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BUILDING CODE OF AUSTRALIA 2022 ASSESSMENT REPORT

UPGRADES TO NORTHMEAD PUBLIC SCHOOL

52A MOXHAMS ROAD, NORTHMEAD, NSW 2152

Report prepared for: Department of Education (DoE)
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REVISION HISTORY

Revision No.	Prepared by	Description	Date
R01	Shaneel Sharma	Draft BCA report for review and comment	01/11/2024
R02	Shaneel Sharma	Updated draft BCA Report with Planner's Requirements	10/12/2024
R03	Shaneel Sharma	Updated BCA Report for 100% Schematic Design	14/01/2025
R04	Shaneel Sharma	Updated BCA Report for 100% Schematic Design to include Planner's comments	05/02/2025

1.0 Introduction and Documentation

This Building Code of Australia 2022 (BCA) Assessment Report has been prepared to accompany a Review of Environmental Factors (REF) prepared for the Department of Education (DoE) relating to upgrades to Northmead Public School (the activity) under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (SEPP TI).

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure.

This report examines and takes into account the relevant environmental factors in the Guidelines and Environmental Planning and Assessment Regulations 2021 under Section 170, Section 171 and Section 171A of the EP&A Regulation**.**

This report has been prepared to offer comments and recommendations with respect to Building Code of Australia 2022 compliance. The report is the result of the review of the below listed architectural drawings as available at the time of assessment against the requirements of the Building Code of Australia 2022 (BCA), Volume 1.

The design documentation assessed comprises only the plans developed by Fulton Trotter Architects as follows (no structural or services documentation have been assessed as part of our review):

Drawing No/Rev.	Dated
NPS-FTA-XX-XX-DR-A-0001/03, NPS-FTA-00-00-DR-A-1101/04, NPS-FTA-00-00-DR-A-1201/02, NPS-FTA-00-00-DR-A-1401/03, NPS-FTA-00-00-DR-A-1402/02, NPS-FTA-00-00-DR-A-1403/02, NPS-FTA-00-00-DR-A-1602/02, NPS-FTA-00-00-DR-A-1603/01, NPS-FTA-00-00-DR-A-1630/03, NPS-FTA-B00A-GF-DR-A-2101/03, NPS-FTA-B00A-ZZ-DR-A-5001/02, NPS-FTA-B00A-ZZ-DR-A-5002/02, NPS-FTA-B00A-ZZ-DR-A-5003/02, NPS-FTA-B00T-GF-DR-A-2101/04, NPS-FTA-B00T-GF-DR-A-2201/04, NPS-FTA-B00T-LR-DR-A-2102/04, NPS-FTA-B00T-ZZ-DR-A-3201/04, NPS-FTA-B00T-ZZ-DR-A-3202/04, NPS-FTA-B00T-ZZ-DR-A-3303/04, NPS-FTA-B00T-ZZ-DR-A-4201/04, NPS-FTA-B00T-ZZ-DR-A-4202/04, NPS-FTA-B00T-ZZ-DR-A-4401/02, NPS-FTA-B00T-ZZ-DR-A-4501/02, NPS-FTA-B00T-ZZ-DR-A-4801/03, NPS-FTA-B00T-ZZ-DR-A-4901/03, NPS-FTA-B00T-ZZ-DR-A-6001/03, NPS-FTA-B00T-ZZ-DR-A-6002/03, NPS-FTA-B00T-ZZ-DR-A-9001/03, NPS-FTA-B00T-ZZ-DR-A-9002/03	19/12/2024

We have reviewed the submitted architectural plans as tabulated above for compliance with the deemed-to-satisfy provisions of the Building Code of Australia 2022. Where compliance with the deemed to satisfy provisions is not possible a schedule of performance solutions will be required. We have made every attempt to cover the main issues under Sections B, C, D, E, F, G, I & J of the Building Code of Australia. Areas of the design are still being refined so that resolution will be possible prior to the issue of a Construction Certificate (CC) / Crown Design Verification Certificate (CDVC) for the works.

It is the responsibility of all designers and engineers to ensure that the design complies with the requirements of the Building Code of Australia, the Australian Standards and the applicable legislation. This report does not infer compliance of the design at this stage of documentation. Further assessment will be required to validate the full compliance of the building design.

This report does not assess the impact of the Disability Discrimination Act (DDA), which is outside the scope of the BCA, nor does it include compliance with Part D4, E3D8, F4D5, F4D6 or F4D12 of the BCA. Refer to the Access Consultant's Report for DDA compliance. Any Access design amendments or additional information is to be addressed prior to the issue of a CC / CDVC.

This report is for the exclusive use of the client and cannot be used for any other purpose without prior permission from Philip Chun BC NSW Pty Ltd. The report is valid only in its entire form. Philip Chun accepts no responsibility for any loss suffered as a result of any reliance upon such assessment or report other than as being accurate at the date the report was issued.

1.1 Proposed Activity Description

The proposed activity for upgrades to Northmead Public School includes:

- One (1) new single storey classroom building comprising of four (4) general learning spaces (GLS), two (2) special program spaces, a singular learning commons space and a singular multi-purpose space;
- Minor internal alterations to an existing Admin Building (known as Building A); and
- Removal of existing portable classroom buildings containing six (6) classrooms.

1.2 Activity Site

The project site is located at 52A Moxhams Road, Northmead and is legally described as:
- Lot 1 DP 366405;
- Lot 1 DP 176742;
- Lot 1 DP 20061; and
- Lot 1 DP 209810.

Northmead Public School is located on the southern side of Moxhams Road and on the western side of Kleins Road.

Figure 1 is an aerial photograph of the site.

Figure 1: Aerial Photograph

1.3 Mitigation Measures

Table 1 – Mitigation Measures			
Mitigation Number / Name	**When is Mitigation Measure to be complied with**	**Mitigation Measures**	**Reason for Mitigation Measure**
Design	Prior to issue of the Construction Certificate / Crown Design Verification Certificate for the works.	Areas of the design are still being developed and the items identified within the report are to be addressed prior to issue of the CC / CDVC for the works, however, please note that environmental impacts of the development activity are not applicable to the Building Code of Australia 2022 assessment.	Building Code of Australia Compliance.

1.4 Evaluation of Environmental Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development from a Building Code of Australia perspective, it is determined that:

• Potential impacts can be appropriately mitigated or managed / addressed to ensure that there is minimal effect on the environment.

2.0 List of Potential Fire Safety and Other Performance Solutions

The following list has been compiled based on a desktop review of the architectural plans submitted to date and are highlighted throughout the body of this report against the relevant BCA 2022 DtS Provisions in red. Items are still being developed at this stage and will need reassessment with respect to justification of performance solutions and further assessment as the design changes and progresses. Coordination with the design team will be needed to determine if the intent is to propose a DtS solution or if a fire engineered solution is preferred.

BCA Reference	Details of Non-compliance
D3D25 - Swinging doors	All exit/entry doors to Building T must swing outwards. Architect to amend or otherwise be justified by fire engineering.

Areas outside fire safety that may have possible variances from the deemed to satisfy provisions and hence addressable by performance solutions that may also need to be considered are as follows: -

BCA Reference	Details of Non-compliance
F3P1 - Weatherproofing	A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause — (a) unhealthy or dangerous conditions, or loss of amenity for occupants; and (b) undue dampness or deterioration of building elements.

Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements F3P1 is satisfied by complying with the DtS prescriptive requirements of F3D2 to F3D5. Please note that CFC Cladding is not prescribed under DtS and must be addressed via Performance Solution.

3.0 Building Assessments

Classes and use and type of construction of the buildings are as follows:

BCA Parameters – New Building T	
BCA Classifications	Class 9b School Classroom Building
Rise in Storeys (RIS)	1
Effective Height	0m
Type of Construction	C
Floor Area	Approximately 618m^2
Structural Importance Level	Structural Engineer to confirm

BCA Parameters – Administration Building A	
BCA Classifications	Class 5 School Administration and Class 9b Tech Hub / Classroom Building (Storage areas are considered ancillary as they are less than 10% of the floor area of the building)
Rise in Storeys (RIS)	1
Effective Height	0m
Type of Construction	C
Floor Area	665m^2
Structural Importance Level	Structural Engineer to confirm

Building Classifications

The following BCA Classifications are considered applicable to the proposed works based on the classification and use of the building.

Class 9 buildings

A Class 9 building is a building of a public nature and includes the following sub-classifications:

a. Class 9a — a health-care building including any parts of the building set aside as laboratories, and includes a health-care building used as a residential care building.
b. Class 9b — an assembly building including a trade workshop or laboratory in a primary or secondary school.
c. Class 9c — a residential care building.

Class 9b buildings are assembly buildings which include schools.

Class 5 buildings

A Class 5 building is an office building used for professional or commercial purposes.

4.0 Structure

Clause	Description	Requirement	Assessment
SECTION B			
Section B	Structure	Structural provisions	The structural components of the buildings must comply with the applicable Australian Standards. A structural engineer will need to ensure the structural requirements of BCA Clauses B1D2, B1D3, and B1D4 are considered in the building designs and works (including the importance level of the buildings). This will mean assessment according to all relevant parts of Section B of the Building Code of Australia and where any provisions cannot be met, a performance solution to be formulated for consideration of the relevant project stakeholders. Under Part B1D1 of the Building Code of Australia (BCA), buildings or structures must be designed to withstand loads including earthquake loads in accordance with AS1170.1-2002, AS1170.2-2021, AS1170.4-2007, as appropriate. Whilst earthquake loads have obvious implications to the structural design of a building or structure and any alterations to structural elements within an existing building or structure, it is important to note that within AS1170.4-2007, there is also an obligation for certain non-structural parts, components and their connections to be designed & constructed to withstand earthquake loads. Structural Engineer to note the requirements for the works prior to issue of a CC / CDVC. Compliance is readily achievable. Structural design and certification required prior to the issue of the CC / CDVC for the works.

5.0 Fire Resistance

<table>
<tr><th>Clause</th><th>Description</th><th>Requirement</th><th>Assessment</th></tr>
<tr><td colspan="4">SECTION C – FIRE RESISTANCE</td></tr>
<tr><td>C2D2</td><td>Type of construction required</td><td>Type C construction is required.
Refer to Appendix A of this report for specific FRLs applicable to these buildings.</td><td>Structural Engineer to note the requirements for the development in accordance with the requirements of Specification 5.

Compliance readily achievable. Details demonstrating compliance must be provided with the application for CC / CDVC.</td></tr>
<tr><td>C2D11</td><td>Fire hazard properties</td><td>All new surface finishes, assemblies and linings are to comply with BCA Clause C2D11 and Specification 7 including NSW variations with regard to Fire Hazard Properties of various finishes and materials within the building.</td><td>Compliance can be readily achievable. All new floor, wall and ceiling details to be provided demonstrating compliance with Specification 7 prior to issue of a CC / CDVC.</td></tr>
<tr><td>C3D3</td><td>General floor area and volume limitations</td><td>The tables below depict the floor area and volume limitations applicable for Type A and C construction.

<table><tr><td>Classification</td><td>Type C Construction</td></tr><tr><td rowspan="2">Class 5, 9b or 9c</td><td>Max floor area – 3,000m2</td></tr><tr><td>Max volume – 18,000m2</td></tr></table></td><td>Compliance is readily achievable.</td></tr>
<tr><td>C3D13</td><td>Separation of equipment</td><td>Equipment comprising of lift motors, lift control panels, emergency generators, central smoke control plant, boilers or a battery or batteries installed in the building that have a total voltage exceeding 12 volts and a storage capacity exceeding 200kWh must be constructed with an FRL in accordance with Spec 5 but not less than 120/120/120 and any doorway protected with a self-closing fire door having an FRL of not less than -/120/30.</td><td>Services engineer or architect to confirm if at all applicable prior to issue of any CC / CDVC.</td></tr>
<tr><td>C3D14</td><td>Electricity supply system</td><td>An electricity substation or main switchboard that sustains emergency equipment operating in the emergency mode located within a building must be separated from other parts of the building by construction having an FRL of not less than 120/120/120, and doorways in that construction to be self-closing fire doors with an FRL of not less than -/120/30.</td><td>Designers to note and confirm if at all applicable. A MSB Room / cupboard sustaining emergency equipment must be fire-separated by FRL 120/120/120 construction. If applicable, details demonstrating compliance must be provided with the application for CC / CDVC.</td></tr>
</table>

6.0 Access and Egress

Clause	Description	Requirement	Assessment
SECTION D – ACCESS AND EGRESS			
D2D3	Number of exits required	In Class 9 buildings, a minimum of 2 exits must be provided from: a. Any storey used as a Class 9b early childhood centre. b. Each storey in a primary or secondary school with a rise in storeys of 2 or more. c. Any storey or mezzanine that accommodates more than 50 persons, calculated under D2D18.	Complies. Access to 2 exits / points of egress to open space is provided.
D2D5	Exit travel distances	No point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m.	Travel distances are within DtS limits and comply.
D2D6	Distance between alternative exits	Exits used as alternative means of egress must be no closer than 9m apart and no more than 60m apart. Alternate paths must also not converge to less than 6m apart.	Distances between exits within the buildings are within DtS limits and comply.
D2D15	Discharge from exits	An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it. Where required exit leads to open space, path of travel to the road must be minimum 1m or the minimum width of the required exit. Also, the path of travel to the road must have a gradient not steeper than 1:8 or 1:14 where required by Part D4 of the BCA2022.	Compliance is readily achievable.
D2D23	Egress from primary schools	Every part of a Class 9b primary school must be wholly within a storey that provides direct egress to a road or open space. The requirements of the above do not apply to a building with a rise in storeys of 4 or less, where the primary school is the only use in that building.	Design complies.

Clause	Description	Requirement	Assessment
D3D8	Installation of exits and paths of travel	Services or equipment must be enclosed with non-combustible construction and suitably sealed against smoke spreading from the enclosure where they are installed in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit and the service or equipment comprises of: a) electricity meters, distribution boards or ducts; or b) central telecommunications distribution boards or equipment; or c) electrical motors or other motors serving equipment in the building.	Architect and service consultants to note requirements – further details required to ensure compliance prior to the issue of a CC / CDVC.
D3D14 – D3D22	Construction of stairways, balustrade and handrails	The construction and discharge of stairs, landings, thresholds, balustrades, and handrails will need to meet the requirements of the BCA and AS1428.1.	Architect to note. Further details are required to ensure compliance prior to the issue of a CC / CDVC.
D3D24	Doorways and doors	A power-operated door in a required exit must be able to be opened manually under a force of not more than 110N if there is a malfunction or failure of the power source and where it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door.	If applicable, all new doors to comply. Architect to note. Further details required to ensure compliance prior to the issue of a CC / CDVC.
D3D25	Swinging doors	A swinging door in a required exit or forming part of a required exit must swing in the direction of egress unless it serves a building or part with a floor area not more than 200m2, it is the only required exit from the building or part and it is fitted with a device for holding it in the open position.	All exit/entry doors to Building T must swing outwards. Architect to amend or otherwise be justified by fire engineering.
D3D26	Operation of latch	All doors in an exit, forming part of the exit or in the path of travel to the exit must be openable without a key from the egress side by a single hand downward action or single hand push action installed in accordance with this part of the BCA.	Architect to note. Further details required to ensure compliance prior to the issue of a CC / CDVC. All new work within Admin Building A must comply with current BCA 2022 requirements. It was noted during a site inspection that the door hardware throughout Admin Building A was non-compliant.
Part D4	Access for people with a disability	Access for people with a disability	Refer to the Access Consultant's Report for DDA compliance.

7.0 Services and Equipment

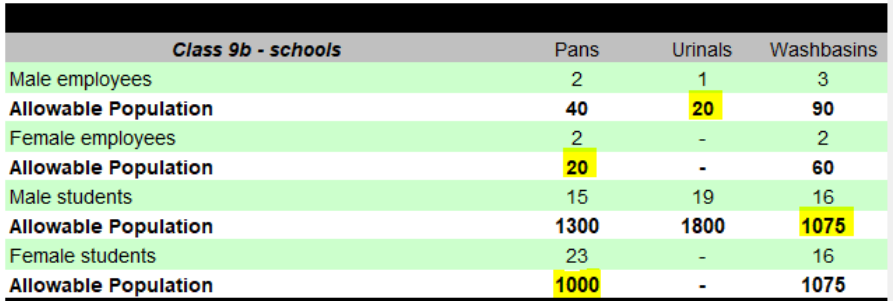
Clause	Description	Requirement	Assessment
SECTION E – SERVICE AND EQUIPMENT			
E1D2	Fire Hydrants	A fire hydrant system must be provided to serve a building— a. having a total floor area greater than 500 m^2; and b. where a fire brigade station is— i. no more than 50 km from the building as measured along roads; and ii. equipped with equipment capable of utilising a fire hydrant. The fire hydrant system must be installed in accordance with AS 2419.1-2021.	Both buildings have a floor area greater than 500m^2. Hydraulic / wet fire services consultant to provide details for assessment including a single line diagram to demonstrate compliant coverage. Details to be provided prior to the issue of a CC / CDVC.
E1D3	Fire hose reels	A fire hose reel system must be provided— a. to serve the whole building where one or more internal fire hydrants are installed; or b. where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m^2. Fire hose reels are required to serve the entire building (except for Class 5 Office / Admin areas, classrooms and associated corridors in a primary / secondary school where portable fire extinguishers can be provided in lieu) having 36m hose length and 4m water spray. They are to be located within 4m of an exit and adjacent to an internal fire hydrant. They must be designed and installed in accordance with Clause E1D3 of BCA2022 & AS2441- 2005.	Fire hose reel coverage is not required to classrooms and associated corridors where fire extinguishers are provided in lieu.
E1D14	Portable fire extinguishers	PFE's are required to be located throughout the building in accordance with Clause E1D14 of BCA2021. PFE's are to comply with AS2444-2001.	Compliance readily achievable. Hydraulic / wet fire services consultant to provide details for assessment. Details to be provided prior to the issue of a CC / CDVC.
E2D16	Smoke hazard management Class 9b – all assembly	A building or part of a building used as an assembly building must be provided with automatic shutdown of any air-handling system (other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems	Automatic shutdown of air-handling systems must be provided. Services consultants to note. Details demonstrating compliance to be provided with the application for CC / CDVC.

Clause	Description	Requirement	Assessment
	buildings	installed in accordance with Sections 5 and 6 of AS 1668.1) which does not form part of the smoke hazard management system, on the activation of— a. smoke detectors installed complying with S20C6; and b. any other installed fire detection and alarm system, including a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17.	
E4D2 - E4D6, E4D8	Visibility in an emergency, exit signs and warning systems	Emergency lighting, exit and directional signs are to be located, designed and installed in accordance with Part E4 of BCA 2022 and AS2293.1-2018.	Compliance readily achievable. Electrical consultant to provide details for assessment. Details to be provided prior to the issue of a CC / CDVC. All new work within Admin Building A must comply with current BCA 2022 requirements. It was noted during a site inspection that emergency and exit lighting was not currently installed in the building.

8.0 Health and Amenity

Clause	Description	Requirement	Assessment
SECTION F – HEALTH AND AMENITY			
F1D3	Stormwater drainage	Stormwater drainage must be designed and constructed in accordance with AS/NZS 3500.3.	Civil / hydraulic engineering design details demonstrating compliance to be provided with the application for CC / CDVC.
F1D6	Damp-proofing	Moisture from the ground must be prevented from reaching the structure by installation of damp-proof course or impervious sheet material in accordance with AS3660.1 where required.	Architectural and structural engineering details demonstrating compliance to be provided with the application for CC / CDVC.
F1D7	Damp-proofing of floors on the ground	(1) If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapor barrier in accordance with AS 2870. (2) The requirements of (1) do not apply where— (a) weatherproofing is not required; or (b) the floor is the base of a stair, lift or similar	Designers and consultants to note. Details demonstrating compliance to be provided with the application for CC / CDVC.

Clause	Description	Requirement	Assessment
		shaft which is adequately drained by gravitation or mechanical means.	
F1D8	Subfloor ventilation	(1) Subfloor spaces must— (a) be provided with openings in external walls and internal subfloor walls in accordance with Table F1D8 for the climatic zones given in Figure F1D8; and (b) have clearance between the ground surface and the underside of the lowest horizontal member in the subfloor in accordance with Table F1D8.	Designers and consultants to note. Details demonstrating compliance for any subfloor spaces between the ground surface must be provided with the application for CC / CDVC.
F3D2	Roof coverings	A roof must be covered with— a. roof tiles complying with AS 2049, fixed in accordance with AS 2050; or b. metal sheet roofing complying with AS 1562.1; or c. plastic sheet roofing designed and installed in accordance with AS 1562.3; or d. terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or e. an external waterproofing membrane complying with F1D5.	Designers and consultants to note. Details demonstrating compliance to be provided with the application for CC / CDVC.
F3D5	Wall cladding	External wall cladding must comply with one or a combination of the following: a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700. b) Autoclaved aerated concrete: AS 5146.3. c) Metal wall cladding: AS 1562.1.	Designers and consultants to note. Details demonstrating compliance to be provided with the application for CC / CDVC. Note that the proposed CFC external cladding is only permitted via Performance Solution as below. A Performance Solution addressing Performance Requirement F3P1 below must be provided for any wall cladding systems not listed in BCA 2022 F3D5. F3P1 - A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause — (a) unhealthy or dangerous conditions, or loss of amenity for occupants; and (b) undue dampness or deterioration of building elements.
F4D4	Facilities in Class 3 to 9 buildings	Sanitary facilities must be provided in accordance with this clause.	There is no proposed increase to staff or student numbers as the activity replaces existing portable classrooms with a permanent building. Note the current facilities identified on plan can cater for a max school population of 2000 students (1000 male + 1000 female) and 40 staff (20 male + 20 female).

Clause	Description	Requirement	Assessment
			
F4D5 F4D6	Accessible sanitary facilities	Accessible unisex sanitary compartments must be provided in accessible parts of the building.	Refer to Access Report to ensure compliance prior to issue of any CC / CDVC.
F5D2	Height of rooms and other spaces	The height of rooms and other spaces in a Class 9b building must be not less than— a. for a school classroom or other assembly building or part that accommodates not more than 100 persons — 2.4 m; and b. for a theatre, public hall or other assembly building or part that accommodates more than 100 persons — 2.7 m; and c. for a corridor— i. that serves an assembly building or part that accommodates not more than 100 persons — 2.4 m; or ii. that serves an assembly building or part that accommodates more than 100 persons — 2.7 m.	Compliance is readily achievable.
F6D2	Provision of natural light	Natural light must be provided in: a. A Class 9b building — to all general purpose classrooms in primary or secondary schools and all playrooms or the like for the use of children in an early childhood centre.	Compliance is readily achievable.
F6D3	Methods and extent of natural light	Required natural light must be provided by— a. windows, excluding roof lights, that— i. have an aggregate light transmitting area measured exclusive of framing	

Class 9b - schools	Pans	Urinals	Washbasins
Male employees	2	1	3
Allowable Population	**40**	**20**	**90**
Female employees	2	-	2
Allowable Population	**20**	**-**	**60**
Male students	15	19	16
Allowable Population	**1300**	**1800**	**1075**
Female students	23	-	16
Allowable Population	**1000**	**-**	**1075**

Clause	Description	Requirement	Assessment
		members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and ii. are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or b. roof lights, that— i. have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and ii. are open to the sky; or c. a proportional combination of windows and roof lights required by (a) and (b).	
F6D5	Artificial Lighting	Artificial lighting must be provided to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. The artificial lighting system must comply with AS/NZS 1680.0.	Electrical consultant to provide details for assessment. Details to be provided prior to the issue of a CC / CDVC.
F6D6	Ventilation of rooms	A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have natural ventilation complying with F6D7; or a mechanical ventilation or air-conditioning system complying with AS 1668.2 and AS/NZS 3666.1.	Mechanical consultant to provide details for assessment. Details to be provided prior to the issue of a CC / CDVC.

9.0 Ancillary Provisions

Clause	Description	Requirement	Assessment
SECTION G – ANCILLARY PROVISIONS - PART G5 CONSTRUCTION IN BUSHFIRE PRONE AREAS			
G5D2	Application of part	The Deemed-to-Satisfy Provisions of this Part apply in a designated bushfire prone area 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 located in an area subject to a Bushfire Attack Level (BAL) not exceeding BAL—12.5, determined in accordance with Planning for Bush Fire Protection; or d. a Class 10a building or deck immediately adjacent or connected to a building or part of a type in (a), (b) or (c).	As the buildings are Class 9 buildings that are of a special fire protection purpose, please refer to the Development Consent / Review of Environmental Factors and Bushfire Risk Assessment Report to confirm if the proposed works are within a Bushfire Prone Area and construction requirements as it appears that the proposed building is within vicinity of bushfire prone land.
G5D4	Protection – certain Class 9 buildings	In a designated bushfire prone area the following must comply with Specification 43: a. A Class 9a health-care building. b. A Class 9b— i. early childhood centre; or ii. primary or secondary school. c. A Class 9c residential care building. In a designated bushfire prone area, a Class 10a building or deck immediately adjacent or connected to a building of a type listed in (1) must comply with S43C2 and S43C13.	

10.0 Energy efficiency

Clause	Description	Requirement	Assessment
SECTION J ENERGY EFFICIECNY			
Section J	Energy Efficiency provisions	Energy efficiency provisions	Proposed works will be required to be compliant with the energy efficiency requirements under Section J of the BCA 2022. A Section J consultant's report will need to be provided to confirm compliance with the BCA DtS provisions or a J1V3 report must be submitted demonstrating compliance prior to the issue of the CC / CDVC. The building is in Climate Zone 6. Please note that infrastructure and provisions for future solar panel and EV chargers may be required for Building T as per Part J9D5 subject to the Section J Consultant's advice.

11.0 Conclusion

We have assessed the drawings with respect to the Building Code of Australia 2022. We are confident that the design is generally capable of meeting the Deemed-to-Satisfy and Performance Requirements of the Building Code of Australia 2022 except where noted within sections of this report. Areas of the design are still being developed and are to be addressed prior to issue of the CC / CDVC for the works.

APPENDIX A – FIRE RESISTANCE OF BUILDING ELEMENTS

TYPE C FIRE-RESISTING CONSTRUCTION – FIRE-RESISTANCE OF BUILDING ELEMENTS

Tables S5C24a: Type C Construction: FRL of parts of external walls				
Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5m to less than 3m	-/-/-	60/60/60	60/60/60	60/60/60
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
Table S5C24b: Type C Construction: FRL of external columns not incorporated into an external wall				
Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	90/-/-	90/-/-	90/-/-	90/-/-
1.5m to less than 3m	-/-/-	60/-/-	60/-/-	60/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
Table S5C24c: Type C Construction: FRL of common walls and fire walls				
Wall Type	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing or Non-loadbearing	90/90/90	90/90/90	90/90/90	90/90/90
Table S5C24d: Type C Construction: FRL of internal walls				
Location	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Bounding public corridors, public lobbies and the like	60/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units	60/60/60	-/-/-	-/-/-	-/-/-
Bounding a stair if required to be rated	60/60/60	60/60/60	60/60/60	60/60/60
Table S5C24e: Type C Construction: FRL of roof				
Location	FRL (in minutes): *Structural adequacy/ integrity / insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Roofs	-/-/-	-/-/-	-/-/-	-/-/-

APPENDIX B – MARK UPS

NORTHMEAD PUBLIC SCHOOL

FOR SCHOOL INFRASTRUCTURE NSW

7068ND01

Scope of Mark Up :
High Level Comments

Type of Mark Up : For information only

Date : 14/01/2021 Mark Up By : SS

Notes on design :
The document mark up is for information only and is based on the documentation provided to Philip Chun. Philip Chun takes no responsibility for the correctness of the provided documentation. Philip Chun have assessed the design at high level only in accordance with the BCA and have not assessed the design to the relevant Australian Standards nor the brief. It is the responsibility of the designers to ensure the design fully complies with the BCA, Australian Standards and the brief.

Preliminary
Review Only

									Drawing Name	Rev
NPS	FTA	XX	XX	DR	A	0000			COVER SHEET + DRAWING LIST	04
NPS	FTA	XX	XX	DR	A	0001			SPECIFICATIONS SCHEDULE & MATERIAL SELECTIONS	03
NPS	FTA	00	00	DR	A	1001			EXISTING SITE PLAN	04
NPS	FTA	00	00	DR	A	1002			DEMOLITION PLAN	03
NPS	FTA	00	00	DR	A	1003			SITE ANALYSIS PLAN	03
NPS	FTA	00	00	DR	A	1101			PROPOSED SITE PLAN	04
NPS	FTA	00	00	DR	A	1201			SITE SECTIONS	02
NPS	FTA	00	00	DR	A	1401			EXTERNAL WORKS PLAN	03
NPS	FTA	00	00	DR	A	1402			PROPOSED COVERED WALKWAY	02
NPS	FTA	00	00	DR	A	1403			PROPOSED COVERED WALKWAY - ROOF	02
NPS	FTA	00	00	DR	A	1501			PROPOSED STAGING PLAN 01	03
NPS	FTA	00	00	DR	A	1502			PROPOSED STAGING PLAN 02	03
NPS	FTA	00	00	DR	A	1503			PROPOSED STAGING PLAN 03	03
NPS	FTA	00	00	DR	A	1601			PLAYSCAPE CALCULATION	02
NPS	FTA	00	00	DR	A	1602			AMENETIES STRATEGY	02
NPS	FTA	00	00	DR	A	1603			ACCESS STRATEGY	01
NPS	FTA	00	00	DR	A	1604			TREE REMOVAL PLAN	02
NPS	FTA	00	00	DR	A	1610			INDIGENOUS ARTWORK STRATEGY	03
NPS	FTA	00	00	DR	A	1630			EXTERNAL MATERIAL AND FINISHES	03
NPS	FTA	00	00	DR	A	1640			SHADOW DIAGRAMS	02
NPS	FTA	00	00	DR	A	1650			CONSTRUCTION MANAGEMENT STRATEGY	01
NPS	FTA	B00A	GF	DR	A	2100			BUILDING A - EXISTING GROUND FLOOR PLAN	04
NPS	FTA	B00A	GF	DR	A	2101			BUILDING A - PROPOSED GROUND FLOOR PLAN	03
NPS	FTA	B00R	GF	DR	A	2101			BUILDING R - EXISTING AND PROPOSED GROUND FLOOR PLAN	04
NPS	FTA	B00T	GF	DR	A	2101			BUILDING T - GROUND FLOOR PLAN	04
NPS	FTA	B00T	LR	DR	A	2102			BUILDING T - ROOF PLAN	04
NPS	FTA	B00T	GF	DR	A	2201			BUILDING T - GROUND FLOOR RCP	04
NPS	FTA	B00T	ZZ	DR	A	3201			BUILDING T - ELEVATIONS	04
NPS	FTA	B00T	ZZ	DR	A	3202			BUILDING T - ELEVATIONS	04
NPS	FTA	B00T	ZZ	DR	A	3303			BUILDING T - SECTIONS	04
NPS	FTA	B00T	ZZ	DR	A	4001			BUILDING T - WALL TYPE DETAILS / PARTITION DETAILS	04
NPS	FTA	B00T	ZZ	DR	A	4201			BUILDING T - WALL SECTIONS 01	04
NPS	FTA	B00T	ZZ	DR	A	4202			BUILDING T - WALL SECTIONS 02	04
NPS	FTA	B00T	ZZ	DR	A	4401			BUILDING T - STAIR AND RAMP DETAILS	02
NPS	FTA	B00T	ZZ	DR	A	4501			BALUSTRADE AND HANDRAIL DETAILS	02
NPS	FTA	B00T	ZZ	DR	A	4801			COVERED WALKWAY DETAILS	03
NPS	FTA	B00T	ZZ	DR	A	4901			TYPICAL FASCIA DETAILS	03
NPS	FTA	B00A	ZZ	DR	A	5001			BUILDING A - TECH HUB / PRIINCIPAL ROOM	02
NPS	FTA	B00A	ZZ	DR	A	5002			BUILDING A - DEPUTY PRINCIPAL / AP OFFICE	02
NPS	FTA	B00A	ZZ	DR	A	5003			BUILDING A - STAFF ROOM	02
NPS	FTA	B00T	ZZ	DR	A	6001			EXTERNAL DOOR & WINDOW SCHEDULE	03
NPS	FTA	B00T	ZZ	DR	A	6002			INTERNAL DOOR & WINDOW SCHEDULE	03
NPS	FTA	B00T	ZZ	DR	A	9001			BUILDING T - PERSPECTIVES 1	03
NPS	FTA	B00T	ZZ	DR	A	9002			BUILDING T - PERSPECTIVES 2	03

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ARCHITECTS

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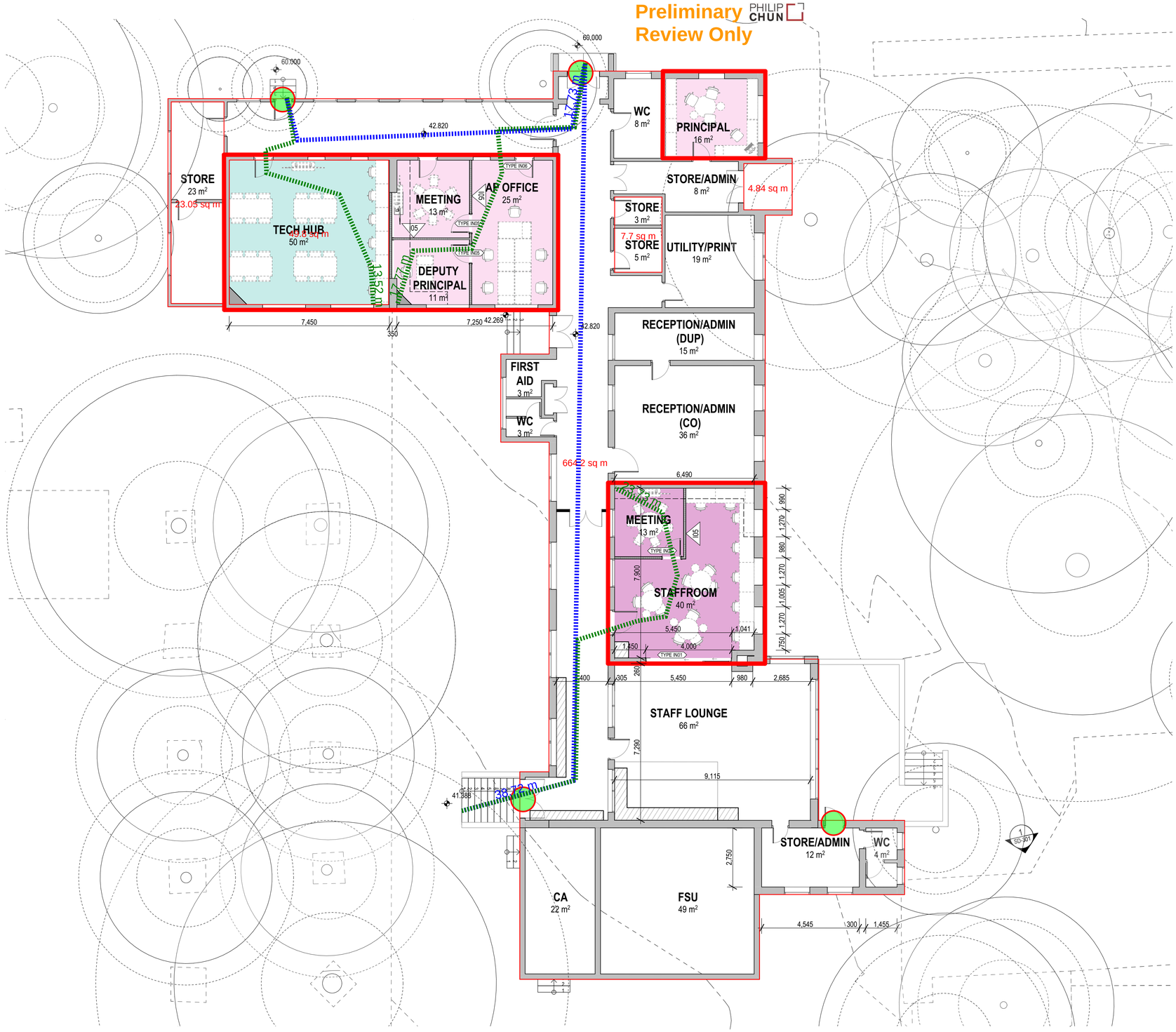
PHILIP CHUN



PLAN LEGEND

D101	DOOR LABEL
W101	WINDOW LABEL
E00	EXTERNAL WALL TYPE LABEL
I00	INTERNAL WALL TYPE LABEL

Scope of Refurbishment Works - Block A

- **Existing Programs Room - AR0025 / Proposed Tech Hub Room**
  - Remove and replace existing flooring
  - Paint and make good existing walls, ceilings, windows and doors
  - Provide new data and power points to suit Tech Hub requirements
  - Remove existing sliding door between AR0025 and AR0024 (adjacent) and replace with partition infill
  - Provide new A/C to the new spaces
  - Additional minor Services and lighting upgrade as required.
- **Existing Programs Room - AR0024 / Proposed Principal's Office and Assistant Principal's Office**
  - Remove and replace existing flooring
  - Paint and make good existing walls, ceilings, windows and doors
  - Provide new partition wall (full height) to divide the space into two equal spaces
  - Create new door opening in the existing all
  - Provide additional Power and Data to the new rooms as required for EFSG compliance
  - Provide new A/C to the new spaces
  - Provide new lighting to suit the new space configuration
  - Additional minor services upgrades as required
- **Existing Tech Hub - AR0009 - Proposed Staff Work Room**
  - Remove and replace existing flooring
  - Remove and cap the majority of the existing power and date points to the perimeter of the room
  - Paint and make good existing walls, ceilings, windows and doors
  - Remove security grilles from existing windows
  - Create new opening between AR0009 and the adjacent Staff Lounge (AR0010) -
    - Provide new aluminium framed glazed door.
    - Allow for associated structure to support new door
  - Provide new A/C to the new spaces
  - Additional minor Services and lighting upgrade as required
- **Existing Staff Lounge - AR0010**
  - Allow to make good walls and flooring following installation of new sliding door connecting to Proposed Staff Work area (AR0009)

1 **PLAN**
BUILDING R GROUND FLOOR - PROPOSED
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
03	100% SCHEMATIC DESIGN	19/12/2024	NK
02	80% SCHEMATIC DESIGN	26/11/2024	AK
01	SD-01 - 50% SCHEMATIC DESIGN	15/11/2024	AK

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PHASE: **SCHEMATIC DESIGN**
CLIENT: SCHOOL INFRASTRUCTURE NSW
PROJECT: NORTHMEAD PUBLIC SCHOOL
ADDRESS: MOXHAMS ROAD, NORTHMEAD, NSW

DRAWING: **BUILDING A - PROPOSED GROUND FLOOR PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068ND01	JW	NK

DRAWING NUMBER: NPS-FTA-B00A-GF-DR-A-2101
REVISION: 03

50 100 150mm @ A1

plot date: Thursday, 19 December 2024 2:46 PM file location: BIMcloud: FTA-SYD-BIM26 - BIMcloud Basic for Archicad 26/7068ND01 Northmead Public School

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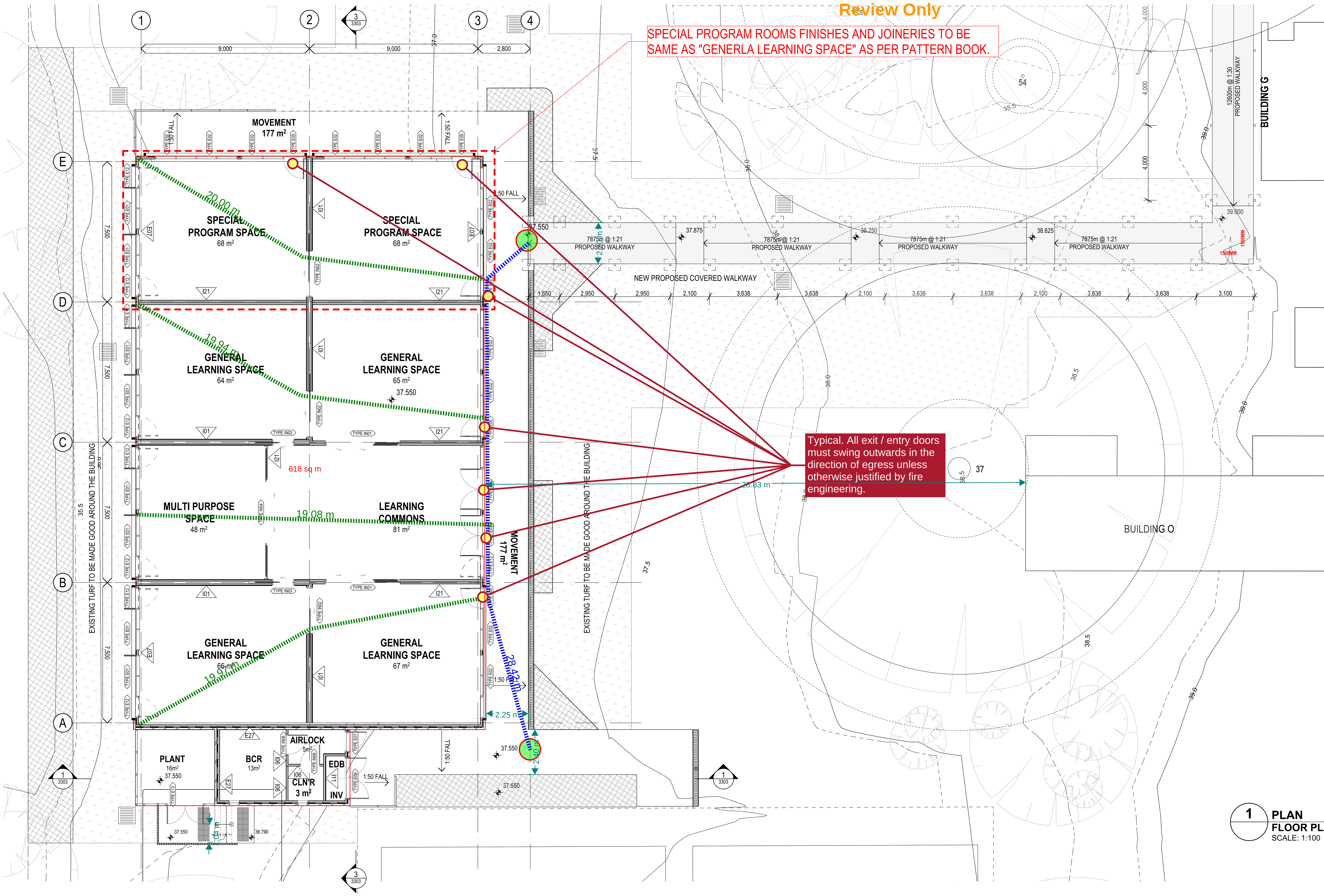

PLAN LEGEND

- DOOR + WINDOW LABEL
- EXTERNAL WALL TYPE LABEL
- INTERNAL WALL TYPE LABEL

1 PLAN
FLOOR PLAN GROUND FLOOR
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
04	100% SCHEMATIC DESIGN	19/12/2024	NK
03	95% SCHEMATIC DESIGN	10/12/2024	AK
02		26/11/2024	
01	SD-01 - 50% SCHEMATIC DESIGN	15/11/2024	AK
P4	100% CONCEPT DESIGN	31/10/2024	NK
P3	80% CONCEPT DESIGN	18/10/2024	AK
P2	FOR INFORMATION	27/09/2024	AK
P1	FOR INFORMATION	20/09/2024	AK

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PHASE: SCHEMATIC DESIGN
CLIENT: SCHOOL INFRASTRUCTURE NSW
PROJECT: NORTHMEAD PUBLIC SCHOOL
ADDRESS: MOXHAMS ROAD, NORTHMEAD, NSW

DRAWING: BUILDING T - GROUND FLOOR PLAN

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER: 7068ND01
DIRECTOR: JW
CHECKED: NK
DRAWING NUMBER: NPS-FTA-B00T-GF-DR-A-2101
REVISION: 04

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