or equipment may be enclosed in non-combustible construction such as MDF with a solid core **Details of the proposed doors including notation of smoke seals and / or metal**	Additional details required

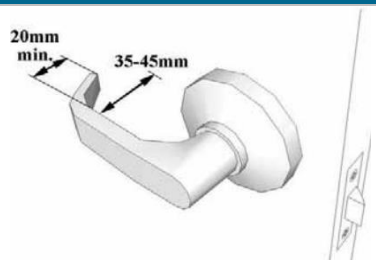
Clause	Description	Comment	Status
		backed solid core doors are to be incorporated within a door schedule to be submitted for the issue of the relevant Construction Certificate for review	
D2.8	**Enclosure of space beneath stairs and ramps**	If enclosures are proposed beneath stairs the following are to be considered: **Fire Isolated Stairways:** Must not be enclosed to form a cupboard or similar enclosed space. **Non-Fire Isolated Stairways:** Must not be enclosed to form a cupboard or similar enclosed space unless the enclosing walls have an FRL of not less than 60/60/60 and any doorway to the enclosed space is fitted with a self-closing -/60/30 fire door.	Compliance readily achievable
D2.9	**Width of required stairways and ramps**		N/A
D2.10	**Pedestrian ramps**		N/A
D2.11	**Fire-isolated passageways**		N/A
D2.12	**Roof as open space**		N/A
D2.13	**Going and Risers** Stairways within this development are to be constructed and comply with the following- • Stairs are to have risers measuring between 115-190mm and goings between 250-355mm. • Goings and Risers are to satisfy the equation of 2R+G=700(max) and 550(min). • Adjacent risers, or between adjacent goings a variation no greater than 5mm is permitted and the largest and smallest riser within the flight or the largest and smallest going within a flight is not to exceed a variation of 10mm. • Under the requirements of AS1428.1-2009 open riser are not permitted. • All treads to be fitted with non-slip finish or non-skid strips. • Treads are required to have a surface or nosing strip with a slip-resistance classification not less than listed in Table D2.14 when tested in accordance with AS 4586	 **Details and specifications of all stairways are to be submitted to the Certifying Authority for review prior to the issue of the relevant approval**	Additional Details Required

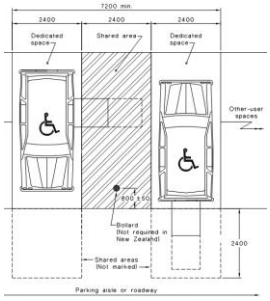
<table>
<tr><th>Clause</th><th>Description</th><th>Comment</th><th>Status</th></tr>
<tr><td>D2.14</td><td>Landings
Ramps Surfaces, stair tread surfaces or nosing strips, and stair landing surfaces, or landing nosing strips to a flight below, must achieve slip-resistance classifications to AS4586-2013 as follows: -
<table>
<tr><th><u>Application</u></th><th><u>Dry Surface Conditions</u></th><th><u>Wet Surface Condition</u></th></tr>
<tr><td>1:14 or steeper ramps</td><td>P4 or R11</td><td>P5 or R12</td></tr>
<tr><td>Ramps of 1:14 to 1:20</td><td>P3 or R10</td><td>P4 or R11</td></tr>
<tr><td>Tread or Landing Surface</td><td>P3 or R10</td><td>P4 or R10</td></tr>
<tr><td>Nosing Strip or Landing Strip</td><td>P3</td><td>P4</td></tr>
</table></td><td>Certification / test reports on the slip resistance of the surfaces will need to be provided on constructed elements.
All stairways and ramps located throughout the ground floor are considered to adopt slip ratings associated with wet surface conditions within the table to the left.</td><td>Compliance readily achievable</td></tr>
<tr><td>D2.15</td><td>Thresholds
Steps should not occur at doorways without a threshold landing except as follows:
In a building required to be accessible and the doorway opens to a road or open space and is provided with a threshold ramp or step ramp in accordance with AS1428.1; or
In any other case a single 190mm step is permitted at doors leading to the exterior.</td><td>Note that where access for people with disabilities is required it is not permitted to have a step at the threshold of a doorway</td><td>Compliance readily achievable</td></tr>
<tr><td>D2.16</td><td>Barriers to Prevent Falls
 
</td><td>Balustrades complying with Deemed-to-Satisfy provisions of the BCA are to be provided to where the level of the surface below is 1m or more;
Where the level of the surface below is 4m or more, a balustrade or other barrier must not facilitate climbing of horizontal elements between 150mm and 760mm above the floor;
Any opening in the balustrade must not permit a 125mm sphere to pass through the balusters; and
Climbable elements cannot be located within 900mm of the top rail of each balustrade where the fall is greater than 4m. This measurement is taken in an arc as seen in the extract to the left.
Detailed designs, drawings and specifications of the balustrade design are to be submitted to the certifying Authority for a further detailed review upon application of the relevant approval</td><td>Additional Details Required</td></tr>
<tr><td>D2.17</td><td>Handrails
Handrails to exits including parts of fire isolated exits serving an area required to be accessible to people with disabilities must comply with Clause 12 of</td><td>Handrails are to be provided in compliance with Clause D3.3 and include the following-
Non-Fire Isolated Stairways and Ramps</td><td>Additional Details Required</td></tr>
</table>

Clause	Description	Comment	Status
	AS1428.1: - • Handrails not to obstruct circulation space • 30-50mm diameter • 865-1000mm above nosing line of stairs • 865-1000mm above ramps and landings • Consistent height throughout • 50mm grip clearance and no obstructions to handhold • Continuous at internal (return) landings Provided with handrail extensions and 180-degree curled ends	All stairs and ramps not used as an emergency exit are to have handrails installed on both sides that comply with Clause 10 & 11 of AS1428.1-2009 • **Consistent Handrail Heights for all stairways** The height of the top of the handrail, measured at a height of between 865mm – 1000mm vertically from the stair nosing shall be consistent throughout the ramp (or stairs) and any landings. All stairs including fire stairs are required to be designed to comply with Clause 12 of AS1428.1 – 2009 **Detailed designs, drawings and specifications of the handrail design are to be submitted to the certifying Authority for a further detailed review upon application of the relevant approval**	
		The proposed lecture theatre located within the ground floor of the main building currently has a set of stairs to access the tiered seating. The provision of only a single handrail is documented within the design for the stair. This stair to comply with DTS provisions of AS1428.1-2009 is required to have a handrail on both sides.  Details of the use of a single handrail in lieu of 2 handrails is required to be documented by the projects access consultant and adopted under a performance solution.	Performance Solution – Access Consultant
	Ramps  (b) Elevation DIMENSIONS IN MILLIMETRES FIGURE 14 RAMP HANDRAILS **Stairways**		

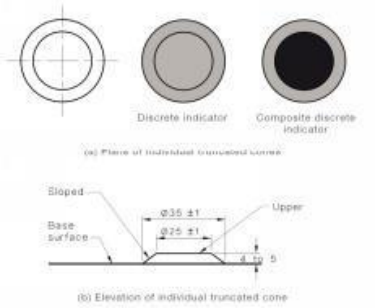
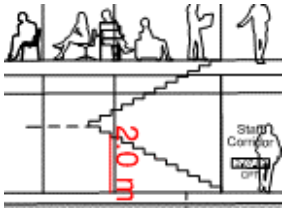
Clause	Description	Comment	Status
	 SECTIONAL VIEW DIMENSIONS IN MILLIMETRES FIGURE 26(B) STAIRWAY LOCATION AND HANDRAIL EXTENSIONS AT END OF STAIRWAY OTHER THAN AT LINE OF BOUNDARY  DIMENSIONS IN MILLIMETRES **Handrail Profile** 		
D2.18	**Fixed Platforms, Walkways, Stairways and Ladders** Platforms, walkways, stairs, ladders and the like that give access to and around plant and equipment, machine rooms, attic spaces and other low use areas of the building are permitted provided that construction details are to AS1657.		Noted
D2.19	**Doorways and doors**		N/A
D2.20	**Swinging doors** Defined exit doors that serve a part of a building with a floor area over 200m^2 must swing outward in the direction of exit travel. Must not encroach more than 500mm into the required width of the stair or 100mm when fully open and swing in the direction of travel.	The following doors swing in a direction that obstruct evacuating occupants: **Main Administration & Cricket Hall Building** **Ground Floor**	Does Not Comply

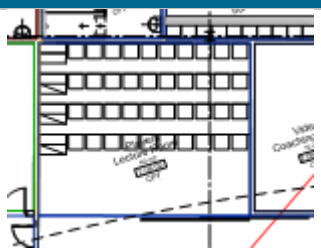
Clause	Description	Comment	Status
		 The doors notated above are required to be re-swung in a direction that does not obstruct occupants. Amended drawings are required to be provided to the certifying Authority for review. ***Note – All doors which are located within the path of travel which facilitate movement of 100 or more occupants are to swing in a direction of egress. These door are to then be provided with a compliant panic bar considered under Clause D2.21 of the BCA.***	
D2.21	**Operation of latch**	Doors throughout the proposed development used as a required exit or forming part of a required exit or in the path of travel to a required exit are required to achieve compliance with the following: **Class 5, 7b & 9b (Where less than 100 occupants in any given room)** • A single hand downward action on a single device to conform with the requirements as extracted below from AS1428.1-2009	Additional Details Required

Clause	Description	Comment	Status
		 **Class 9b (Where more than 100 occupants in any given room)** • A device such as a panic bar to allow a single hand pushing action.  Door hardware and associated specifications are required to be submitted to the Certifying Authority upon application for the relevant approval for review	
D2.22	**Re-Entry from Fire-Isolated Exits**		N/A
D2.23	**Signs on doors**	No fire isolated exits are proposed within the development	N/A
D2.24	**Protection of openable windows**	Where the fall distance from the floor to the surface below is 4m or more or where a release device occurs to a required screen, an additional barrier at 865mm above floor level is required and must be non-climbable with gaps no greater than 125mm between elements.	Compliance readily achievable
D2.25	**Timber stairways: Concession**		N/A
NSW D2.101	**Doors in the path of travel in an Entertainment Venue**		N/A
Part D3 – Access for People with Disabilities			
D3.1, D3.2 & D3.3	**General building access requirements, Access to buildings and Parts of the building to be accessible**	A report prepared by an accredited access consultant is to be provided which in detail assesses accessibility provisions associated throughout the project	Compliance readily achievable
D3.4	**Exemptions** Certain areas may not need to be accessible if the area is deemed inappropriate because of the particular use or the area would pose a health or safety risk for people with disabilities.		Noted

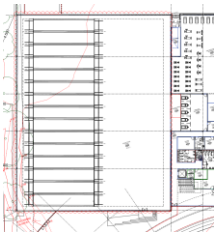
Clause	Description	Comment	Status
D3.5	**Accessible Car Parking** The accessible parking spaces must comply with AS/NZS 2890.6 – 2009. General requirements are: - • 2.4m x 5.4m. • Flat even surfaces. • Designated and sign posted for disabled users. As the carparking provided is external no head height clearances need to be considered ***Note – The carpark has the provision of 183 Car spaces. This therefore requires the precinct to be provided with a total of 2 Accessible car spaces***.	Accessible car parking spaces for people with disabilities are to be provided in compliance with AS/NZS 2890.6.  **Details of height clearances including service drawings and Architectural sections & elevations of the accessible car spaces are to be submitted upon application of the Construction Certificate for review.** ***Class 5 & 9b*** *This class 9b development requires for every 100 car spaces, 1 space required to accessible.* **The number of required car parking spaces throughout this development is required to be assessed by the project Access Consultant and provide confirmation to SWP that the correct numbers have been implemented to the serve the site against the BCA & Relevant DA Conditions**	Additional Details Required
D3.6	**Signage** Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness in accordance with AS1428.1 must identify every accessible sanitary facility and space with a hearing augmentation system.  Signage must be provided within a room containing hearing augmentation identifying the type of hearing augmentation, the area covered in the room and if receivers are being used and where the receivers can be obtained.	Signage details for the proposed works must be in accordance with AS1428.1 - 2009 and Specification D3.6 of the BCA. **Details and a signage schedule are required to be submitted upon application of the relevant approval**	Additional details required

Clause	Description	Comment	Status
	 Every doorway required to be provided with an exit sign under Clause E4.5 is to be provided with braille and tactile signage that states "EXIT" and identify the floor level "LEVEL #".  Signage identifying ambulant accessible sanitary facilities in accordance with AS 1428.1 must be located on the door of the facility.   Where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.		
D3.7	**Hearing Augmentation** A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed in a room in a Class 9b building. An induction loop must be provided to not less than 80% of the floor area of the room or space served by the inbuilt amplification system; or A system requiring the use of receivers or the like, it must be available to not less than 95% of the floor area of the room or space served by the inbuilt amplification system, and the number of receivers provided must not be less than— A) If the room or space accommodates up to 500 persons, 1 receiver for every 25 persons or part thereof, or 2 receivers, whichever is the greater; B) If the room or space accommodates more than 500 persons but not more than 1000 persons, 20 receivers plus 1 receiver for every 33 persons or part thereof in excess of 500 persons;	Details of the proposed method of hearing augmentation is required to be documented in the specifications associated with the service design and approved by the Access Consultant & Certifying Authority against the provisions of Clause D3.7 and AS1428.1-2009.	Additional details required

Clause	Description	Comment	Status
	C) If the room or space accommodates more than 1000 persons but not more than 2000 persons, 35 receivers plus 1 receiver for every 50 persons or part thereof in excess of 1000 persons; and D) If the room or space accommodates more than 2000 persons, 55 receivers plus 1 receiver for every 100 persons or part thereof in excess of 2000 persons.		
D3.8	**Tactile Indicators (TGSIs)** Tactile indicators are to be provided to all stairways, ramps and escalators must be provided to warn people who are blind or have a vision impairment that they are approaching: • a stairway, other than a fire-isolated stairway, • a ramp other than a fire-isolated ramp, step ramp, kerb ramp, or • in the absence of a suitable barrier an overhead: ○ obstruction less than 2 m above floor level, other than a doorway; and ○ an access way meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point • Tactile ground surface indicators must comply with sections 1 and 2 of AS/NZS 1428.4.1	 **Tactile indicators are to be provided and shown on all stairs within the required Architectural drawings on submission for the relevant approval for review** *Note - All tactile indicators are required to achieve a 30% luminance contrast to achieve compliance* Where head heights below non fire isolated stairways within the atriums are proposed to be less than 2000mm a suitable barrier (rail or tactile indicators) is required to be documented on the drawings.  Drawings demonstrating the implementation of a suitable barrier where required is to be issued to the certifying Authority for review.	Additional details required
D3.9	**Wheelchair seating spaces in Class 9b assembly buildings** Where fixed seating is provided in a Class 9b assembly building, wheelchair seating spaces comply with AS 1428.1 must be provided in accordance with Table D3.9. The location of wheelchair seating is to be representative of the range of seating provided.	For the estimated 40 seats associated to the players lecture room 3 wheelchair spaces are required to be provided. The spaces are required to be provided in accordance with Table D3.9 where 1 single space and 1 group of 2 spaces are to be provided within the room. All spaces are required to conform with the requirements associated with section of AS1428.1-2009.	Does Not Comply

Clause	Description	Comment	Status
		 The provisions of such spaces are to be documented in updated drawings and issued to the certifying authority for review. *Should any deviations occur this will need to be considered and addressed by means of a performance solution through the projects access consultant.*	
D3.10	**Swimming pools**		N/A
D3.11	**Ramps**		N/A
D3.12	**Glazing on an Access way** On an *access way*, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.	Glazed shopfronts will need to have decals installed in accordance with AS 1428.1	Compliance readily achievable
Section E: Services and Equipment			
Part E1 – Fire Fighting Equipment			
E1.1	-	This Clause has deliberately been left blank	
E1.2	-	This Clause has deliberately been left blank	
E1.3	**Fire hydrants** Fire hydrant cover is required throughout to AS2419.1 from hydrants located externally, within fire stairs or at other approved locations.	A fire hydrant system must be provided complying with AS 2419.1 – 2005.	Compliance readily achievable
		Design documentation from the Hydraulic Engineer for the hydrant system in accordance with AS2419.1 is to be provided to the certification firm for review Design Documentation required incorporates however is not limited to the following items- • Hydrant Booster & Pump locations; and • Hydrant outlets including schematics and specifications of flows and pressures serving the building Note 1: Where external fire hydrants are located within 10m of the building, certification is to be provided from the Structural Engineer confirming the external wall will achieve an FRL from both sides of the wall of not less than 90/90/90 in accordance with AS2419.1. Note 2: Given the size of the development and complexity of the design the details associated with the sprinkler system need to be locked down before submitting the FEBQ and FER to NSW Fire	Additional Details Required

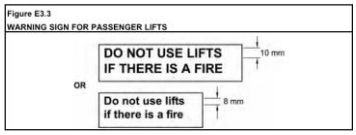
Clause	Description	Comment	Status
		& Rescue. The reason for this is to ensure all items are either DTS Compliant or require a performance solution. Items to consider are the following: • *Hydrant Booster* • *Pump set locations; and* • *Tanks*	
		The following performance solutions may need to be addressed by the projects fire engineer however will need to be firmed upon review of relevant schematic design documentation: • The location of the Hydrant booster assembly; • External fire hydrants located around the perimeter walls are not adequately protected per the requirements of Clause 3.2.2.2(e) as doors or other non-fire separated elements are located within the 2m required; and • Installation of hydrant outlets are proposed beneath awnings associated with the proposed development. These outlets are still to be considered external to achieve adequate coverage throughout the building	Performance Solution
E1.4	**Fire Hose Reels (Class 9b only. Not applicable to class 5 elements)** • Fire hose reels are required to be provided throughout the building. • Fire hose reels are to be installed internally within 4m of an exit or internally adjacent to a fire hydrant. • Additional hose reels are permitted to be installed further then 4m from exit to achieve coverage. • Fire hose reels are to be installed accordance with AS2441. • Hoses are not permitted to pass through fire or smoke doors to achieve hose reel cover where coverage is not achieved due to the installation of such door an additional intermediate hose reel is required the be installed.	Details hydraulic plans identifying the locations of all fire hose reels are to be provided to the certifying Authority for review. The hydraulic engineer must ensure that compliant coverage is provided to all areas of the building and must provide design certification to accompany the drawings certifying the design complies with Clause E1.4 of the BCA and AS2441 – 2005. **Hydraulic plans showing details of the fire hose reels and associated fire hose reel markups for the building will be required to be submitted to the Certifying Authority for review upon application of the relevant approval**	Additional Details Required
		The use of fire hose reels with a hose length of more than 36m (50m) are proposed to be installed to serve the proposed indoor cricket hall. Details of this departure are to be considered through the projects fire engineer and justified by means of a performance solution	Performance Solution
E1.5 & Spec E1.5	**Sprinklers** Fire sprinkler protection to AS2118.1-2017 is a mandatory requirement for the project due to the following: • The main building is defined as a large isolated	Provisions of a sprinkler system and associated infrastructure are required to be demonstrated within the services drawings in accordance with clauses 1 – 11 & 13 of Specification E1.5 of the BCA	Compliance readily achievable
		The designing services engineer is to	

Clause	Description	Comment	Status
	building (Refer to BCA Ref C2.3 above). ***Note – The new grounds maintenance and storage building is not required to be provided with an automatic fire suppression system.***	prepare the sprinkler system design incorporating but not limited to the following items and submit it to the certifying Authority for review: • Sprinkler booster locations, schematics and specifications; • Layout Schematics, Specifications and design documentation of the pump and valve sets and water tanks; • Layout Schematics, Specifications and design documentation of the sprinkler system layout throughout the building The Hydraulic Engineer is to advise compliance of the system against the requirements of BCA Clause E1.5, BCA Specification E1.5 and AS2118.1-2017.	Additional Details Required
		The following pieces of sprinkler infrastructure have not been documented within the current design. • A Pump room; • Booster assembly; • Water supply tanks; and • Valve sets Details of the infrastructure listed above is required to be documented on updated set of drawings to ensure compliance is achieved. Should elements not comply the fire engineer is to be consulted to ensure a performance solution is feasible for the non-compliance.	
		The following performance solutions are required to be considered by the projects fire safety engineer for the sprinkler system: • Omission or rationalisation to the sprinklers located within the indoor cricket hall; and  • Non-conforming separation between sprinkler & non-sprinkler protected areas.	Performance Solution
E1.6	**Portable Fire Extinguishers** Portable Fire Extinguishers are required be installed in accordance with the requirements of Table E1.6.	Portable fire extinguishers are required to be provided in accordance with Table E1.6 of the BCA and Sections 1, 2, 3 and 4 of AS 2444. **Details and locations of the proposed location of fire extinguishers are required to be submitted to the Certifying Authority upon application for the relevant**	Additional Details Required

Clause	Description	Comment	Status
		Construction Certificate for review	
E1.7	-	This Clause has deliberately been left blank	
E1.8	**Fire control centre**		N/A
E1.9	**Fire Services During Construction**	Fire services are required during construction, including fire extinguishers to suit Class A, B and C fire risks and be provided adjacent to each required exit.	Compliance Readily achievable
E1.10	**Provisions for special hazards**		N/A
Part E2 – Smoke Hazard Management			
E2.1	**Applicable of Part**	Part is not applicable to • open deck car parks • open spectator stands • a Class 8 electricity network substation with a floor area not more than 200m^2 • storerooms, etc. less than 30m^2 • sanitary compartments • plant rooms or the like	Noted

E2.2 & Spec E2.2a & E2.2b	**Smoke Hazard Management**
	Class 5 & 9b Main Building:
	The following smoke hazard management systems are required for the building containing class 5 & 9b components:
	• Automatic shutdown of air-handling system in accordance with NSW Table E2.2b to the main building and clause 4.10 of AS/NZS 1668.1;
	• Smoke detection system in accordance with Clause 6 of Specification E2.2a of the BCA to activate: -
	  ○ Automatic shutdown of air-handling systems; and
	  ○ Smoke exhaust system
	• Building occupant warning system (including SSISEP) is required to be installed throughout the building in accordance with Clause 7 of Specification E2.2a and AS1670.1-2018;
	• Fire alarm monitoring system connected to a fire station or fire station dispatch centre in accordance with AS 1670.3 – 2018; and
	• Automatic smoke exhaust system – Throughout the building a smoke exhaust system is required under Specification E2.2b due to the building being a Large isolated building and Class 9b.
	Class 7b Maintenance Building:
	It should be noted that this building is not required to be provided with any means of a smoke hazard management system
		Details demonstrating compliance with the relevant standards such as however not limited to drawings, specifications and design certification are required to be submitted to the Certifying Authority from the relevant services Engineer for approval upon application of the relevant approval
		It is recommended that the project's fire services and mechanical engineers review the smoke hazard managements requirements and provide comment (where applicable) on any co-ordination issues.
			Additional Details Required

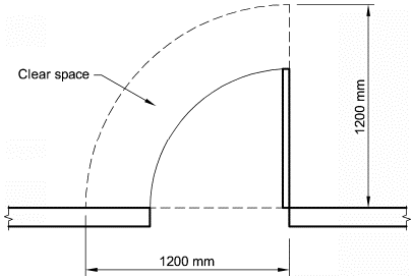
		It is recommended to liaise with the project's fire engineer to determine any scope in terms of opportunities for performance solutions in relation to smoke hazard management systems. SWP consider that the following performance solutions are to be considered by the projects fire engineer: • Rationalisation or omission of a smoke exhaust system to the main buildings indoor cricket hall	Performance Solution
E2.3	**Provisions of special hazards**		N/A
Part E3 – Lift Installations			
E3.1	**Lift Installations** Electric and electrohydraulic lifts must comply with the design requirements of BCA Specification E3.1.	Certification of lift design to be provided	Compliance readily achievable

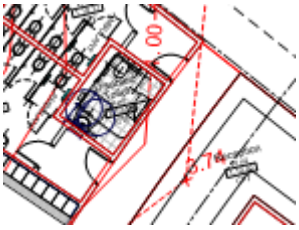
Clause	Description	Comment	Status
E3.2	**Stretcher facility in lifts**	Lifts installed within the building do not travel a height exceeding 12m	N/A
E3.3	**Warning Against Use of Lift in Fire** Warning signage is required at lift doors advising that lifts should not be used in the event of a fire.	The warning sign is to comply with the details and dimensions set out in Figure E3.3 of the BCA.  	Compliance readily achievable
E3.4	**Emergency lifts**		N/A
E3.5	**Landings**		Complies
E3.6	**Passenger lifts**	Every passenger lift must be one of the types identified in Table E3.6a, have accessible features in accordance with Table E3.6b and not reply on a constant pressure device for its operation if the lift car is fully enclosed.	Compliance readily achievable
E3.7	**Fire service control**	Lifts installed within the building do not travel a height exceeding 12m	N/A
E3.8	**Residential care buildings**		N/A
E3.9	**Fire service recall control switch**	Lifts installed within the building do not travel a height exceeding 12m	N/A
E3.10	**Lift car fire service drive control switch**	Lifts installed within the building do not travel a height exceeding 12m	N/A
Part E4 – Emergency Lighting, Exit and Warning Systems			
E4.1	-	This clause has been intentional left blank	-

E4.2	**Emergency lighting requirements**
	Emergency lighting is to be provided throughout the building.
		Emergency lighting is to be provided in:
		• Every fire-isolated stairway, fire-isolated ramp or fire-isolated passageway.
		• Every passageway, hallway, corridor or the like, that is part of the path of travel to an exit.
		• In every room having a floor area more than 100m^2 that does not open to a corridor or space that has emergency lighting or to a road or open space.
		• In any room having a floor area more than 300m^2.
		• In every required non-fire isolated stairway
		• To every room or space that has public access in a Class 9b building if:
		  • the floor area in that storey is more than 300m^2;
		  • or if any point on the floor is more than 20m from the nearest doorway
			Additional details required

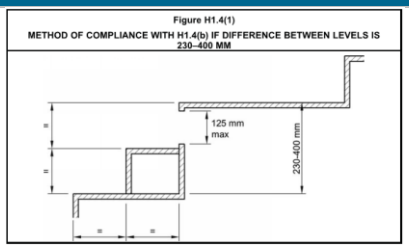
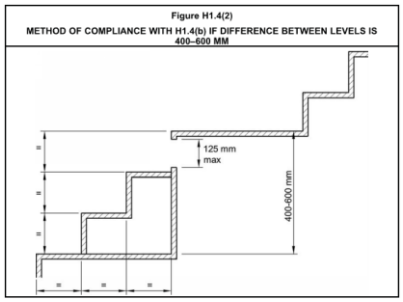
Clause	Description	Comment	Status
		opening directly to the road or open space; or • if the egress involves a vertical rise within the building of more than 1.5m. **Design Documentation including electrical specifications, plans and a design certificate are to be provided to the Certifying Authority amongst the documentation submitted for the relevant Construction Certificate application for further review**	
E4.3	**Measurement of distances**		Noted
E4.4	**Design and operation of emergency lighting**	Emergency lighting must comply with to AS2293.1	Compliance readily achievable
E4.5	**Exit signs** Exit signs are to be provided in accordance with Clause E4.5 of the BCA.	Exit signs must be clearly visible to a person approaching the exit and must be installed on, above or adjacent to; 1. A door providing direct egress from a storey to a stairway, passageway or ramp serving as a required exit; 2. A door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and 3. A door serving as or forming part of a required exit in a storey required to be provided with emergency lighting. **Design Documentation including electrical plans, specifications and a design certificate are to be provided to the certifying Authority upon application of the relevant Construction Certificate**	Additional details required
E4.6	**Direction signs**	Where an exit is not readily apparent then exit signs with directional arrows must be installed in appropriate positions in corridors, hallways, lobbies and the like indicating the direction to a required exit in accordance with Clause E4.6 of the BCA. **Design Documentation including electrical plans, specifications and a design certificate are to be provided to the certifying Authority upon application of the relevant Construction Certificate**	Additional details required
E4.7	**Class 2 and 3 buildings and Class 4 parts: Exemptions**		N/A
E4.8	**Design and operation of exit signs**	Exit signs are to operate in accordance with AS 2293.1 and be clearly visible at all times while the building is occupied.	Compliance readily achievable
		Exit signs are potentially located to a height greater than 2.7 metres from floor level within the new indoor cricket hall portion of the proposed development **Where exit signage is proposed to deviate from the provisions of AS2293.1-2005 (Installation height) the non-compliance is**	Performance Solution

Clause	Description	Comment	Status
		required to be addressed by the projects Fire Safety Engineer as a performance solution.	
E4.9	**Emergency warning and intercom systems**		N/A
Section F: Health and Amenity			
Part F1 – Damp and Weatherproofing			
F1.0	**Water Proofing of External Walls** Weatherproofing of external wall systems must be in accordance with BCA Verification Method FV1.	A test report on the proposed wall system is to be provided to the certifying Authority for review. The test report must conform that the external wall complies with the provisions of the performance requirement FP1.4.	Additional details required
F1.1	**Stormwater Drainage** Stormwater drainage must comply with AS/NZS 3500.3.	Hydraulic drawings and design certification to be provided at Construction Certificate stage.	Compliance readily achievable
F1.2	-	This clause has deliberately been left blank	-
F1.3	-	This clause has deliberately been left blank	-
F1.4	**External above ground membranes** External waterproofing membrane systems for roofs, decks, balconies and the like must comply with AS4654 Parts 1 and 2.	The standard membrane detailing for waterproofing including minimum upturn termination lengths, requirements for stepped balcony details at doorways and windows and provision of continuous grates where stepping does not occur.	Compliance readily achievable
F1.5	**Roof coverings**	Metal sheet roofing complying with AS 1562.1	Compliance readily achievable
F1.6	**Sarking**	Sarking type materials used for weatherproofing of roofs and walls must comply with AS/NZS 4200 Parts 1 and 2.	Compliance readily achievable
F1.7	**Water Proofing of Wet Areas in Buildings**	Water proofing of wet areas within a building to comply with AS 3740.	Compliance readily achievable
F1.8	-	This clause has deliberately been left blank	-
F1.9	**Damp-proofing** Moisture from the ground must be prevented from reaching the lowest timber element of the building should there be any and the walls above the lowest floor joists, the walls above the dam proof course and the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. Damp proof course must consist of a material that complies with AS/NZS 2904 or an impervious termite shield in accordance with AS 3660.1.	Details of the method of protection against moisture and other associated termite attack should be documented within the specifications and on the drawings proposed for construction (Termite protection is only applicable to and confirmation should be given for the use of timber products)	Additional details required
F1.10	**Damp-proofing of floors on the ground** A vapour barrier in accordance with AS2870 is to be provided beneath the basement floor slab.		Compliance Readily Achievable
F1.11	**Provision of floor wastes**		N/A
F1.12	**Subfloor ventilation**		N/A

Clause	Description	Comment	Status
F1.13	**Glazed assemblies** Windows, sliding doors with a frame, adjustable louvres, shopfronts and window walls with one piece framing in an external wall must comply with AS 2047 requirements for resistance to water penetration.		Compliance readily achievable
Part F2 – Sanitary and Other Facilities			
F2.1	**Facilities in residential buildings**		N/A
F2.2	**Calculation of number of occupants and fixtures**		Noted
F2.3	**Facilities in Class 3 to 9 buildings** Toilet facilities are required in appropriate numbers based on the number of persons accommodated.	The proposed number of occupants to utilise the proposed spaces have not been provided to SWP for consideration. Due to the use of the site guidance is to be provided from the client to SWP. In providing these details a thorough assessment can be undertaken to determine the number of sanitary facilities required as well as the required egress width from each portion of the building.	Does Not Comply
F2.4	**Facilities for Persons with Disabilities**	Accessible unisex toilets for people with a disability are required on each storey and at 50% of toilet, banks on any storey and accessible facilities are to be constructed to AS1428.1 – 2009. Each bank of toilets where there are more toilets in addition to an accessible unisex facility at the bank of toilets, a sanitary compartment suitable for use for a person with an ambulant disability in accordance with clause 16 of AS1428.1-2009	Compliance readily achievable
		Floor plans, internal elevations and relevant specifications of the proposed toilet blocks including accessible and ambulant facilities compliant against clauses 15 – 17 of AS1428.1-2009 are to be provided to the certifying Authority for review	Additional details required
F2.5	**Construction of sanitary compartments** Where clear space between closet pan and doorway is less than 1.2m, doors must open outwards, slide or be readily removable from outside.	All hinged doors that swing inward to sanitary facilities and do not comply with achieving a 1200mm clearance to pan are required to be installed with lift-off hinges 	Compliance readily achievable
F2.6	**Interpretation: Urinals and washbasins**	Each 600mm length of a continuous urinal trough is counted as 1 urinal.	Noted
F2.7	*(NSW variation – Deleted)*	-	-
F2.8	**Waste management**		N/A

Clause	Description	Comment	Status
F2.9	**Accessible adult change facilities**		N/A
Part F3 – Room Heights			
F3.1	**Height of rooms and other spaces** The following ceiling heights apply- **Class 5 & 7b portions:** • Corridor, passageway or the like – 2.1m; • General habitable areas – 2.4m; • Above a stairway, landing or the like – 2m measured vertically above nosing of stairway treads or floor surface of landing; and • Bathroom, sanitary compartment, car parking area store room or the like – 2.1m **Class 9b Portions:** • Where the floor accommodates less than 100 persons – 2.4m; and • Where the floor accommodates more than 100 persons – 2.7m	The project Architect is to provide detailed sections to the Certifying Authority for an assessment at Construction Certificate stage to verify compliance of the relevant ceiling heights. *Should any deviations occur within any of the rooms throughout the development a performance solution will need to be sought to demonstrate that the heights maintain adequate amenity against the relevant performance requirements (FP3.1)*	Additional Details Required
Part F4 – Light and Ventilation			
F4.1	**Provisions of natural light**		N/A
F4.2	**Methods and extent of natural lighting**		N/A
F4.3	**Natural light borrowed from adjoining room**		N/A
F4.4	**Artificial lighting** The artificial lighting system must comply with AS/NZS 1680.0.	Design details and certification from an electrical engineer is required	Compliance readily achievable
F4.5	**Ventilation of rooms** Ventilation shall be provided throughout the building in by means of natural ventilation complying with Clause F4.6 or mechanical ventilation complying with the requirements of AS1668.2 as required by Clause F4.5 of the BCA.	Mechanical details including drawings, specification and a design certificate are required to be provided to the Certifying Authority from the projects Mechanical Engineer	Additional Details Required
F4.6	**Natural ventilation**		N/A
F4.7	**Ventilation borrowed from adjoining room**		N/A
F4.8	**Restriction on location of sanitary compartments**	The accessible facility located within the community building is currently not documented with a door. The only location of a proposed door is to be located so that it opens directly into the reception area  Details of the amended design to ensure compliance is achieved with the provisions of clause F4.9 is to be provided to the certifying authority for review	Does Not Comply

Clause	Description	Comment	Status
F4.9	**Airlocks**	If a sanitary compartment opens directly into a space, which is occupied by more than one person one of the following is required to be installed / implemented: 3. Implementation of an airlock, hallway or other room with a floor area of not less than 1.1m^2 and fitted with self-closing doors; or 4. The sanitary compartment must be provided with mechanical exhaust ventilation and the doorway serving the room adequately screened from view	Noted
F4.10	-	This clause has intentionally been left blank	-
F4.11	**Carparks**		N/A
F4.12	**Kitchen local exhaust ventilation**		N/A
Part F5 – Sound Transmission and Insulation			N/A
Part F6 – Condensation management			N/A
Section G: Ancillary Provisions			
Part G1- Minor Structures and components			
G1.1	**Swimming pools**	The swimming pool act 1992 is not applicable to any premises occupied by the crown or by a public authority	N/A
G1.2	**Refrigerated chambers, strong rooms and vaults**		N/A
G1.3	**Outdoor play spaces**		N/A
NSW G1.101	**Provision for cleaning windows**		N/A
Part G2 - Boilers, pressure vessels, heating appliances, fire places, chimneys and flues			N/A
Part G3 - Atrium Construction			N/A
Part G4 - Construction in Alpine Areas			N/A
Part G5 - Construction in Bushfire Prone Areas			N/A
Part G6 – Occupiable outdoor areas			N/A
Section H: Special Use Buildings – Auditoriums, Public Halls, Public Transport Buildings			
Part H1 - Class 9b Buildings			
H1.1	**Application of Part**	Every enclosed class 9b is to comply with the provisions associated with clauses H1.4 & H1.7	Noted
H1.2	**Separation**		N/A
H1.3	**Proscenium wall construction**		N/A
H1.4	**Seating area** The gradient of the floor surface must not be steeper than 1 in 8, or the floor must be stepped so that—	Details of the seating / platform seating within the lecture theatre and external tiered seating are required to be provided to SWP for review	Additional details required

Clause	Description	Comment	Status
	I. a line joining the nosing's of consecutive steps does not exceed an angle of 30° to the horizontal; and II. the height of each step in the stepped floor is not more than 600 mm; and III. the height of any opening in such a step is not more than 125 mm Where an aisle divides the stepped floor and the difference in level between any 2 consecutive steps exceeds 230 mm but not 400 mm an intermediate step must be provided in the aisle. If the difference in level exceeds 400 mm then 2 equally spaced intermediate steps must be provided. The going of intermediate steps must be not less than 270 mm The clearance between rows of fixed seats used for viewing performing arts, sport or recreational activities must be not less than— I. 300 mm if the distance to an aisle is not more than 3.5 m; or II. 500 mm if the distance to an aisle is more than 3.5 m.	 	
H1.5	**Exit from stages**		N/A
H1.6	**Access to platforms and lofts**		N/A
H1.7	**Aisle lights**	In every enclosed Class 9b building, where in any part of the auditorium, the general lighting is dimmed or extinguished during public occupation and the floor is stepped or is inclined at a slope steeper than 1 in 12, aisle lights must be provided to illuminate the full length of the aisle and tread of each step. Details of the proposed aisle lighting are to be provided	Additional details required
Part H2 - Public Transport Buildings			N/A
Part H3 - Farm Building and Farm Sheds			N/A
NSW Section J: Energy Efficiency Energy Efficiency for buildings requires buildings to reduce greenhouse gas emissions by efficiently using energy. A building's services must have features that facilitate the efficient use of energy. The discipline of Energy Efficiency with the BCA has become a specialised field where compliance with BCA Section J is to be certified with the issue of a Certificate of Compliance – Design from the relevant Services Engineer/Consultant. The purpose of this section is to provide a brief explanation of which areas are to achieve compliance with BCA Section J – Energy Efficiency during design and construction. The BCA should be referenced for exact requirements, clarification and further explanation.			
Section J	**Energy efficiency measures** Energy efficiency measures are prescribed for the following building elements to limit energy consumption:- • Building fabric • External glazing • Building sealing • Air movement. • Air-conditioning and ventilation systems.	Compliance assumed, although further information is required to confirm compliance. A performance-based BCA JV3 assessment may be adopted for the project if compliance with BCA deemed to satisfy provisions are problematic.	Compliance readily achievable

Clause	Description	Comment	Status
	• Artificial lighting and power • Hot water supply • Access for maintenance		

NSW Subsection J(A) & NSW J(B) Energy Efficiency - Class 2 - 9 Buildings

Note: An assessment is to be carried out by an energy efficiency consultant on the proposed design and a report provided with the documentation for Construction Certificate considering climate zone 6.

An inspection and completion report will also be required upon completion from the suitably qualified consultant demonstrating compliance with their construction issued report.

15. Appendix A – Referenced Documentation

The following documentation was used in the preparation of this report:

Drawing No.	Title	Issue	Date	Drawn By
A0100	Site Plan	-	02/08/2019	Cox Architecture
A1100	Ground Floor – General Arrangement Plan	-	02/08/2019	Cox Architecture
A1200	Level 1 – General Arrangement Plan	-	02/08/2019	Cox Architecture
A2150	Groundskeepers shed and Storage	-	02/08/2019	Cox Architecture
A3010	Typical Elevations – East & West	-	02/08/2019	Cox Architecture
A3020	Typical Elevations – North & South	-	02/08/2019	Cox Architecture
A4100	Section – North South	-	02/08/2019	Cox Architecture
A4110	Section – East West	-	02/08/2019	Cox Architecture
A4120	Section – Community Building	-	02/08/2019	Cox Architecture
A4130	Site Section – East West	-	02/08/2019	Cox Architecture
A4140	Site Section – North South Junior oval and grounds maintenance	-	02/08/2019	Cox Architecture

16. Appendix B – Statutory Fire Safety Measures

Schedule of Statutory Fire Safety Measures

Measure	Standard of Performance
Automatic Fire Detection And Alarm System (Smoke Detection System To Automatically Shutdown Air-Handling System)	BCA2019 Clause 6 of Specification E2.2a and AS 1670.1 – 2018
Automatic Fire Detection And Alarm System (Smoke Detection System To Activate Smoke Exhaust System)	BCA2019 Clause 5 of Specification E2.2a and AS 1670.1 – 2018
Automatic Fire Suppression Systems (Sprinklers)	BCA2019 Specification E1.5 and AS 2118.1 – 2017
Building Occupant Warning System	BCA2019 Clause 7 of Specification E2.2a and AS 1670.1 – 2018
Emergency Lighting	BCA2019 Clause E4.2, E4.4 and AS/NZS 2293.1 – 2018
Exit Signs	BCA2019 Clause E4.5, NSW E4.6, E4.8 and AS/NZS 2293.1 – 2018
Fire Alarm Monitoring System	BCA2019 Clause 8 of Specification E2.2a and AS 1670.3 – 2018
Fire Doors	BCA2019 Specification C3.4 and AS/NZS 1905.1 – 2015
Fire Hydrants Systems	BCA2019 Clause E1.3 and AS 2419.1 – 2005
Hose Reel System	BCA2019 Clause E1.4 and AS 2441 – 2005
Lightweight Construction	BCA2019 Specifications C1.8, Clause A2.3 and AS 1530.4 – 2014
Mechanical Air Handling System *(Automatic Shut Down Of Air-Handling System)*	BCA2019 Clause E2.2 and AS 1668.1 – 2015
Mechanical Air Handling System *(Automatic Smoke Exhaust System)*	BCA2019 Specification E2.2b
Perimeter Vehicle Access For Emergency Vehicles	BCA2019 Clause C2.4
Portable Fire Extinguishers	BCA2019 Clause E1.6 and AS 2444 – 2001
Warning And Operational Signs	BCA2019 Clause D3.6

Note the fire safety schedule will need to be amended subject to the inclusion of a fire engineered performance solution.

17. Appendix C1.1 – Fire Rating Requirements

Type C Construction: FRL of Building Elements				
Building element	**Class of building - FRL:** (in minutes) *Structural adequacy/Integrity/Insulation*			
	2, 3 or 4 part	5, 9 or 7a	6	7b or 8
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is-				
less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3 m	-/-/-	60/60/60	60/60/60	60/60/60
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-
EXTERNAL COLUMN not incorporated in an external wall, where the distance from any fire-source feature to which it is exposed is-				
less than 1.5 m	90/ - / -	90/ - / -	90/ - / -	90/ - / -
1.5 or less than 3 m	- / - / -	60/ - / -	60/ - / -	60/ - / -
3 m or more	- / - / -	- / - / -	- / - / -	- / - / -
COMMON WALLS and FIRE WALLS	90/90/90	90/90/90	90/90/90	90/90/90
INTERNAL WALLS-				
Bounding public corridors, public lobbies and the like-				
	60/60/60	- / - / -	- / - / -	- / - / -
Between or bounding sole-occupancy units-				
	60/60/60	-/ - / -	-/ - / -	-/ - / -
Bounding a stair if required to be rated-				
	60/60/60	- / - / -	- / - / -	- / - / -
ROOFS	- / - / -	- / - / -	- / - / -	- / - / -

18. Appendix C1.10 – Early Fire Hazard Properties for Materials

Floor materials, floor coverings and wall and ceiling lining materials are required to comply with BCA prescribed fire hazard properties.

Floor Linings and Floor Coverings	
General Non Sprinklered Areas	Minimum 2.2 (or 4.5 for Class 3 areas and 9a patient care areas) kw/m^2 critical radiant heat flux and, a maximum smoke development rate of 750 percent minutes.
General Sprinklered Areas	Minimum 1.2(or 2.2 for Class 3, 9a patient care, and 9c residential use areas) kw/m^2 critical radiant heat flux
Fire Isolated Exits and Fire Control Rooms	Minimum 2.2/(or 4.5 for Class 3, 9a and 9c areas) kw/m^2 critical radiant heat flux
Lift Cars	Minimum 2.2 kw/m^2 critical radiant heat flux

Wall Linings and Ceiling Linings	
Generally	Variously Group 1,2, or 3 materials (more restrictive Group number for non-sprinklered areas, public corridors, health care corridors and other prescribed locations) when tested to AS/ISO 9705 or clause 3 of BCA Spec A2.4 and AS/NZ 3837
Fire Isolated Exits	Group 1 material when tested as above
Lift Cars	Group 1 or 2 materials when tested as above

In addition, in non-sprinklered areas, wall and ceiling linings must have a smoke growth rate index not more than 100 or an average specific extinction area less than 250m^2/g.

Other than above, construction materials generally need to achieve as1530.3 early fire hazard indices requirements as follows:	
Generally	Spread of flame Index not > 9 Smoke developed index not > 8
Sarking	Flammability Index not > 5
Fire Isolated Exits and Fire Control Rooms	Spread of Flame Index 0 Smoke Developed Index not > 2 Sarking Flammability 0
Non Fire Isolated Stairs & Escalators and Auditorium Fixed Seating	Spread of Flame Index 0 Smoke Developed Index not > 5
Lifts	To AS 1735.2
Air Ducts	To AS4254

19. Appendix C2.2 – Floor Areas and Volumes

Floor areas and volumes of each storey

Floor	Approx. Area (m^2)	Approx. Volume (m^3)	Comment
Ground	5,530m2	31,720m3	
Level 1	1,285m2	3,855m3	
Total Building	6,815m2	35,575m3	Within limitation of type A Construction. Due to flexibility in design the project is to be constructed to conform with the provisions of a Large Isolated Building in Type C construction.
Ground Floor – Maintenance & Storage Building	595m2		Within limitations of a Type C constructed building

20. Appendix D2.24 – Protection of Openable Windows

Building Use	Openable Windows		
	<2m above surface beneath	>2m above surface beneath	>4m above surface beneath
All other buildings	No restrictions	No restrictions	Barrier required • Min. 865mm above floor • No openings exceeding 125mm • No climbable elements between 150-760mm above floor

21. Appendix D3 – Significant Accessibility Requirements

Access for wheelchair users and people with disabilities generally must be to AS1428.1-2009. Principle requirements are:

- Continuous accessible paths of travel throughout
- Minimum 1m wide travel paths with maximum 3-5mm joints, lips, level changes etc.
- No deep pile carpets or grates with large slots.
- Walls or 75-150mm kerbs at travel path sides or if level change occurs to cause a wheelchair hazard.
- 1.8m wide x 2m long wheelchair passing spaces at 20m intervals in passageways where a direct line of sight is not available.
- Turning spaces at 20m intervals and within 2m of dead end access ways. 1.5m x 1.5m 90 deg turning spaces (with splayed internal corner) and 1.54m x 2.07m long 180 deg turning spaces are required including at dead ends in passageways.
- Step ramps, kerb ramps and threshold ramps as prescribed.
- 1:14 maximum ramps with 9m between landings.
- 1.9m x 1 in 10 (maximum 190mm rise) step ramps
- 1.52m x 1 in 8 (maximum 190mm rise) kerb ramps.
- 30-50mm handrails with 300mm extensions and curls and 50mm clearances on both sides of steps, ramps, etc.
- 850mm clear width doors with 340 - 900mm latch side clearances and 1220-1670mm approach clearances depending on arrangements.
- Stairs and ramps set back from building lines and corridors to allow space for handrail extensions and TGSIs.
- Decals to glazing.
- 900-1100mm door hardware height.
- Lever handle hardware with low opening forces.
- Landings at doorways, direction changes and at intervals on ramps and inclined walkways.
- Walkways with colour contrast borders.
- Flat even surfaces.
- Colour contrasted hand rails and door frames.
- "D" pull handles to doors.
- Continuous protected paths from disabled persons' car spaces to lifts, access points, etc.
- Ambulant disabled persons' toilets with grab rails and outward swinging doors or longer cubicles.
- Prescribed types of water entry arrangements for swimming pools depending on pool size.
- Non fire enclosed stairs with opaque risers.
- Fire stairs and non-fire enclosed stairs with colour contrasting nosing strips.
- All switches and controls 900-1100mm above floor level.

The following general requirements apply to accessible toilets:

- Unisex facility.
- ~1.9 x 2.7m or 2.3 x 2.4m minimum room dimensions depending on arrangements. (~2.2m x 1.6m if AS1428.1-2001 concession applies).
- 30-40mm grab rails with 50-60mm clearances.
- Doors with appropriate clearances and circulation spaces and able to be operated externally in emergencies
- Washbasins with clearances as required.
- Shielded hot water pipes.
- Mirror, shelf, dispensers and coat hooks.
- Mirrored layout for alternative facilities

22. Appendix F2.3 – Requirements for Sanitary Facilities

The status of sanitary facilities required by Part F2 of the BCA are set out below:

Class	Use	Occupant Numbers			WC Required / Provided		Urinal Required / Provided		Basin Required / Provided	
		Total								
			Male							
			Female				N/A			
			Unisex Disabled				N/A			
			Male							
			Female				N/A			
			Unisex Disabled				N/A			
	TOTAL		**Male**							
			Female				**N/A**			
			Unisex Disabled				**N/A**			

Notes:

1. A common unisex accessible facility may be counted once for both male and female facilities in accordance with Clause F2.2(c) of the BCA;
2. Staff and patrons are permitted to share the same facilities in accordance with Clause F2.3(d) of the BCA;
3. At least one ambulant sanitary compartment must be provided within each the male and female facilities complying with Section 16 of AS1428.1 – 2009.
4. A WC is able to be used in place of a urinal.

STEVE WATSON
& PARTNERS