STEVE WATSON
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St. Peters Anglican College – Sports and Recreation Centre, Community Hub, Junior Classroom and Extension to Performing Arts Centre

BCA Assessment Report

Report 2022/0949 R1.0

Prepared for Colliers.
July 2022

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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

An assessment of the design of the proposed design of the proposed design of the proposed Sports and Recreation Centre, Community Hub, Junior Classroom and Extension to Performing Arts Centre at St Peter's Anglican College has been undertaken against the Deemed-to-Satisfy (DTS) provisions of the relevant sections of the Building Code of Australia and the applicable Building Regulations.

This report details the BCA compliance items to be addressed prior to the issue of the Construction Certificate.

Summary of BCA Parameters:

P10 – Proposed Sports & Recreation Centre

Building Use:	School Sports Hall
Class of Occupancy	Class 9b
Type of Construction Required	Type B
Rise Storeys:	2
Number of Storeys:	2
Effective Height:	3.2m

P7 – Community Hub

Building Use:	School office
Class of Occupancy	Class 5
Type of Construction Required	Type C
Rise Storeys:	1
Number of Storeys:	1
Effective Height:	N/A

P5 – Junior School Classroom

Building Use:	School teaching
Class of Occupancy	Class 9b
Type of Construction Required	Type C
Rise Storeys:	1
Number of Storeys:	1
Effective Height:	N/A

E10 – Cultural Centre Extension

Building Use:	School Hall/Theatre
Class of Occupancy	Class 9b
Type of Construction Required	Type C
Rise Storeys:	1
Number of Storeys:	1
Effective Height:	N/A

Subject to resolution of BCA items identified in Section 10.1 of this report, 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 Amendment 1.

Further BCA review will be required for the Construction Certificate application 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” in the *“Status*” column of the assessment in Section 14 of the report and should be resolved prior to construction.

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GLOSSARY

Building Code of Australia - BCA, National Construction Code - NCC

Deemed-to-Satisfy - Dts

Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 - EPAR (DCFS)

Environmental Planning and Assessment Act 1979 No 203 - EPAA

Environmental Planning and Assessment Regulation 2021 - EPAR

1. Introduction

This report presents the findings of a preliminary assessment undertaken of the proposed design of the proposed Sports and Recreation Centre, Community Hub, Junior Classroom and Extension to Performing Arts Centre at St Peter's Anglican College against the Deemed-to-Satisfy (DtS) provisions of Building Code of Australia BCA 2019 Amendment 1.

It has been prepared by Steve Watson and Partners for Colliers.

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, construction certification to be issued under Part 6 of the NSW Environmental Planning and Assessment Act 1979 No 203, Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 and Environmental Planning and Assessment Regulation 2021.

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
- The BCA report and associated compliance advice is not intended or permitted to be relied on by any other party with respect to their obligations to ensure compliance including but not limited to the making of a compliance declaration under the NSW Design and Building Professionals Act.

3.3 Certification Works

This report is provided as part of SWP's contracted scope for this project, which is "Certification Work", as defined in the Building and Development Certifiers Regulation 2020. Due to the strict requirements and limits in terms of conflicts of interest imposed under that regulation, SWP cannot undertake any services other than Certification Work services on this project. Hence, the contents of this report, and any associated correspondence, are provided in the context of a preliminary certification assessment of plans, and may not be construed to constitute involvement in building design, the preparation of plans and specifications, the provision of advice on how to amend a plan or specification to ensure that the aspect will comply with legislative or code requirements, or to breach any other restriction or limitation imposed under the conflict of interest provisions of that or any other legislation.

4. National Construction Code BCA 2019 Amendment 1– 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
Alts and adds – no change in use	EPAR (DCFS) S14(3)	No reduction in the level of safety permitted
New Work	EPAR (DCFS) S19	All new works must comply
Access to premises	Disability (Access to Premises — Buildings) Standards 2010	Upgrade of the "Affected Part" to provide access for people with disabilities

6.1 New Work

Section 19 of the EPAR (DCFS) 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.

6.2 Alterations and additions – fire protection and structural capacity

Section 14(3) of the EPAR (DCFS) prevents a certifying authority from issuing a construction certificate if the proposed new work will result in a reduction to the fire protection and structural capacity of the building.

6.3 Access to premises

The Disability (Access to Premises – Buildings) Standards came into force via BCA2011 throughout Australia on 01 May 2011, and with it introduced a higher standard of access to that required by previous versions of the BCA. In prescribed circumstances, the legislation requires upgrade of access and facilities for persons with disabilities when building work is proposed. In particular, unless works are undertaken by a lessee who does not lease the entire building, proposed building work anywhere in the building could trigger a need for enhanced access at the main building pedestrian entry and from that entry to all areas of the building that are subject to the building work.

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**);
8. In the event of alterations and extensions to an existing building, a base building non-compliance may exist which is not exacerbated by the new works. **(No Reduction in Safety);**
9. In the event of alterations and extensions to an existing building, a base building non-compliance may exist which is being exacerbated by the new works. **(Reduction in Safety)**;

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 proposed development involves the construction of the following:

- New two (2) storey Sports and Recreation Centre building
- New one (1) storey Community Hub building
- New one (1) storey Junior School Classroom
- Single storey extension to the existing Cultural Centre building

9. Assessment Data Summary

The following basic assessment data has been drawn from the provisions of the BCA 2019 Amendment 1.

9.1 Assumptions

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

1. Unless specifically noted in each particular BCA clause, each clause of this report applies to all/each of the buildings.
2. The buildings have been assessed on the assumption that the proposed use is for school purposes. Any multiple use scenarios where the buildings are proposed to be used for a community use will need to be confirmed with SWP. Further assessment will be needed which may trigger additional BCA requirements.

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.

1. The performing arts building has not been considered an 'Entertainment Venue' for purposes of this assessment. Confirmation of item 2 above will be required.

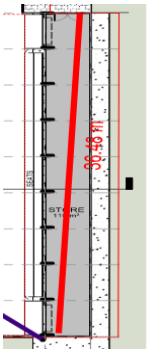
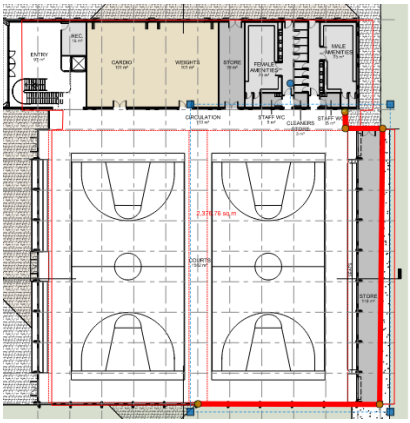
10. Issues Requiring Resolution

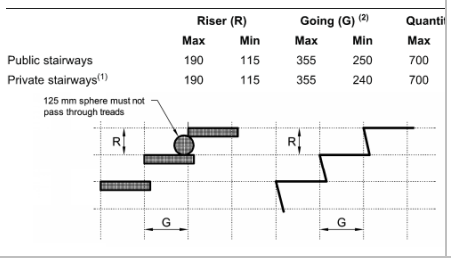
10.1 Issues requiring amendments to plans, additional details or documentation.

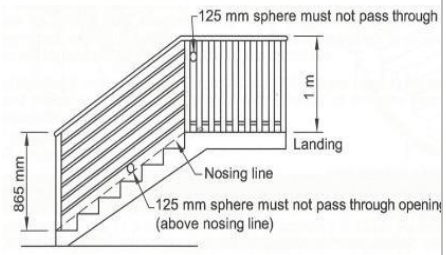
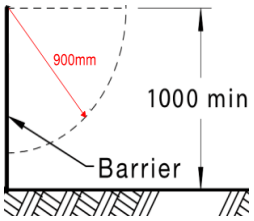
The following issues either need to be resolved or require further details and/or documentation to be provided to ensure compliance before issuing the Construction Certificate.

Item	DTS Clause	Description	Requirement to Satisfy BCA
1.	**C1.1, Spec C1.1**	**Type of construction required** The following type of constructions is required: **Type B Construction** **P10** - Proposed Sports & Recreation Centre **Type C Construction** **P7** – Community Hub **P5** – Junior School Classroom **E10** – Cultural Centre Extension	The following requirements apply: **For Type B construction:** **P10** - Proposed Sports & Recreation Centre • The floor between ground and level 1 requires a fire rating in accordance with one of three options listed under Clause 4.1(i) of Specification C1.1. • Loadbearing internal walls are required to be concrete or masonry. • Loadbearing internal walls and columns require a 120/--/-- FRL. • Loadbearing internal columns and/or walls on Level 1 do not require an FRL. • Note: External loadbearing walls and columns greater than 18m from another building onsite do not require an FRL. No FRL's required for Type C construction: **P7** – Community Hub **P5** – Junior School Classroom **E10** – Cultural Centre Extension Details of the proposed construction and how it will achieve the required FRL is to be provided. Certification from a structural engineer will be required for FRL's of all structural elements including existing structure. Details of the proposed method of fire separation at the junction of floors and the external wall and the junction of fire rated internal walls and the external wall is be provided for assessment.
2.	**C1.9**	**Non-combustible building elements** In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible: i. External walls and common walls, including all components incorporated	Applies to **P10 - Proposed Sports & Recreation Centre** Facade engineer or Architect to make provisions for this requirement in the design. A detailed review of the external wall materials must be undertaken to ensure that there are no combustible materials and non-complaint claddings have not been nominated that could increase the risk of fire spread via the external façade. All external wall materials are to be documented for the Construction Certificate including details of compliance with C1.9 requirements including test

Item	DTS Clause	Description	Requirement to Satisfy BCA
		within them including façade covering, framing and insulation; ii. The flooring and floor framing of lift pits; iii. Non-loadbearing internal walls where they are required to be fire-resisting; iv. Non-loadbearing shaft being a lift, ventilating, garbage or similar shaft. The following materials may be used where non-combustible materials are required:- • Plasterboard. • Perforated gypsum. • Fibrous-plaster sheeting to AS 2185. • Fibre-reinforced cement sheeting. • Pre-finished metal sheeting having a combustible surface finish not exceeding 1mm thickness and where the spread-of-flame index of the product is not greater than 0. • Sarking-type materials that do not exceed 1mm thickness and have a flammability index not greater than 5. • Bonded laminated materials where each lamina, including any core, is not combustible and each adhesive layer does not exceed 1mm thickness and the total thickness of the adhesive layers does not exceed 2mm and the spread of flame index and smoke development index of the bonded laminated material as a whole do not exceed 0 and 3 respectively. • Any product as determined by testing to AS 1530.1 • An appropriately BCA accredited product or system.	reports to AA 1530.1 and CodeMark certification where applicable. **The proposed Polycarbonate Wall Cladding will require a test certificate confirming it being a material deemed not combustible.**
3.	**C1.14**	**Ancillary elements** An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it is non-combustible or as specified under this clause.	Applies to **P10 - Proposed Sports & Recreation Centre** Ancillary elements (Signage, awnings canopies) affixed to the external wall of the building must meet one of the following requirements: • be constructed wholly of non-combustible materials; **Or** • meet relevant requirements of Spec C1.10 as for an internal element; ***and*** • not serve an exit, where it would render the exits unusable. Details of compliance to be provided for the Construction Certificate.

Item	DTS Clause	Description	Requirement to Satisfy BCA
4.	**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.	Applies to **P10 - Proposed Sports & Recreation Centre** The following areas have been identified with distances exceeding 20m to a point of choice: 1. Level 1 up to 43m – Redesign required due to excessive distance.  2. Ground floor storage up to 37m – Redesign required due to excessive distance. 
5.	**D1.5**	**Distance between alternative exits** The following travel distance limits apply: • ≤ 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.	Applies to **P10 - Proposed Sports & Recreation Centre** The ground floor courts exceed 60m between alternative exits. An additional exit is to be located on the façade area highlighted in red to allow complying distances between alternative exits. 

Item	DTS Clause	Description	Requirement to Satisfy BCA
6.	**D1.6**	**Dimensions of exits and paths of travel to exits**	Refer to Clause D1.13 regarding design population queries. An aggregate egress width assessment for each building is to be undertaken once consensus on population numbers is agreed. To be completed during further design development stages and to be confirmed compliant prior to the Construction Certificate.
7.	**D1.13**	**Number of persons accommodated**	Anglican College to provide a design population breakdown inclusive of intended students and staff for each building. Any proposed approved community use for the buildings is to be advised including any forecast population numbers.
8.	**D2.13**	**Going and risers** To provide safe passage, stairways must comply with the following: • minimum 2 risers / maximum 18 in each flight • risers 115mm min 190 mm max - going 250mm min 355mm max - 2R+G 550mm min 700mm max. • 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. • 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. • in a Class 9b building, not more than 36 risers in consecutive flights without a change in direction of at least 30°. • in the case of a required stairway, no winders in lieu of a landing.  	Plans detailing stair compliance is to be provided with the Construction Certificate.

Item	DTS Clause	Description	Requirement to Satisfy BCA
9.	**D2.14**	**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: **Application** / **Dry Surface Conditions** / **Wet Sur Conditi** 1:14 or steeper ramps — P4 or R11 — P5 or R Ramps of 1:14 to 1:20 — P3 or R10 — P4 or R Tread or Landing Surface — P3 or R10 — P4 or R Nosing Strip or Landing Strip — P3 — P4	Plans detailing stair compliance is to be provided with the Construction Certificate.
10.	**D2.16**	**Barriers to prevent falls** Requirements apply to the provision and design of barriers at locations where a person could fall 1m or more. Generally, 125mm maximum gap size limits apply between balusters or rails and a 1m minimum height applies, with alternate dimensions permitted in fire isolated stairs and industrial areas.  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. 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 below 	Further details of balustrades will need to be provided to confirm compliance for the Construction Certificate.

Item	DTS Clause	Description	Requirement to Satisfy BCA
11.	**D2.17**	**Handrails** Handrails to exits including parts of fire isolated exit serving an area required to be accessible to people with disabilities must comply with Clause 12 of AS1428.1, viz: • 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 • A second handrail for primary school use is required at a height between 665mm and 750mm.	Handrail details to be confirmed by the access consultant Handrails are to be provided in compliance with Clause D3.3 and include the following- **Non-Fire Isolated Stairways and Ramps** 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
12.	**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.	**Applies to all buildings.** All exit doors from each building are required to swing outwards in the direction of egress. Currently the doors are shown as swinging inwards. Redesign required.
13.	**Part D3**	**Requirements for access for people with disabilities**	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.
14.	**E1.3**	**Fire hydrants** The building requires a fire hydrant system in accordance with AS 2419.1 – 2005.	Applies to **P10 - Proposed Sports & Recreation Centre, P5 – Junior School Classroom & E10 – Cultural Centre Extension** Hydraulic engineer with FPAS accreditation for Fire Hydrant system design is to provide drawings and design certification for the Construction Certificate detailing compliance with Clause E1.3 of the BCA and AS 2419.1 - 2005. Particular compliance items to be detailed include: • Confirmation of fire brigade booster assembly location (if required) • Details of any requirement for a hydrant pump. • Proposed location of fire hydrants. • Utilisation of any existing site wide fire hydrant infrastructure.
15.	**E1.4**	**Fire hose reels** Fire hose reel coverage to AS2441 - 2005. Note: Fire hose reels not required to: - • Class 5 buildings; • Classrooms and associated corridors in Class 9b primary and secondary schools	Applies to **P10 - Proposed Sports & Recreation Centre, P5 – Junior School Classroom & E10 – Cultural Centre Extension** Hydraulic engineer with FPAS accreditation for Fire Hose Reels system design is to provide drawings and design certification for the Construction Certificate detailing compliance with Clause E1.4 of the BCA and

Item	DTS Clause	Description	Requirement to Satisfy BCA
			AS 2441 - 2005.
16.	**E1.6**	**Portable fire extinguishers** Portable Fire Extinguishers are required be installed to Table E1.6 and AS 2444 requirements, at: • Throughout Class 5 buildings • emergency services switchboards • kitchens • flammable liquid stores • where fire hose reels are not installed.	Details of portable fire extinguisher selections and locations are to be provided of the Construction Certificate.
17.	**E2.2**	**Smoke hazard management - General requirements** NSW Variation Automatic shutdown of any air-handling system is required to all Class 9b assembly buildings. Automatic shutdown is required to be activated by a smoke detection system in accordance with Clause 6 of Specification E2.2a. Note: Automatic shutdown is not required to air-handling systems that consist of – • non-ducted individual rooms units with a capacity not more than 1000L/s; and • Miscellaneous exhaust air systems in accordance with Sections 5 and 6 of AS 1668.1.	Applies to **P10 - Proposed Sports & Recreation Centre, P5 – Junior School Classroom & E10 – Cultural Centre Extension** The mechanical engineer is to confirm whether air-handling systems other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1—2015 are proposed. If so, these air-handling systems are to be provided with automatic shutdown capability that is activated by smoke detectors complying with Clause 6 of Specification E2.2a and the following is to be provided for review: • Fire services plans and associated design certificate that has been prepared by an electrical engineer. Mechanical plans and associated design certificate that has been prepared by a mechanical engineer.

18.	**E4.2**	**Emergency lighting requirements**
		Emergency lighting is to be provided in:
		• 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 6 or 9b building if:
		  • the floor area is more than 300m^2;
		  • or if any point on the floor is more than 20m from the nearest doorway
			Electrical drawings and design certification from an electrical engineer is to be provided for the Construction Certificate.

Item	DTS Clause	Description	Requirement to Satisfy BCA
		opening directly to the road or open space; or • if the egress involves a vertical rise within the building of more than 1.5m.	
19.	**E4.5**	**Exit signs** Exit signs must be clearly visible to 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. 3. A horizontal exit 4. A door serving as or forming part of a required exit in a storey required to be provided with emergency lighting.	Electrical drawings and design certification from an electrical engineer is to be provided for the Construction Certificate.
20.	**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	Electrical drawings and design certification from an electrical engineer is to be provided for the Construction Certificate.
21.	**F1.0**	**Water proofing of external walls** Weatherproofing of an external wall must comply with Performance Requirement FP1.4, which requires that an external wall (including openings around windows and doors) must prevent the penetration of water that could cause— • unhealthy of dangerous conditions, or loss of amenity for occupants • undue dampness or deterioration of building elements. Alternatively, Verification Method FV1 can be used to demonstrate compliance with FP1.4 for weatherproofing of an external wall. **Note 1:** There is no deemed-to-satisfy solution for external weatherproofing for external walls in Class 2-9 buildings and all design are performance solutions.	A performance solution report prepared by the architect or façade engineer is to be provided that— • states the façade complies with performance requirement FP1.4 • lists the proposed external wall systems and includes any supporting documentation (e.g. CodeMark Certificate). Alternatively, a test report for each proposed external wall system is to be provided that demonstrates compliance with verification method FV1.1.
22.	**F2.3**	**Facilities in Class 3 to 9 buildings** Toilet facilities are required in appropriate numbers based on the number of persons accommodated.	Refer to Clause D1.13 regarding design population queries. A sanitary facility assessment for each building is to be undertaken once consensus on population numbers is agreed. To be completed during further design development stages and to be confirmed compliant prior to the Construction Certificate.

Item	DTS Clause	Description	Requirement to Satisfy BCA
23.	**F2.4**	**Accessible sanitary facilities** Accessible unisex toilets for people with a disability are required on each storey and at 50% of toilet banks on any storey.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.
24.	**F4.2**	**Methods and extent of natural lighting** Natural light is required to be provided to 10% of the floor area of all general purpose classrooms through windows or 3% of the floor area from roof lights. Windows required for natural light that face the boundary or a wall of the same building are to be a least 1m in distance or 50% of the square root of the exterior height of the wall in which the window in located, which is greater.	A window schedule is to be submitted for review demonstrating natural provisions to all classrooms.
25.	**F4.5**	**Ventilation of rooms** *(NSW variation for Public Health Regulation)* 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.	Confirmation of whether mechanical or natural ventilation is proposed to the building. If mechanical ventilation is proposed, design details and certification from a mechanical engineer is required.
26.	**NSW G5.2**	**Protection** In a designated bushfire prone area, a Class 2 building, a Class 3 building, a Class 4 part of a building or a Class 9 building that is a special fire protection purpose or a Class 10a building or deck associated with such a building or part, mustcomply with the following— (a) AS 3959 except— (i) as amended by Planning for Bush Fire Protection; and (ii)for Section 9 Construction for Bushfire Attack Level FZ (BAL-FZ). Buildings subject to BAL-FZ must complywith specific conditions of development consent for construction at this level; or (b) the requirements of (a) above as modified by the development consent following consultation with the NSW RuralFire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or (c) the requirements of (a) above as modified by development consent with a bushfire safety authority issued under Section 100B of the Rural Fire Act 1987 for the purposes of integrated development.	Bushfire Safety report to be provided confirming compliance.

Item	DTS Clause	Description	Requirement to Satisfy BCA
27.	**H1.1**	**Application of Part** *(NSW variation for Entertainment Venues)* Applies every enclosed Class 9b building, which is not an entertainment venue which— I. is a school assembly, church or community hall with a stage and any backstage area with a total floor area of more than 300m^2; or II. otherwise, has a stage and any backstage area with a total floor area of more than 200m^2; or III. has a stage with an associated rigging loft. Notwithstanding the above- I. H1.4 applies to every open or enclosed Class 9b building; and H1.7 applies to every enclosed Class 9b building.	Confirmation as to whether the stage has a rigging loft is to be provided. If so, Part H1 will apply and will need the assessed for BCA compliance.
28.	**H101.1**	**Application of Part** This Part applies to every entertainment venue as described in the Environmental Planning and Assessment Regulation 2000.	Entertainment Venue is defined as a building used as a cinema, theatre or concert hall or an indoor sports stadium. No assessment has been undertaken to NSW H101 requirements on the basis the buildings are not an 'entertainment venue'. If the cultural centre is proposed to be used as public theatre or concert hall then it will be considered an 'Entertainment Venue' and H101 provisions will apply.
29.	**Section J**	**Energy Efficiency requirements** 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. • Artificial lighting and power • Hot water supply	Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.

10.2 Performance solutions required.

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

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
Nil at this stage				

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 Section 26 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 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 (DCFS) 2021, EPAR 2021 and the BCA 2019 Amendment 1 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 Amendment 1 – Clause by Clause Assessment

Clause	Description	Comment	Status
BCA Version			
BCA 2019 Amendment 1	**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 Amendment 1. 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.	Noted
Part A6	**Classification and usage** Usage on each level of the building is as follows: **P10 – Proposed Sports & Recreation Centre** **LEVEL** / **USE** / **CLASS** Ground / School/Sports Hall / 9b Level 1 / School/Sports Hall / 9b **P7 – Community Hub** **LEVEL** / **USE** / **CLASS** Ground / School office / 5 **P5 – Junior School Classroom** **LEVEL** / **USE** / **CLASS** Ground / School teaching / 9b **E10 – Cultural Centre Extension** **LEVEL** / **USE** / **CLASS** Ground / School Hall/Theatre / 9b *Subject to confirmation of 'Entertainment Venue'	Building legend: **P10** - Proposed Sports & Recreation Centre **P7** – Community Hub **P5** – Junior School Classroom **E10** – Cultural Centre Extension	Noted
Part A7	**United buildings**		N/A

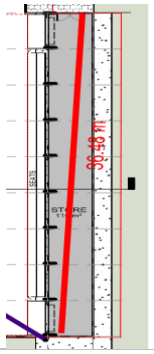
Clause	Description	Comment	Status
Section B: Structure			
B1.1	**Resistance to actions** The resistance of the building must be greater than the most critical action effect resulting from different combinations of actions	Certification from a qualified structural engineer will need to be provided at 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	-
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	Compliance Readily Achievable
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 buildings importance levels are to be determined 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** The following type of constructions is required: **Type B Construction** **P10** - Proposed Sports & Recreation Centre **Type C Construction** **P7** – Community Hub **P5** – Junior School Classroom **E10** – Cultural Centre Extension	The following requirements apply: **For Type B construction:** **P10** - Proposed Sports & Recreation Centre • The floor between ground and level 1 requires a fire rating in accordance with one of three options listed under Clause 4.1(i) of Specification C1.1. • Loadbearing internal walls are required to be concrete or masonry. • Loadbearing internal walls and columns require a 120/--/-- FRL. • Loadbearing internal columns and/or walls on Level 1 do not require an FRL. • Note: External loadbearing walls and columns greater than 18m from	Additional Details Required

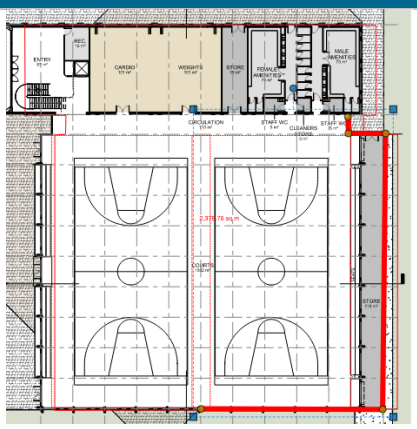
Clause	Description	Comment	Status
		another building onsite do not require an FRL. No FRL's required for Type C construction: **P7** – Community Hub **P5** – Junior School Classroom **E10** – Cultural Centre Extension Details of the proposed construction and how it will achieve the required FRL is to be provided. Certification from a structural engineer will be required for FRL's of all structural elements including existing structure. Details of the proposed method of fire separation at the junction of floors and the external wall and the junction of fire rated internal walls and the external wall is be provided for assessment.	
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.	Applies to **P10 - Proposed Sports & Recreation Centre** The following parameters apply: Rise in storeys: 2 storeys Effective Height: 3.2m	Noted
C1.3	**Buildings of multiple classification**		N/A
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 any proposed lightweight fire rated systems to be installed must be in accordance with a tested prototype.	Compliance Readily Achievable

Clause	Description	Comment	Status
C1.9	**Non-combustible building elements** In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible: v. External walls and common walls, including all components incorporated within them including façade covering, framing and insulation; vi. The flooring and floor framing of lift pits; vii. Non-loadbearing internal walls where they are required to be fire-resisting; viii. Non-loadbearing shaft being a lift, ventilating, garbage or similar shaft. The following materials may be used where non-combustible materials are required:- • Plasterboard. • Perforated gypsum. • Fibrous-plaster sheeting to AS 2185. • Fibre-reinforced cement sheeting. • Pre-finished metal sheeting having a combustible surface finish not exceeding 1mm thickness and where the spread-of-flame index of the product is not greater than 0. • Sarking-type materials that do not exceed 1mm thickness and have a flammability index not greater than 5. • Bonded laminated materials where each lamina, including any core, is not combustible and each adhesive layer does not exceed 1mm thickness and the total thickness of the adhesive layers does not exceed 2mm and the spread of flame index and smoke development index of the bonded laminated material as a whole do not exceed 0 and 3 respectively. • Any product as determined by testing to AS 1530.1 • An appropriately BCA accredited product or system.	Applies to **P10 - Proposed Sports & Recreation Centre** Facade engineer or Architect to make provisions for this requirement in the design. A detailed review of the external wall materials must be undertaken to ensure that there are no combustible materials and non-complaint claddings have not been nominated that could increase the risk of fire spread via the external façade. All external wall materials are to documented for the Construction Certificate including details of compliance with C1.9 requirements including test reports to AA 1530.1 and CodeMark certification where applicable. **The proposed Polycarbonate Wall Cladding will require a test certificate confirming it being a material deemed not combustible.**	Additional Details Required
C1.10	**Fire hazard properties** *(NSW variation for Entertainment Venues)* Floor materials, floor coverings and wall and ceiling lining materials need to comply with prescribed fire hazard properties. Refer to Appendix C1.10 & compliance with AS5637.1-2015	Compliance assumed and will require verification test data for all timber and other combustible linings and materials, including: • Carpets • Vinyls (walling and flooring) • Timber flooring and wall linings • Veneered wall panelling • Spray-on insulation material • Other combustible finishes	Compliance Readily Achievable
C1.11	**Performance of external walls in fire**		N/A

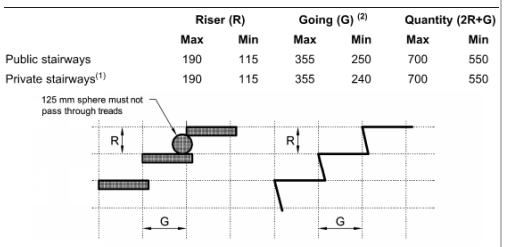
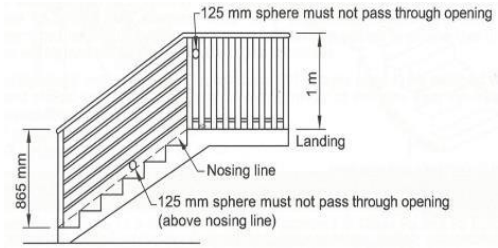
Clause	Description	Comment	Status
C1.12		This Clause has deliberately been left blank	Noted
C1.13	**Fire-protected timber: Concession**		N/A
C1.14	**Ancillary elements** An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it is non-combustible or as specified under this clause.	Applies to **P10 - Proposed Sports & Recreation Centre** Ancillary elements (Signage, awnings canopies) affixed to the external wall of the building must meet one of the following requirements: • be constructed wholly of non-combustible materials; **Or** • meet relevant requirements of Spec C1.10 as for an internal element; ***and*** • not serve an exit, where it would render the exits unusable. Details of compliance to be provided for the Construction Certificate.	Additional Details Required
Part C2 – Compartmentation and Separation			
C2.1	**Application of Part**		Applicable
C2.2	**General floor area and volume limitations**: **(Type B construction)** The floor area and volume limitations are: Class 9b: 5,500m^2 and 33,000m^3 **(Type C construction)** The floor area and volume limitations are: Class 5 & 9b: 3,000m^2 and 18,000m^3	Refer to Appendix C2.2 of this report for floor areas and volumes. All buildings comply with floor area and volume limitations.	Complies
C2.3	**Large isolated buildings**		N/A
C2.4	**Requirements for open space and vehicular access**		N/A
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**		N/A
C2.10	**Separation of lift shafts**		N/A
C2.11	**Stairways and lifts in one shaft**		N/A
C2.12	**Separation of equipment**	No rooms requiring separation shown on plan.	N/A
C2.13	**Electricity supply system**		N/A
C2.14	**Public corridors in Class 2 & 3 buildings**		N/A
Part C3 – Protection of Openings			
C3.1	**Application of Part**		Applicable

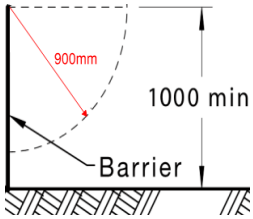
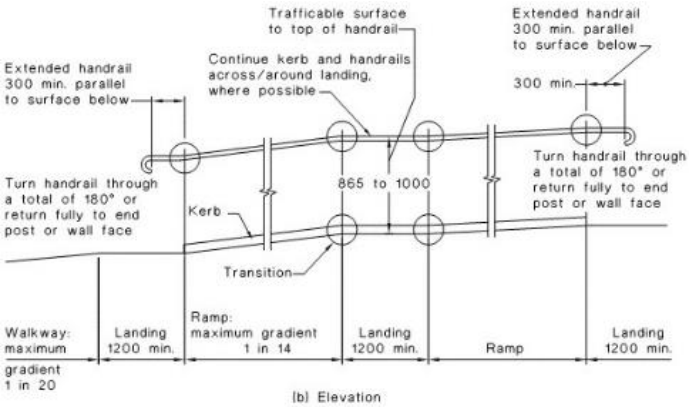
Clause	Description	Comment	Status
C3.2	**Protection of openings in external walls**	No external walls requiring an FRL are required.	N/A
C3.3	**Separation of external walls and associated openings in different fire compartments**		N/A
C3.4	**Acceptable method of protection**		N/A
C3.5	**Doorways in fire 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** Services passing through floors are to be placed within fire resisting shafts or in accordance with Clause C3.15.	Applies to **P10 - Proposed Sports & Recreation Centre** Services penetrations through the fire rated floor separating ground and first floor are to be contained within a fire rated shaft with the same FRL of the floor or services protected in accordance with C3.15.	Compliance Readily Achievable
C3.13	**Openings in shafts**		N/A
C3.14	-	This clause has deliberately been left blank	-
C3.15	**Openings for service installations** Services penetrations through a building elements (other than an external wall or roof) that are required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire, must comply with a tested system or with Specification C3.15 Methods and materials used are to be identical to tested prototypes and in accordance with AS4072.1 and AS1530.4, and having achieved the required FRL or resistance to the incipient spread of fire or other specified method. , or differ from a prototype assesmbly of the service, building element and protection method in accordance with Section 4 of AS 4072.1 Ventilation and air-conditioning systems are to be installed in accordance with AS/NZS 1668.1.	Applies to **P10 - Proposed Sports & Recreation Centre** Any system used must be a certified system and installed in accordance with the tested method. Specifications of the methods of fire sealing need to be provided.	Compliance Readily Achievable
C3.16	**Construction Joints** Construction joints in elements required to have a fire resistance with respect to integrity and insulation must be protected.	Construction joints are to be installed in accordance with a tested prototype in accordance with AS1530.4.	Compliance Readily Achievable
C3.17	**Columns protected with lightweight construction to achieve an FRL**	Columns must be protected in accordance with the identical tested prototype.	Compliance Readily Achievable

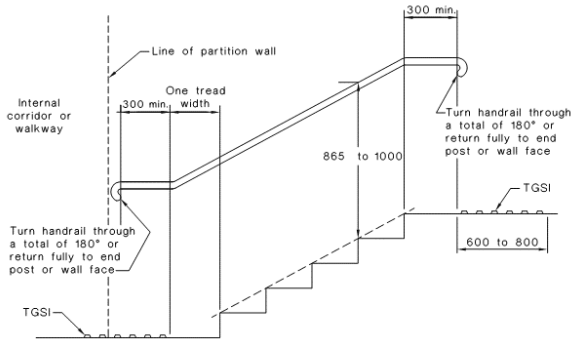
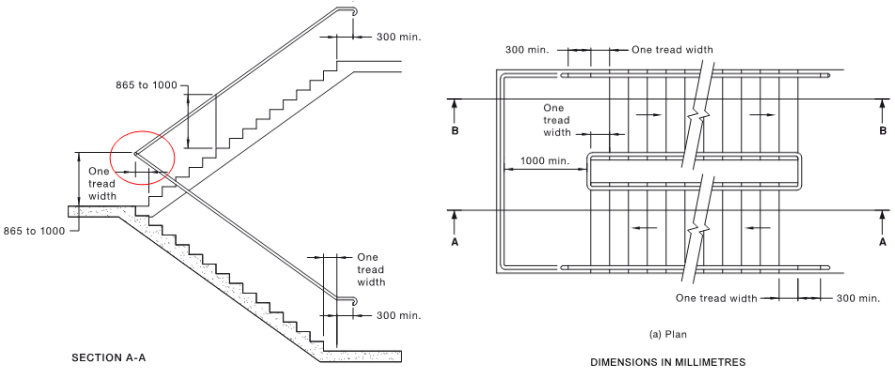
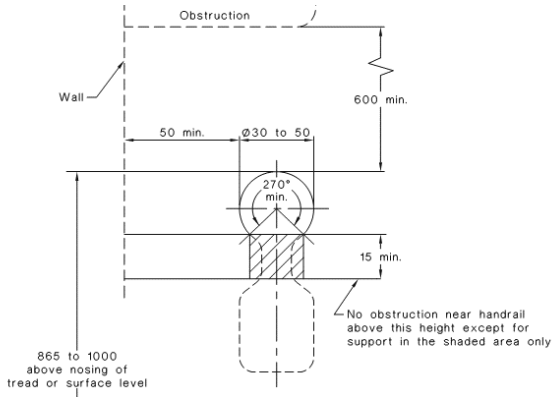
Clause	Description	Comment	Status
Section D: Access and Egress			
Part D1 - Provision for Escape			
D1.1	**Application of Part**		Applicable
D1.2	**Number of exits required**	Sufficient exits provided for each building.	Complies
D1.3	**When fire-isolated stairways and ramps are required**		N/A
D1.4	**Exit 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.	Applies to **P10 - Proposed Sports & Recreation Centre** The following areas have been identified with distances exceeding 20m to a point of choice: 3. Level 1 up to 43m – Redesign required due to excessive distance.  4. Ground floor storage up to 37m – Redesign required due to excessive distance. 	Does Not Comply
D1.5	**Distance between alternative exits** The following travel distance limits apply: • ≤ 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.	Applies to **P10 - Proposed Sports & Recreation Centre** The ground floor courts exceed 60m between alternative exits. An additional exit is to be located on the façade area highlighted in red to allow complying distances between alternative exits.	Does Not Comply

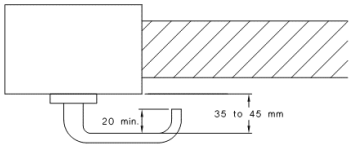
Clause	Description	Comment	Status
			
D1.6	**Dimensions of exits and paths of travel to exits**	Refer to Clause D1.13 regarding design population queries. An aggregate egress width assessment for each building is to be undertaken once consensus on population numbers is agreed. To be completed during further design development stages and to be confirmed compliant prior to the Construction Certificate.	Additional Details Required
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**	Applies to **P10 - Proposed Sports & Recreation Centre**	Complies
D1.10	**Discharge from exits** An exit must not be blocked nor be capable of being blocked at its point of discharge. The discharge point of alternative exits must be located as far apart as practical. Exits discharging to open space at a different level to the road are required to have a gradient of 1:8 or 1:14 if also serving as accessible pathway.	Compliance is achievable.	Compliance Readily Achievable
D1.11	**Horizontal exits**		N/A
D1.12	**Non-required stairways, ramps or escalators**		N/A
D1.13	**Number of persons accommodated**	Anglican College to provide a design population breakdown inclusive of intended students and staff for each building. Any proposed approved community use for the buildings is to be advised including any forecast population numbers.	Additional Details Required
D1.14	**Measurement of distances**		Noted
D1.15	**Method of measurement**		Noted
D1.16	**Plant rooms, lift machine rooms and electricity network substations: Concession**		N/A
D1.17	**Access to lift pits** Any lift pits are to comply with the requirements of	Lift consultant to confirm.	Compliance Readily

Clause	Description	Comment	Status
	this clause.		Achievable
D1.18	**Egress from early childhood centres**		N/A
Part D2 – Construction of Exits			
D2.1	**Application of Part**		Applicable
D2.2	**Fire-isolated stairways and ramps**		N/A
D2.3	**Non-fire-isolated stairways and ramps**		N/A
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 meters and motors, distribution boards and telecommunication boards must not be accessed from fire isolated exits and, if located in corridors leading to exits, should occur in non-combustible or fire protective smoke sealed enclosures. No openings to ducts conveying hot products of combustion permitted in required exits. Gas or fuel services not permitted in required exits. Electric or services equipment in paths of travel to exits must be within a non-combustible and smoke sealed enclosure.	Install non-combustible linings to the internal walls, ceiling and doors of relevant cupboards and install smoke seals to the doors.	Compliance Readily Achievable
D2.8	**Enclosure of space beneath stairs and ramps** The space below non fire-isolated stairs 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.	Applies to **P10 - Proposed Sports & Recreation Centre.** No cupboard proposed beneath the stair.	Complies
D2.9	**Width of required stairways and ramps**.		Noted
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** To provide safe passage, stairways must comply with the following: • minimum 2 risers / maximum 18 in each flight • risers 115mm min 190 mm max - going 250mm min 355mm max - 2R+G 550mm min 700mm max. • 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. • 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	Plans detailing stair compliance is to be provided with the Construction Certificate.	Additional Details Required

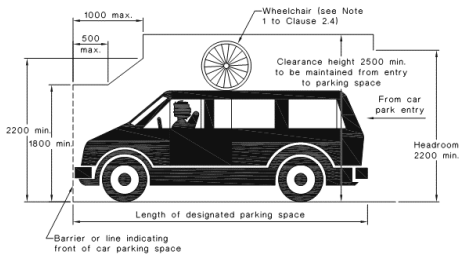
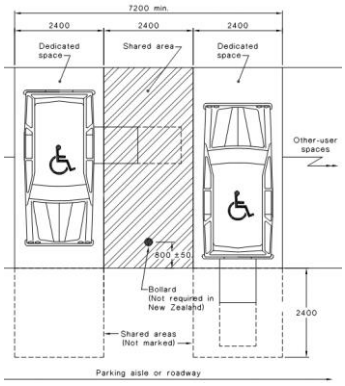
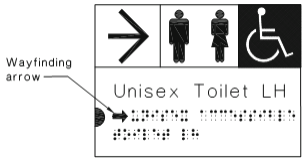
Clause	Description	Comment	Status
	accordance with AS 4586. • in a Class 9b building, not more than 36 risers in consecutive flights without a change in direction of at least 30°. • in the case of a required stairway, no winders in lieu of a landing.  		
D2.14	**Landings** Ramps Surfaces, stair tread 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: **Application** / **Dry Surface Conditions** / **Wet Surface Condition** 1:14 or steeper ramps — P4 or R11 — P5 or R12 Ramps of 1:14 to 1:20 — P3 or R10 — P4 or R11 Tread or Landing Surface — P3 or R10 — P4 or R10 Nosing Strip or Landing Strip — P3 — P4	Plans detailing stair compliance is to be provided with the Construction Certificate.	Additional Details Required
D2.15	**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.	Note that where access for people with disabilities is required it is not permitted to have a step at the threshold of a doorway	Compliance Readily Achievable
D2.16	**Barriers to prevent falls** Requirements apply to the provision and design of barriers at locations where a person could fall 1m or more. Generally, 125mm maximum gap size limits apply between balusters or rails and a 1m minimum height applies, with alternate dimensions permitted in fire isolated stairs and industrial areas.  	Further details of balustrades will need to be provided to confirm compliance for the Construction Certificate.	Additional Details Required

Clause	Description	Comment	Status
	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. 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 below 		
D2.17	**Handrails** Handrails to exits including parts of fire isolated exit serving an area required to be accessible to people with disabilities must comply with Clause 12 of AS1428.1, viz: • 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 • A second handrail for primary school use is required at a height between 665mm and 750mm.	Handrail details to be confirmed by the access consultant Handrails are to be provided in compliance with Clause D3.3 and include the following- **Non-Fire Isolated Stairways and Ramps** 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	Additional Details Required
	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  SECTION A-A (a) Plan 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.	Certification to AS1657 is to be provided	Compliance Readily Achievable
D2.19	**Doorways and doors** Must not be revolving door, roller shutter or tilt door. Can be fitted with a sliding door if it leads directly to open space and can be opened manually under a force of not more than 110N and be fitted with a fail-safe device if the door is power operated.	Swinging door are proposed for exits.	Complies
D2.20	**Swinging doors**	**Applies to all buildings.**	Does Not

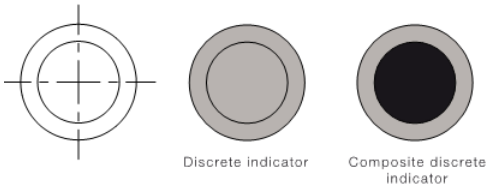
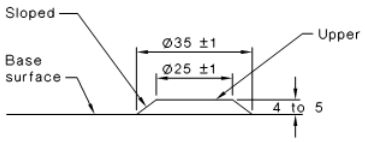
Clause	Description	Comment	Status
	Defined exit doors that serve a part of a building with a floor area over 200m^2 must swing outward in the direction of exit travel.	All exit doors from each building are required to swing outwards in the direction of egress. Currently the doors are shown as swinging inwards. Redesign required.	Comply
D2.21	**Operation of latch** Exit doors should be provided with "free handle" egress via a downward or pushing action and, if serving an area accessible to people with disabilities, must have non-slip "D" pull handles with 35-45mm hand clearances.  (a) Isometric view  (b) Plan view Where the latch operation device is not located on the door leaf itself- • manual controls to power-operated doors must be at least 25 mm wide, proud of the surrounding surface and located not less than 500 mm from an internal corner; and • for a hinged door, between 1 m and 2 m from the door leaf in any position; • and for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position. • braille and tactile signage complying with Clause 3 and 6 of Specification D3.6 must identify the latch operation device.	All exit doors and doors in the path of travel are to comply.	Compliance Readily Achievable
D2.22	**Re-Entry from Fire-Isolated Exits**		N/A
D2.23	**Signs on doors**		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	**General building access requirements** Access is required: To and within all areas normally used by the occupants.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 –	Additional Details Required

Clause	Description	Comment	Status
	To wheelchair seating spaces provided in accordance with D3.9. To and within all other areas normally used by the occupants, except that access need not be provided to tiers or platforms of seating areas that do not contain wheelchair seating spaces.	2009.	
D3.2	**Access to buildings** External access to the building for people with a disability must be provided: • From main pedestrian entry points at the allotment boundary. • Through the principle pedestrian entrance. • Through at least 50% of all pedestrian entries. • From accessible car parking spaces. • For buildings over 500m², so that an accessible entry occurs within 50m of any non-accessible entry. • From any another accessible building on the site.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required
D3.3	**Parts of the building to be accessible** All parts of the building must be accessible to people with a disability except for areas where access would be inappropriate due to the particular use or areas that would pose a health or safety risk to people with a disability. Every ramp, except a fire isolated ramp, must comply with Clause 10 if AS 1428.1. Every stairway, except a fire isolated stairway, must comply with Clause 11 of AS 1428.1. Every passenger lift must comply with Clause E3.6. Access ways must have passing spaces and turning spaces complying with AS 1428.1. Pile height or pile thickness of carpets shall comply with the requirements of this Clause and AS 1428.1.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required
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.	Any areas exempted for access for people with disabilities is to be identified and justified in the access report.	Noted
D3.5	**Accessible carparking** The accessible parking spaces must comply with AS/NZS 2890.6 – 2009. General requirements are: • 2.4m x 5.4m. • 2.2m head clearance for access and egress routes to and from accessible car spaces. • 2.5m head clearances over accessible car spaces. • Flat even surfaces. • Designated and sign posted for disabled users.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required

Clause	Description	Comment	Status
	 		
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. 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 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 identifying ambulant accessible sanitary facilities in accordance with AS 1428.1 must be located on the door of the facility. 	Signage details must be in accordance with AS1428.1 - 2009 and Specification D3.6 of the BCA. Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required

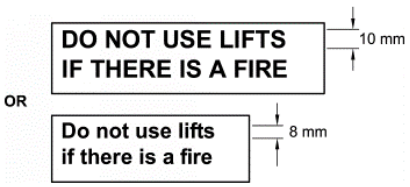
Clause	Description	Comment	Status
	  Where the pedestrian entrance is not accessible, directional signage in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance. Where a bank of sanitary facilities is not provided with an accessible 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— i) in a room in a Class 9b building; or ii) in an auditorium, conference room, meeting room or room for judicatory purposes; or iii) at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider 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; and 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; and 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.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required
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,	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required

Clause	Description	Comment	Status

	• an escalator, passenger conveyor or moving walk,
	• a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp, or
	• in the absence of a suitable barrier an overhead:
	  ○ obstruction less than 2 m above floor level, other than a doorway
	  ○ 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
	 
	
	(a) Plans of individual truncated cones
	 
	
	(b) Elevation of individual truncated cone		

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.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required
D3.10	**Swimming pools**		N/A
D3.11	**Ramps** On an access way a series of connected ramps must not have a combined vertical rise of more than 3.6m. A landing for a step ramp must not overlap a landing of another step ramp or ramp.		Compliance Readily Achievable
D3.12	**Glazing on an accessway** On an accessway, 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.		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	-

Clause	Description	Comment	Status
E1.3	**Fire hydrants** The building requires a fire hydrant system in accordance with AS 2419.1 – 2005.	Applies to **P10 - Proposed Sports & Recreation Centre, P5 – Junior School Classroom & E10 – Cultural Centre Extension** Hydraulic engineer with FPAS accreditation for Fire Hydrant system design is to provide drawings and design certification for the Construction Certificate detailing compliance with Clause E1.3 of the BCA and AS 2419.1 - 2005. Particular compliance items to be detailed include: • Confirmation of fire brigade booster assembly location (if required) • Details of any requirement for a hydrant pump. • Proposed location of fire hydrants. • Utilisation of any existing site wide fire hydrant infrastructure.	Additional Details Required
E1.4	**Fire hose reels** Fire hose reel coverage to AS2441 - 2005. Note: Fire hose reels not required to: - • Class 5 buildings; • Classrooms and associated corridors in Class 9b primary and secondary schools	Applies to **P10 - Proposed Sports & Recreation Centre, P5 – Junior School Classroom & E10 – Cultural Centre Extension** Hydraulic engineer with FPAS accreditation for Fire Hose Reels system design is to provide drawings and design certification for the Construction Certificate detailing compliance with Clause E1.4 of the BCA and AS 2441 - 2005.	Additional Details Required
E1.5	**Sprinklers**		N/A
E1.6	**Portable fire extinguishers** Portable Fire Extinguishers are required be installed to Table E1.6 and AS 2444 requirements, at: • Throughout Class 5 buildings • emergency services switchboards • kitchens • flammable liquid stores • where fire hose reels are not installed.	Details of portable fire extinguisher selections and locations are to be provided of the Construction Certificate.	Additional Details Required
E1.7	-	This Clause has deliberately been left blank	-
E1.8	**Fire control centre**		N/A
E1.9	**Fire precautions during construction** In a building under construction not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit.	Builder to ensure compliance.	Compliance Readily Achievable
E1.10	**Provisions for special hazards**		N/A
Part E2 – Smoke Hazard Management			
E2.1	**Applicable of Part**		Applicable

Clause	Description	Comment	Status
E2.2	**Smoke hazard management - General requirements** NSW Variation Automatic shutdown of any air-handling system is required to all Class 9b assembly buildings. Automatic shutdown is required to be activated by a smoke detection system in accordance with Clause 6 of Specification E2.2a. Note: Automatic shutdown is not required to air-handling systems that consist of – • non-ducted individual rooms units with a capacity not more than 1000L/s; and • Miscellaneous exhaust air systems in accordance with Sections 5 and 6 of AS 1668.1.	Applies to **P10 - Proposed Sports & Recreation Centre, P5 – Junior School Classroom & E10 – Cultural Centre Extension** The mechanical engineer is to confirm whether air-handling systems other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1—2015 are proposed. If so, these air-handling systems are to be provided with automatic shutdown capability that is activated by smoke detectors complying with Clause 6 of Specification E2.2a and the following is to be provided for review: • Fire services plans and associated design certificate that has been prepared by an electrical engineer. • Mechanical plans and associated design certificate that has been prepared by a mechanical engineer.	Additional Details Required
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.	Lift supplier/installer to confirm compliance.	Compliance Readily Achievable
E3.2	**Stretcher facility in lifts**		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.	Signage to be installed stating. 	Compliance Readily Achievable
E3.4	**Emergency lifts**		N/A
E3.5	**Landings**	Lift supplier/installer to confirm compliance.	Compliance Readily Achievable
E3.6	**Passenger lifts** Every passenger lift must be one of the types identified n 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.	Lift supplier/installer to confirm compliance.	Compliance Readily Achievable

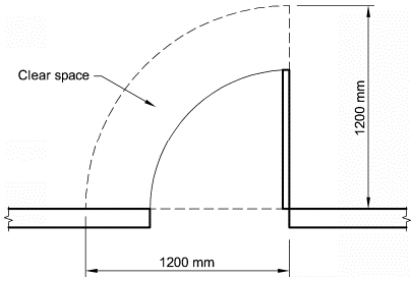
Clause	Description	Comment	Status
E3.7	**Fire service control**		N/A
E3.8	**Residential care buildings**		N/A
E3.9	**Fire service recall control switch**		N/A
E3.10	**Lift car fire service drive control switch**		N/A
Part E4 – Emergency Lighting, Exit and Warning Systems			
E4.1	-	This clause has been intentional left blank	-

E4.2	**Emergency lighting requirements**
	Emergency lighting is to be provided in:
	• 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 6 or 9b building if:
	  • the floor area is more than 300m^2;
	  • or if any point on the floor is more than 20m from the nearest doorway opening directly to the road or open space; or
	  • if the egress involves a vertical rise within the building of more than 1.5m.
		Electrical drawings and design certification from an electrical engineer is to be provided for the Construction Certificate.	Additional Details Required

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 must be clearly visible to person approaching the exit and must be installed on, above or adjacent to; 5. A door providing direct egress from a storey to a stairway, passageway or ramp serving as a required exit. 6. A door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space. 7. A horizontal exit 8. A door serving as or forming part of a required exit in a storey required to be provided with emergency lighting.	Electrical drawings and design certification from an electrical engineer is to be provided for the 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	Electrical drawings and design certification from an electrical engineer is to be provided for the Construction Certificate.	Additional Details Required

Clause	Description	Comment	Status
E4.7	**Class 2 and 3 buildings and Class 4 parts: Exemptions**		N/A
E4.8	**Design and operation of exit signs** 1. Exit signs are to operate in accordance with AS 2293.1. 2. Photo luminescent exit sign are to comply with Specification E4.8		Compliance Readily Achievable
E4.9	**Emergency warning and intercom systems** A Class 9b building used as theatre, public hall or like having a floor area more than 1000m^2 requires emergency warning and intercom system complying with AS 1670.4.	Applies to **E10 – Cultural Centre Extension** Will apply to E10 if any public use is proposed.	Additional Details Required
Section F: Health and Amenity			
Part F1 – Damp and Weatherproofing			
F1.0	**Water proofing of external walls** Weatherproofing of an external wall must comply with Performance Requirement FP1.4, which requires that an external wall (including openings around windows and doors) must prevent the penetration of water that could cause— • unhealthy of dangerous conditions, or loss of amenity for occupants • undue dampness or deterioration of building elements. Alternatively, Verification Method FV1 can be used to demonstrate compliance with FP1.4 for weatherproofing of an external wall. **Note 1:** There is no deemed-to-satisfy solution for external weatherproofing for external walls in Class 2-9 buildings and all design are performance solutions.	A performance solution report prepared by the architect or façade engineer is to be provided that— • states the façade complies with performance requirement FP1.4 • lists the proposed external wall systems and includes any supporting documentation (e.g. CodeMark Certificate). Alternatively, a test report for each proposed external wall system is to be provided that demonstrates compliance with verification method FV1.1.	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

Clause	Description	Comment	Status
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 floor timber 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.		Compliance Readily Achievable
F1.10	**Damp-proofing of floors on the ground** A vapour barrier in accordance with AS2870 is to be provided beneath the ground floor slab.		Compliance Readily Achievable
F1.11	**Provision of floor wastes**		N/A
F1.12	**Subfloor ventilation** A sub floor space is to be cleared of all building debris and vegetation and be cross ventilated in accordance with Table F1.12 by evenly distributed openings provided in the external walls Additionally the sub floor space is to contain no dead air spaces and be graded to prevent water ponding under the building.		Compliance Readily Achievable
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.	Refer to Clause D1.13 regarding design population queries. A sanitary facility assessment for each building is to be undertaken once consensus on population numbers is agreed. To be completed during further design development stages and to be confirmed compliant prior to the Construction Certificate.	Additional Details Required
F2.4	**Accessible sanitary facilities** Accessible unisex toilets for people with a disability are required on each storey and at 50% of toilet banks on any storey.	Access report from an access consultant to be provided confirming compliance with access for people with disabilities requirements of the BCA and AS 1428.1 – 2009.	Additional Details Required
F2.5	**Construction of sanitary compartments**	All hinged doors that swing inward to	Compliance

Clause	Description	Comment	Status
	Where clear space between closet pan and doorway is less than 1.2m, doors must open outwards, slide or be readily removable from outside.	sanitary facilities and do not comply with achieving a 1200mm clearance to pan are required to be installed with lift-off hinges 	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
F2.9	**Accessible adult change facilities**		N/A
Part F3 – Room Heights			
F3.1	**Height of rooms and other spaces** Generally, a minimum ceiling height of 2.4m is required throughout. In a Class 9b building in a school classroom or other assembly building with more than 100 persons — 2.4 m; In a corridor that serves an assembly building with not more than 100 persons — 2.4 m	Ceiling heights capable of complying.	Compliance Readily Achievable
Part F4 – Light and Ventilation			
F4.1	**Provision of natural light** Natural lighting is required to all general purpose classrooms in primary and secondary schools.	Natural lighting to be provided in accordance with Clause F4.2	Applicable
F4.2	**Methods and extent of natural lighting** Natural light is required to be provided to 10% of the floor area of all general purpose classrooms through windows or 3% of the floor area from roof lights. Windows required for natural light that face the boundary or a wall of the same building are to be a least 1m in distance or 50% of the square root of the exterior height of the wall in which the window in located, which is greater.	A window schedule is to be submitted for review demonstrating natural provisions to all classrooms.	Additional Details Required
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** *(NSW variation for Public Health Regulation)* 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.	Confirmation of whether mechanical or natural ventilation is proposed to the building. If mechanical ventilation is proposed, design details and certification from a mechanical engineer is required.	Additional Details Required

Clause	Description	Comment	Status
F4.6	**Natural ventilation** Natural ventilation in accordance with F4.5 is required to consist of permanent openings, windows, or other devices which can be opened- • With an aggregate opening or openable size not less than 5% of the floor area of the room required to be ventilated; and • Open to the- ○ suitably sized court, or space open to the sky; ○ an open verandah, carport, or the like; or an adjoining room in accordance with F4.	Confirmation of whether mechanical or natural ventilation is proposed to the building. If natural ventilation is proposed, details of window opening sizes are to be provided for assessment.	Additional Details Required
F4.7	**Ventilation borrowed from adjoining room**	Ventilation may be borrowed from an adjoining room is accordance with this clause.	Noted
F4.8	**Restriction on location of sanitary compartments**		Complies
F4.9	**Airlocks**		N/A
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** *(NSW variation for swimming pools)*		N/A
G1.2	**Refrigerated chambers, strong rooms and vaults**		N/A
G1.3	**Outdoor play spaces** Any outdoor play space in a Class 9b early childhood centre must be enclosed on all sides with a barrier which complies with AS 1926.1.		N/A
NSW G1.101	**Provision for cleaning windows** A safe manner of cleaning windows is to be provided as windows are located 3 or more storeys above ground level.	The windows must either be able to be cleaned wholly from within the building, or a method complying with the Construction Safety Act 1912 and Regulations is required.	N/A
Part G2 - Boilers, pressure vessels, heating appliances, fire places, chimneys and flues			
G2.1	-	This clause has intentionally been left blank	-
G2.2	**Installation of appliances**		N/A
G2.3	**Open fireplaces**		N/A
G2.4	**Incinerator rooms**		N/A

Clause	Description	Comment	Status
Part G3 - Atrium Construction			**N/A**
Part G4 - Construction in Alpine Areas			**N/A**
Part G5 - Construction in Bushfire Prone Areas			
NSW G5.1	**Application of Part** The Deemed-to-Satisfy Provisions of this part apply to— (a) a Class 2 or 3 building; or (b) a Class 4 part of a building; or (c) a Class 9 building that is a special fire protection purpose; or (d) a Class 10a building or deck associated with a building or a part referred to in (a), (b) or (c),	The buildings are Class 9 that are a special fire protection purpose. The site contains bushfire mapping	Noted
NSW G5.2	**Protection** In a designated bushfire prone area, a Class 2 building, a Class 3 building, a Class 4 part of a building or a Class 9 building that is a special fire protection purpose or a Class 10a building or deck associated with such a building or part, mustcomply with the following— (a) AS 3959 except— (i) as amended by Planning for Bush Fire Protection; and (ii)for Section 9 Construction for Bushfire Attack Level FZ (BAL-FZ). Buildings subject to BAL-FZ must complywith specific conditions of development consent for construction at this level; or (b) the requirements of (a) above as modified by the development consent following consultation with the NSW RuralFire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or (c) the requirements of (a) above as modified by development consent with a bushfire safety authority issued under Section 100B of the Rural Fire Act 1987 for the purposes of integrated development.	Bushfire Safety report to be provided confirming compliance.	Additional Details Required
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** *(NSW variation for Entertainment Venues)* Applies every enclosed Class 9b building, which is not an entertainment venue which— IV. is a school assembly, church or community hall with a stage and any backstage area with a total floor area of more than 300m^2; or V. otherwise, has a stage and any backstage area with a total floor area of more than 200m^2; or	Confirmation as to whether the stage has a rigging loft is to be provided. If so, Part H1 will apply and will need the assessed for BCA compliance.	Additional Details Required

Clause	Description	Comment	Status
	VI. has a stage with an associated rigging loft. Notwithstanding the above- II. H1.4 applies to every open or enclosed Class 9b building; and III. H1.7 applies to every enclosed Class 9b building.		
H1.2	**Separation**		N/A
H1.3	**Proscenium wall construction**		N/A
H1.4	**Seating area**		N/A
H1.5	**Exit from stages**		N/A
H1.6	**Access to platforms and lofts**		N/A
H1.7	**Aisle lights**		N/A
NSW Part - H101 Entertainment Venues other than Temporary Structures and Drive-In Theatres			
H101.1	**Application of Part** This Part applies to every entertainment venue as described in the Environmental Planning and Assessment Regulation 2000.	Entertainment Venue is defined as a building used as a cinema, theatre or concert hall or an indoor sports stadium. No assessment has been undertaken to NSW H101 requirements on the basis the buildings are not an 'entertainment venue'. If the cultural centre is proposed to be used as public theatre or concert hall then it will be considered an 'Entertainment Venue' and H101 provisions will apply.	Additional Details Required
NSW Part - H102 Temporary Structures			**N/A**
NSW Part - H103 Drive-In Theatres			**N/A**
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. • Artificial lighting and power • Hot water supply	Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Additional Details Required

Clause	Description	Comment	Status
	• Access for maintenance		
NSW Subsection J(B) Energy Efficiency - Class 3 and Class 5 to 9 Buildings			
NSW J(B)1 - Compliance with BCA Provisions.	Class 3 and Class 5 to 9 buildings must comply with all of the provisions of the national **Section J** that are applicable to the relevant classifications, except as varied by **NSW J3.1** Application of Part.		
Part J0 - Energy Efficiency			
J0.1	**Application of Part**		Noted
J0.2	**Heating and cooling loads of sole-occupancy units of a Class 2 building or a Class 4 part**		N/A
J0.3	**Ceiling fans**		N/A
J0.4	**Roof thermal breaks**		N/A
J0.5	**Wall thermal breaks**		N/A
Part J1 - Building Fabric			
J1.1	**Application of Part**	Applies to building elements forming the envelope. The building is located within Climate Zone 6. Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Additional Details Required
J1.2	**Thermal construction – general** Insulation must comply with AS/NZS 4859.1 and be installed in accordance with Clause J1.2.	Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Compliance Readily Achievable
J1.3	**Roof and ceiling construction** A roof or ceiling must achieve a Total R-Value greater than or equal to R3.7 for an upward direction of heat flow. The solar absorptance of the upper surface of a roof must not be more than 0.45.	Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Compliance Readily Achievable
J1.4	**Roof lights**		N/A
J1.5	**Walls and glazing** The Total System U-Value of wall-glazing construction must not be greater than U2.0. The Total System U-Value of wall-glazing construction must be calculated in accordance with Specification J1.5a and the requirements of this clause. The solar admittance of externally facing wall-glazing construction must be greater than the values specified in Table J1.5c and are to be calculated in accordance with Specification J1.5a.	Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Compliance Readily Achievable
J1.6	**Floors** The floor must achieve a Total R-Value of 2.0 for downwards heat flow.	Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Compliance Readily Achievable

Clause	Description	Comment	Status
Part J2 - This Part has deliberately been left blank			-
Part J3 - Building Sealing			
J3.1	**Application of Part**	Applies to elements forming the envelope. Assessment by an Energy Efficiency consultant is to be carried out and Section J Compliance Report provided.	Additional Details Required
J3.2	**Chimneys and flues**		N/A
J3.3	**Roof lights**		N/A
J3.4	**Windows and doors** A seal to restrict air infiltration must be fitted to each edge of an external door, openable external window or the like when serving a conditioned space.		Compliance Readily Achievable
J3.5	**Exhaust fans** A miscellaneous exhaust fan must be fitted with a sealing device such as a self-closing damper or the like when serving a conditioned space.		Compliance Readily Achievable
J3.6	**Construction of roofs, walls and floors** Roofs, walls, floors and any opening must be constructed to minimise air leakage in accordance with Clause J3.6(b) when forming part of the external fabric of a conditioned space. These requirements do not apply to openings, grilles and the like required for smoke hazard management.		Compliance Readily Achievable
J3.7	**Evaporative coolers**		N/A
Part J4 - This Part has deliberately been left blank			
Part J5 - Air-conditioning and Ventilation Systems			
J5.1	**Application of Part**	Design certification confirming compliance with Part J5 of the BCA is to be provided by the mechanical engineer for the Construction Certificate.	Additional Details Required
J5.2	**Air-conditioning system control** An air-conditioning system must be capable of being deactivated when the building or part of a building served by that system is not occupied. An air-conditioning system must comply with requirements specified under this clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.3	**Mechanical ventilation system control** The mechanical ventilation system must comply with the requirements specified under this clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.4	**Fan systems** Fans, ductwork and duct components that form part of an air-conditioning system or mechanical ventilation system must comply with the requirements of thus clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.5	**Ductwork insulation**	The mechanical engineer is to design and	Compliance

Clause	Description	Comment	Status
	Ductwork and fittings in an air-conditioning system must be provided with insulation complying with the requirements of this clause.	certify the mechanical ventilation system to comply with the requirements under this Clause.	Readily Achievable
J5.6	**Ductwork sealing** Ductwork in an air-conditioning system with a capacity of 3000 L/s or greater, not located within the only or last room served by the system, must be sealed against air loss in accordance with the duct sealing requirements of AS 4254.1 and AS 4254.2 for the static pressure in the system.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.7	**Pump systems** Pumps and pipework that form part of an air-conditioning system must comply with the requirements of this clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.8	**Pipework insulation** Piping, vessels, heat exchangers and tanks containing heating or cooling fluid, where the fluid is held at a heated or cooled temperature, that are part of an air-conditioning system, other than in appliances covered by MEPS, must be provided with insulation complying with the requirements of this clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.9	**Space heating** A heater used for air-conditioning or as part of an air-conditioning system must comply with the requirements of this clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.10	**Refrigerant chillers** An air-conditioning system refrigerant chiller must comply with MEPS and the full load operation energy efficiency ratio and integrated part load energy efficiency ratio in Table J5.10a or Table J5.10b when determined in accordance with AHRI 551/591.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.11	**Unitary air-conditioning equipment** Unitary air-conditioning equipment including packaged air-conditioners, split systems, and variable refrigerant flow systems must comply with the requirements of this clause.	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
J5.12	**Heat rejection equipment** The motor rated power of a fan in a cooling tower, closed circuit cooler or evaporative condenser must not exceed the allowances in Table J5.12**.** The fan in an air-cooled condenser must have a motor rated power in accordance with the requirements of this clause	The mechanical engineer is to design and certify the mechanical ventilation system to comply with the requirements under this Clause.	Compliance Readily Achievable
Part J5 - Artificial Lighting and Power			
J6.1	**Application of Part**	Design certification confirming compliance with Part J6 of the BCA is to be provided by the electrical engineer for the BA.	Additional Details Required
J6.2	**Artificial lighting** For artificial lighting, the aggregate design illumination power load must not exceed the sum of the allowances obtained by multiplying the area of	The electrical engineer is to design and certify the electrical design to comply with the requirements under this Clause.	Compliance Readily Achievable

Clause	Description	Comment	Status
	each space by the maximum illumination power density in Table J6.2a. Aggregate design illumination power is to be calculated in accordance with requirements of this clause.		
J6.3	**Interior artificial lighting and power control** The power control for artificial interior lighting must comply with the requirements of Clause J6.3. Artificial lighting of a room or space must be individually operated by a switch or other control device in accordance with Specification J6.	The electrical engineer is to design and certify the electrical design to comply with the requirements under this Clause.	Compliance Readily Achievable
J6.4	**Interior decorative and display lighting** Interior decorative and display lighting, such as for foyer mural or art displays, must be controlled separately from other artificial lighting as specified in Clause J6.4. Window display lighting must be controlled separately from other display lighting.	The electrical engineer is to design and certify the electrical design to comply with the requirements under this Clause.	Compliance Readily Achievable
J6.5	**Artificial lighting around the perimeter of a building** Artificial lighting around the perimeter of a building must be controlled by a daylight sensor or time switch as specified in Clause J6.5.	The electrical engineer is to design and certify the electrical design to comply with the requirements under this Clause.	Compliance Readily Achievable
J6.6	**Boiling water and chilled water storage units** Power supply to a boiling water or chilled water storage unit must be controlled by a time switch in accordance with Specification J6.	The electrical engineer is to design and certify the electrical design to comply with the requirements under this Clause.	Compliance Readily Achievable
J6.7	**Lifts** Lifts must be configured to:- • ensure artificial lighting and ventilation in the car are turned off when it is unused for 15 minutes; • achieve the idle and standby energy performance level in Table 6.7a; • achieve the energy efficiency class in Table 6.7b; or if a dedicated goods lift energy efficiency class D in accordance with ISO 25745-2.	The electrical engineer is to design and certify the electrical design to comply with the requirements under this Clause.	Compliance Readily Achievable
J6.8	**Escalators and moving walkways**		N/A
Part J7 - Heated Water Supply and Swimming Pool and Spa Pool Plant			
J7.1	-	This Clause has deliberately been left blank	-
J7.2	**Heated water supply** A heated water supply system for food preparation and sanitary purposes must be designed and installed in accordance with Part B2 of NCC Volume Three – Plumbing Code of Australia		Compliance Readily Achievable
J7.3	**Swimming pool hearing and pumping**		N/A
J7.4	**Spa pool heating and pumping**		N/A
Part J8 - Facilities for Energy Monitoring			
J8.1	**Application of Part**	Applies to the building.	Applicable

Clause	Description	Comment	Status
J8.2	-	This Clause has deliberately been left blank	-
J8.3	**Facilities for energy monitoring** A building with a floor area of more than 500 m2 must have an energy meter configured to record the time-of-use consumption of gas and electricity.	Applies to **P5 – Junior School Classroom, P7 – Community Hub & E10 – Cultural Centre Extension** Design certificate confirming compliance to be provided by the electrical engineer for the Construction Certificate.	Additional Details Required
	A building with a floor area of more than 2,500m^2 must have the facility to record individually the energy consumption of: I. air-conditioning plant including, where appropriate, heating plant, cooling plant and air handling fans; and II. artificial lighting; and III. appliance power; and IV. central hot water supply; and V. internal transport devices including lifts, escalators and travelators where there is more than one serving the building; and VI. other ancillary plant. Energy meters required by (b) must be interlinked by a communication system that collates the time-of-use energy consumption data to a single interface monitoring where it can be stored, analysed and reviewed.	Applies to **P10 - Proposed Sports & Recreation Centre** Design certificate confirming compliance to be provided by the electrical engineer for the Construction Certificate.	Additional Details Required

15. Appendix A – Referenced Documentation

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

Drawing No.	Title	Issue	Date	Drawn By
DA-11-01	Campus Site Plan	3	22/07/2022	Cox Architecture
DA-11-02	Campus Plan – Staging of Proposed Works	1	22/07/2022	Cox Architecture
DA-11-03	Demolition Plan	3	22/07/2022	Cox Architecture
DA-11-21	Detailed Site Plan	4	22/07/2022	Cox Architecture
DA-SR-21-01	Floor Plan – Sports and Recreation Centre	2	22/07/2022	Cox Architecture
DA-SR-21-02	Roof Plan – Sports and Recreation Centre	1	22/07/2022	Cox Architecture
DA-SR-21-10	Notification Plan – Sports and Recreation Centre	1	22/07/2022	Cox Architecture
DA-SR-30-01	Elevations – Sports and Recreation Centre	1	22/07/2022	Cox Architecture
DA-SR-30-02	Elevations – Sports and Recreation Centre	1	22/07/2022	Cox Architecture
DA-SR-40-01	Sections – Sports and Recreation Centre	1	22/07/2022	Cox Architecture
DA-CH-21-01	Floor Plan – Community Hub	2	22/07/2022	Cox Architecture
DA-CH-21-02	Roof Plan – Community Hub	1	22/07/2022	Cox Architecture
DA-CH-21-10	Notification Plan – Community Hub	1	22/07/2022	Cox Architecture
DA-CH-30-01	Elevations 01 – Community Hub	1	22/07/2022	Cox Architecture
DA-CH-30-02	Elevations 02 – Community Hub	1	22/07/2022	Cox Architecture
DA-CH-40-01	Sections – Community Hub	1	22/07/2022	Cox Architecture
DA-JS-21-01	Floor Plan – Junior Classroom	1	22/07/2022	Cox Architecture
DA-JS-21-02	Roof Plan – Junior Classroom	1	22/07/2022	Cox Architecture
DA-JS-21-10	Notification Plan – Junior Classroom	1	22/07/2022	Cox Architecture
DA-JS-30-01	Elevations 01 Plan – Junior Classroom	1	22/07/2022	Cox Architecture
DA-JS-30-02	Elevations 02 Plan – Junior Classroom	1	22/07/2022	Cox Architecture
DA-JS-40-01	Sections – Junior Classroom	1	22/07/2022	Cox Architecture
DA-CC-21-01	Floor Plan – Cultural Centre Extension	2	22/07/2022	Cox Architecture
DA-CC-21-02	Roof Plan – Cultural Centre Extension	1	22/07/2022	Cox Architecture
DA-CC-21-10	Notification Plan – Cultural Centre Extension	1	22/07/2022	Cox Architecture
DA-CC-30-01	Elevations 01 – Cultural Centre Extension	1	22/07/2022	Cox Architecture
DA-CC-30-02	Elevations 02 – Cultural Centre Extension	1	22/07/2022	Cox Architecture
DA-CC-40-01	Sections – Cultural Centre Extension	1	22/07/2022	Cox Architecture

16. Appendix B – Statutory Fire Safety Measures

Schedule of Statutory Fire Safety Measures

Measure	Standard of Performance
P10 - Proposed Sports & Recreation Centre	
Automatic Fire Detection And Alarm System *(Smoke Detection System To Automatically Shutdown Air-Handling System)* - ***TBC***	BCA 2019 Amendment 1 Clause 6 of Specification E2.2a and AS 1670.1 – 2018
Emergency Lighting	BCA 2019 Amendment 1 Clause E4.2, E4.4 and AS/NZS 2293.1 – 2018
Exit Signs	BCA 2019 Amendment 1 Clause E4.5, NSW E4.6, E4.8 and AS/NZS 2293.1 – 2018
Fire Hydrants Systems	BCA 2019 Amendment 1 Clause E1.3 and AS 2419.1 – 2005
Fire Seals Protecting Opening In Fire Resisting Components Of The Building	BCA 2019 Amendment 1 Clause C3.15, Specification C3.15, AS 1530.4 – 2014, AS 4072.1 – 2005 and installed in accordance with the tested prototype.
Hose Reel System	BCA 2019 Amendment 1 Clause E1.4 and AS 2441 – 2005
Mechanical Air Handling System *(Automatic Shut Down Of Air-Handling System)* - ***TBC***	BCA 2019 Amendment 1 Clause E2.2 and AS 1668.1 – 2015
Portable Fire Extinguishers	BCA 2019 Amendment 1 Clause E1.6 and AS 2444 – 2001
Warning And Operational Signs	BCA 2019 Amendment 1 Clause D3.6 and Specification D3.6
P7 – Community Hub	
Emergency Lighting	BCA 2019 Amendment 1 Clause E4.2, E4.4 and AS/NZS 2293.1 – 2018
Exit Signs	BCA 2019 Amendment 1 Clause E4.5, NSW E4.6, E4.8 and AS/NZS 2293.1 – 2018
Portable Fire Extinguishers	BCA 2019 Amendment 1 Clause E1.6 and AS 2444 – 2001
Warning And Operational Signs	BCA 2019 Amendment 1 Clause D3.6 and Specification D3.6
P5 – Junior School Classroom	
Automatic Fire Detection And Alarm System *(Smoke Detection System To Automatically Shutdown Air-Handling System)* - ***TBC***	BCA 2019 Amendment 1 Clause 6 of Specification E2.2a and AS 1670.1 – 2018
Emergency Lighting	BCA 2019 Amendment 1 Clause E4.2, E4.4 and AS/NZS 2293.1 – 2018
Exit Signs	BCA 2019 Amendment 1 Clause E4.5, NSW E4.6, E4.8 and AS/NZS 2293.1 – 2018
Fire Hydrants Systems	BCA 2019 Amendment 1 Clause E1.3 and AS 2419.1 – 2005

Measure	Standard of Performance
Hose Reel System	BCA 2019 Amendment 1 Clause E1.4 and AS 2441 – 2005
Mechanical Air Handling System *(Automatic Shut Down Of Air-Handling System)* ***-TBC***	BCA 2019 Amendment 1 Clause E2.2 and AS 1668.1 – 2015
Portable Fire Extinguishers	BCA 2019 Amendment 1 Clause E1.6 and AS 2444 – 2001
Warning And Operational Signs	BCA 2019 Amendment 1 Clause D3.6 and Specification D3.6
E10 – Cultural Centre Extension	
Automatic Fire Detection And Alarm System *(Smoke Detection System)* ***- TBC***	BCA 2019 Amendment 1 Clause 4 of Specification E2.2a and AS 1670.1 – 2018
Automatic Fire Detection And Alarm System *(Smoke Detection System To Automatically Shutdown Air-Handling System)* ***- TBC***	BCA 2019 Amendment 1 Clause 6 of Specification E2.2a and AS 1670.1 – 2018
Emergency Lighting	BCA 2019 Amendment 1 Clause E4.2, E4.4 and AS/NZS 2293.1 – 2018
Emergency Warning And Intercommunication System ***- TBC***	BCA 2019 Amendment 1 Clause E4.9 and AS 1670.4 – 2018
Exit Signs	BCA 2019 Amendment 1 Clause E4.5, NSW E4.6, E4.8 and AS/NZS 2293.1 – 2018
Fire Hydrants Systems	BCA 2019 Amendment 1 Clause E1.3 and AS 2419.1 – 2005
Hose Reel System	BCA 2019 Amendment 1 Clause E1.4 and AS 2441 – 2005
Mechanical Air Handling System *(Automatic Shut Down Of Air-Handling System)* ***- TBC***	BCA 2019 Amendment 1 Clause E2.2 and AS 1668.1 – 2015
Portable Fire Extinguishers	BCA 2019 Amendment 1 Clause E1.6 and AS 2444 – 2001
Warning And Operational Signs	BCA 2019 Amendment 1 Clause D3.6 and Specification D3.6
NSW H1 or H101 requirements	TBC

17. Appendix C1.1 – Fire Rating Requirements

Type B 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-				
For loadbearing parts-				
less than 1.5m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/30	120/ 90/60	180/120/90	240/180/120
3 to less than 9 m	90/30/30	120/ 30/30	180/90/60	240/90/60
9 to less than 18 m	90/30/-	120/30/-	180/60/-	240/60/-
18 m or more	- / - / -	- / - / -	- / - / -	- / - / -
For non-loadbearing parts-				
less than 1.5 m	-/90/90	- /120/120	- /180/180	- /240/240
1.5 to less than 3 m	-/60/30	- / 90/60	- /120/90	- /180/120
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 18m	90/ - / -	120/ - / -	180/ - / -	240/ - / -
18 m or more	- / - / -	- / - / -	- / - / -	- / - / -
For non-loadbearing columns	- / - / -	- / - / -	- / - / -	- / - / -
COMMON WALLS and FIRE WALLS	90/90/90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS-				
Fire-resisting lift and stair shafts-				
Loadbearing	90/90/90	120/120/120	180/120/120	240/120/120
Non-loadbearing	- /90/90	- /120/120	- /120/120	- /120/120
Bounding public corridors, public lobbies and the like-				
Loadbearing	60/60/60	120/ - / -	180/ - / -	240/ - / -
Non-loadbearing	- /60/60	- / - / -	- / - / -	- / - / -
Between or bounding sole-occupancy units-				
Loadbearing	60/60/60	120/ - / -	180/ - / -	240/ - / -
Non-loadbearing	- /60/60	- / - / -	- / - / -	- / - / -
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES and COLUMNS	60/ - / -	120/ - / -	180/ - / -	240/ - / -
ROOFS	- / - / -	- / - / -	- / - / -	- / - / -

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 and AS5637.1-2015

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
P10 - Proposed Sports & Recreation Centre			
Ground	2385	7632	Type B construction
Level 1	482	1543	
Combined	2867		
P7 – Community Hub			
Ground floor	465	1116	Type C construction
P5 – Junior School Classroom			
Ground floor	665	1596	Type C construction
E10 – Cultural Centre Extension			
Existing	704		Type C construction
Proposed extension	421		
Combined	1125	Approx 2180	

Nominated Fire Compartments

These are indicated in the table above.

20. Appendix D1.13 – Populations/Exit Width Assessment

TBC

21. Appendix D2.24 – Protection of Openable Windows

Building Use	Openable Windows		
	<2m above surface beneath	>2m above surface beneath	>4m above surface beneath
Bedrooms	No restrictions	Window located below 1.7m above bedroom floor:- • Must be protected by device to restrict window opening **OR** screen with secure fittings; AND • No opening greater than 125mm; AND • Device and screen must resist outward horizontal action of 250N; AND • Have child resistant release if device or screen is able to be removed, unlocked or overridden; AND • If device or screen is able to be removed, unlocked or overridden minimum 865mm barrier required to protect window. Note: No 865mm barrier required if device or screen is permanent and cannot be removed, unlocked or overridden Window located min. 1.7m above bedroom floor • No restrictions	Comments as per >2m above surface beneath
Other rooms (i.e. lounge, dining room etc)	No restrictions	No restrictions	Barrier required • Min. 865mm above floor • No openings exceeding 125mm • No climbable elements between 150-760mm above floor
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

22. 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

23. Appendix F2.3 – Requirements for Sanitary Facilities

TBC

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