NATIONAL BCA

BCA CAPABILITY REPORT

Manor House Development.
18-28 Simpson Street,
Dundas Valley. NSW.

Building Code of Australia 2022
Vol. 1, Class 2-9 Buildings
Deemed-to-Satisfy Assessment Pursuant to Section 6.28(2) of the Environmental Planning and Assessment Act, 1979.

Prepared for: Kennedy Architects
Project No.: 23089
Date: 1st August,2023.
Status: Preliminary
Version: V2.0-Co-Ordination.

Table of Contents

Contents

LIMITATIONS & EXCLUSIONS

The limitations and exclusion of this report are as follows: -

1. The buildings structural adequacy has not been considered;
2. The design, maintenance or operation of fire safety measures listed in table 6 of the report;
3. Occupational Health and Safety Act Regulations;
4. Work Cover Authority requirements;
5. Requirements of other agencies including but not limited to telecommunication providers, Water/Sewerage authority, Energy providers, State Govt. Agencies i.e., RMS or the local authority;
6. The Disability Discrimination Act (DDA) other than the minimum requirements under the Disability (Access to Premises) Standards 2010;
7. The terms or conditions of the Development Consent;
8. The report although referring to Australian Standards adopted by the BCA, it does not detail the specific requirements of those standards, and
9. The report excludes Section J of the BCA and retaining wall construction.

List of Annexures

Annexure Reference	Annexure Details
A	Code Assessment----BCA 2022
B	Extract -Type B Construction particulars
C	Plan schedule –Drawings dated 5.4.2023
D	Performance solution matrix

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BCA Report----Version 2.0
Manor House Development.
18-28 Simpson Street, Dundas Valley.

1.0 EXECUTIVE SUMMARY.

The residential development, the subject of this report, has been assessed in relation to the available architectural drawings and the applicable deemed to satisfy provisions of the Building Code of Australia.

The assessment has identified matters of a compliance nature that require attention and following their design resolution together with the preparation of architect's drawings to a standard required of a compliance certificate; it is recommended the report be amended accordingly.

There exists an avenue in the application of the Building Code of Australia to sanction by performance solution, a reduction in construction type to permit some flexibility in the form and materials of external wall construction.

Version 2.0 of the report is directed at-

- The assessment of the development under the relevant provisions BCA 2022, and
- For the purpose of assessment utilise the architectural plan set dated 5th April ,2023.

The assessment conducted under BCA 2022 has indicated the development is capable of complying with the relevant aspects of that code.

The building solution to comply with the Building Code of Australia's will not impact on the buildings' external design as proposed in the plans listed in the table to Annexure C hereof.

2.0 INTRODUCTION.

This report is prepared to assist in the preparation of plans and specifications for compliance certification.

For code compliance purposes, the assessment comprises an appraisal under National Construction Code Series, Building Code of Australia 2022 (BCA) for residential development as required under Section 6.28(2) of the Environmental Planning and Assessment Act,1979.

This report is specific in that it relates to the proposed manor house development i.e., the construction of four (4) two level residential buildings together with associated at-grade carparking at 18-28 Simpson Street, Dundas Valley on land comprised in the parcel of lots numbered 1707-1712 in DP 31846.

The development has been assessed in accordance with Clause A2G1(2) of the Building Code of Australia.

The report whilst assessing the development against the 'deemed to satisfy' provisions of the code (BCA) also refer to performance based "alternative "solutions where appropriate.

3.0 REFERENCES

The following documentation was relied upon in the preparation of this report:

- Building Code of Australia 2022, Volume 1 (BCA);
- Environmental Planning and Assessment Act, 1979;
- The Environmental Planning and Assessment Regulation,2021;
- The Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation,2021
- A reference to Sole Occupancy Unit is the abbreviation, SOU; refers to an individual manor house;
- The development site is the parcel of lots 1707 to 1712 in DP 31846;
- Architectural drawings prepared by nominated architect, Kennedy Architects listed in the schedule under Annexure C and dated 5th April,2023.

4.0 DESCRIPTION OF THE DEVELOPMENT.

4.1 Form and Materials of Construction.

The development site when complete is to comprise four(4) allotments.

Each allotment is to support a single building as well as an appurtenant low-level structure on the building line of Simpson Street, the latter of which is for waste reception.

The proposal is to construct on each allotment a two-level building each having in the ordinary sense a height of two (2) storeys that on completion will contain self-contained dwellings, all of which fall under the general description of manor homes.

The development site is designed to contain four(4) manor homes as follows-

Manor Home (MH) Reference N°	Level	Design Accommodation
1	Ground Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
	First Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
2	Ground Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
	First Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
3	Ground Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
	First Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
4	Ground Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.
	First Floor	One × 2-bedroom dwelling. One × 1 bedroom dwelling.

Table 1.

The proposal has provision for carparking for the future occupants of the development in the form of at-grade parking located at the rear of the allotments .

The manor home buildings are of masonry construction with pitched roofs covered with pre-finished profiled metal deck roof sheeting. The pitched roof construction generally terminates in gable ends when viewed from the public road

The buildings construction elements comprise reinforced concrete forms (raft footings/suspended floors), internal loadbearing walls including the inner leaf of the building's external cavity wall construction. The external walls of the development have, above the first-floor line, masonry veneer form and light weight cladding.

4.2 Assumptions.

The following assumptions have been made: -

1. The external wall construction detailed a cavity brickwork adopts traditional practice in that the outer leaf is non-load-bearing and, the cavity is not closed at the upper reaches;
2. The timber stud walls internal to SOUs on Level 1 of the development have or have the potential to be load-bearing, and

3. The waste reception bays are unroofed enclosures.

5.0 BUILDING CHARACTERISTICS

5.1 Fundamental Characteristics

The characteristics of the manor homes have been grouped together given their similarities particularly in regard to design, height, form of construction and orientation of the allotments.

The relevant characteristics permit the undertaking of the initial BCA analysis of the development

Manor Homes 1,2,3 and 4		
Aspect	BCA Provision—Vol 1	Determination
Classification	Part A6G3	Class 2
Rise in Storeys (RiS)	C2D3	2 Storeys
Construction Type	C2D2 and Table C2D2	Type B
Effective Height	Schedule 1-Definitions	Less than 12.0 m
Floor area/volumetric limitations	C3D3 and Table C3D3	Not applicable to class 2 buildings

Table 2.

5.2 Fire Source Features (FSF)

The fire source features that relate to the proposed four(4) manor homes; the following matrix is prepared to establish the building elements (external wall construction) for which their exposure to a fire source feature must be considered.

Manor Home N°	Orientation	FSF	Exposure distance	Reference
1	North	Far boundary line of the road reserve of Simpson Street.	>3.0m	FSF-01
	South	Rear boundary line of the allotment	>3.0m	FSF-02
	East	Side boundary line of the allotment	3.0m	FSF-03
	West	Side boundary line of the allotment	3.0m	FSF-04
	North	Far boundary line of the road reserve of Simpson Street.	>3.0m	FSF-01

2	South	Rear boundary line of the allotment	>3.0m	FSF-02
	East	Side boundary line of the allotment	3.0m	FSF-03
	West	Side boundary line of the allotment	3.0m	FSF-04
3	North	Far boundary line of the road reserve of Simpson Street.	>3.0m	FSF-01
	South	Rear boundary line of the allotment	>3.0m	FSF-02
	East	Side boundary line of the allotment	3.0m	FSF-03
	West	Side boundary line of the allotment	3.0m	FSF-04
4	North	Far boundary line of the road reserve of Simpson Street.	>3.0m	FSF-01
	South	Rear boundary line of the allotment	>3.0m	FSF-02
	East	Side boundary line of the allotment	3.0m	FSF-03
	West	Side boundary line of the allotment	3.0m	FSF-04

Table 3.

6.0 BCA REQUIREMENTS-Summary.

Refer to Annexure A for detailed BCA assessments.

The below table is a summary of the assessment process.

SECTION B- STRUCTURE		
Clause/Part	Description	Comments
Part B1	Structural Provisions.	The building's structural design including the waste reception bays is to be undertaken by a professional engineer. The BCA defines a "professional engineer" under Schedule 1. The relevant design standards and requirements have been specified within Annexure A
SECTION C – FIRE RESISTANCE		
Part C2 - Fire Hazard Properties and Fire-Resistant Construction		
Clause	**Description**	**Comments**
C2D2	Type of construction required	Manor Homes 1,2,3 and 4 are required to be of Type B construction.

C2D10	Non-combustible building elements	▪ The buildings external walls are all to be erected in cavity brickwork which is deemed to be non-combustible as is the pre-finished ribbed sheet metal material that forms as an attachment to the external walls; and ▪ Soffit linings and lightweight cladding components of the external wall construction (FC sheeting) should be of a material that has the benefit of CodeMark Certification which certifies the lining material as being 'non-combustible'.
NSW-C2D11	Fire hazard properties—NSW provisions	▪ Fire hazard properties of floor linings including floor coverings; wall linings, ceiling linings, air handling ductwork (if applicable) must comply with Specification 7; and ▪ Other materials including sarking, insulation and insulation that comprises an assembly of members must comply with NSW Clause 7 of Specification 7.
Part C3 - Compartmentation and separation		
Part C4 – Protection of openings		
NSW C4D12	Bounding construction: class 2 buildings	Doorways located in bounding walls of residential units (SOU's) i.e., their entry doorways must be self-closing, tight fitting, solid core doors of not less than 35mm in thickness. **Note.** The door schedule will require amendment to reflect the above requirements i.e., the doorways are fitted with equipment that when opened and released returns to the closed and latched position.
C4D15	Openings in fire resistant construction for building service installations	Opening for service penetrations not protected by fire rated shafts must comply with this clause and specification C3.15. Penetrations/openings in fire rated systems and construction required to have an FRL must be undertaken in accordance with the test reports/ data sheets prepared for 'fire stopping' products used to ensure the fire resisting performance of the building and its components is not affected. Penetrations for electrical, telecommunications and the like should be avoided in separating walls (Intertenancy walls) and the inner leaf of the external walls. Fire stopping required atop of the internal separating walls and gaps that may occur by

		reason of the roof planes and roof batten placement.
Specification 5	Fire resistance of building elements	Refer to Annexure B for Type B construction requirements
SECTION D		
Part D2 – Provision for escape		
D2D3	Number of Exits Required	Buildings, Manor homes 1-4 comply
D2D7 D2D8 NSW D2D9	Dimension of exits	Stairways to have one (1) metre clear width after taking into consideration the requirements of AS 1428.1 as the building is an accessible building. As all stairways deemed non- fire isolated, handrails are required on each side of all stair flights and so arranged that a clear space of 1.0 m exists between the handrails.
Part D3 - Construction of exits		
D3D8	Installations in exits and paths of travel- • Electrical meters/distribution boards; • Telecommunication equipment/distribution boards; • Electric motors	The ground floor and first floor public spaces of Manor Homes 1,2, 3 and 4 detail the presence of enclosures for “services” and if applicable telecommunication’s (NBN) equipment. The enclosure including the double access doorways are to be constructed from non-combustible materials and the doors suitably sealed to prevent smoke spreading from the enclosure
D3D9	Enclosure of space under stairways	There is no indication on the plans of the development that under stair spaces of the non-fire isolated are to be enclosed to form cupboards. The formation of cupboards below stair flights is not permitted unless the enclosed space is constructed to meet specific fire-resistant standards as follows: - • The enclosing walls and ceilings are to obtain an FRL of 60/60/60, and • The access doorway to the enclosed space is required to be fitted with a self-closing-/60/30 fire door. **Note.** The door schedule will require amendment to reflect the above requirement i.e., the doorways are fitted with equipment that when opened and released returns to the closed and latched position
D3D14	Stairs-goings and risers	Stairways are required to have-

		• Constant goings and risers throughout their flights; • Goings (G), and risers (R), are to comply with the geometrical specifications of Table D2.13 and the quantity calculation 2R + G (max. 700mm/min 550mm); • Openings between consecutive risers not to exceed 125mm and infilled with opaque construction; • Treads are to have slip resistance classification of Table D3D15 and nosings of suitable colour contrast. **Notes:** 1. Stairway configuration to be designed in accordance with figure 28 of AS 1428.1-2009 to avoid vertical handrail sections; and 2. Stair /handrail construction to comply with- a) AS 1170.1-2002; and b) Clause 11 of AS 1428.1-2009.
D3D17 D3D18 D3D19 D3D20	Balustrades/barriers	Balustrades/barriers complying with this clause will be required for stairs/ balconies and other areas where the level above the surface beneath is more than 1m. Balcony mounted AC units (if applicable) are to be located without compromising the balcony's barrier construction by providing 'footholds' and or a scalable element.
D3D26	Operation of latch-exits	Doors in required exits or doors in the path of travel (basement part/ lobbies/rooms in common usage etc.) must be readily openable by a single handed downward or push action on a single device which is located between 900 mm and 1200 mm from the floor. As the buildings are required to be accessible, door furniture/hardware must be suitable for persons who cannot grip.
D3D29	Protection of openable windows-Level 1	Openable windows to the class 2 (SOU'S) must comply with the provisions of this clause either by screens or window opening limiters Refer to comments under Annexure A
Part D4 - Access for people with a disability standard and the BCA		
Refer to Access Report		
SECTION E		
Part E1 – Fire-fighting equipment		

E1D2	Fire hydrants	The individual buildings (MH 1-4) of the development have a total floor area less than 500m² . Fire hydrants not required
E1D3	Fire hose reels	NA
E1.6	Portable Fire Extinguishers	Portable fire extinguishers required
Part E2 – Smoke Hazard Management		
E2D2 E2D8	Smoke hazard management	The buildings all require the installation throughout of an automatic fire detection and alarm system complying with Specification 20- 1. Clause S20C2 and Clause S20C5 of Specification 20 are appropriate avenues to comply with fire detection and alarm system requirements; and 2. A Building Occupant Warning System (BOWS) that complies with clause S20C7.
Part E4-Visibility in an emergency, exit signs and warning systems		
E4D2 E4D5	Exit/Emergency lighting	Exit signs and emergency lighting to comply with Part E4 and AS 2293.1-2018.
SECTION F6 Health and amenity		
F6D2	Provision of natural light	In habitable rooms of residential floors - window glazing area must be at least 10% of floor area.
NSW F6D6	Ventilation of rooms	In habitable rooms of residential floors - Openable window area of at least 5% of floor area is provided. Mechanical ventilation is required for wet areas within SOU without natural ventilation
Part F7	Sound transmission requirements	Refer to Annexure A for requirements for the building's residential parts.
Part F8	Condensation management	Refer to Annexure A for details on exhaust system requirements for kitchens, bathrooms laundries and WC compartments where such installations are necessary to meet ventilation requirements
SECTION J		
Report required.		
OTHER MATTERS		
The Construction certificate should: - • Be accompanied by a full architect's specification that meets and complies with the Australian National Building Specification System. • The use of fibre cement infill cladding that is to form part of the building's external wall construction requires compliance with Performance Requirements-		

a) C1P2 non-combustibility, & b) Weartherproofing-F3P1

Table 4.

7.0 BCA--Matters for Consideration-Fire Safety and Other.

The structure of the report follows a procedure where the development has been subjected to a clause-by-clause assessment of the code provisions that are considered relevant.

The development comprises multiple buildings i.e., four manor home buildings numbered 1,2, 3 and 4.

There exists similarities in the building design, height and construction; the detailed assessment is at Annexure A.

The below table details a number of matters that are relevant to fire resistance and sound transmission requirements.

Element	Manor Homes	BCA DtS Provision	BCA Requirement	Requirement
External elements-Combustibility	All	C2D10	Non-combustible materials	External walls, facades and including infill fibre cement cladding. Note 1
External ancillary elements- Combustibility	All	C2D14	Non-combustible materials	Awnings at building entries are to be fabricated from non-combustible materials
External ancillary elements-Weatherproofing	All	Performance Requirement F3P1	Weatherproofing of external walls	Sections of the external walls that comprise fibre cement sheeting are to resist water entry into the inner parts of the buildings. Note 1.
FRL---Internal wall-loadbearing between SOUs and the public lobbies. (Shaft walls)	All	Table S5C21e and Table S5C21f of Specification 5 and clause S5C3 of	FRL 60/60/60	FRL to be confirmed in accordance with Specification 1

		Specification 5		
		Clause S5C3(1)(b) of Specification 5	Fire performance of walls that are required to be fire resisting	Elements of the construction providing lateral support to fire resisting walls , provided the wall is supported on both sides and failure of the element on one side does not affect the fire performance of the wall
		Clause S5C21(1) (c) of Specification 5	Extent of internal walls required to have a FRL.	Walls must extend to- a) the underside of the level 1 floor, and b) the underside of non-combustible roof covering and not crossed by timber or combustible elements, the exception being roof battens and sarking-type materials
FRL---Inner leaf of the external walls- Ground floor to level 1	All	Clause S5C3(1)(b) of Specification 5	FRL 60/-/-	FRL to be confirmed in accordance with Specification 1.
FRL—Suspended, intermediate floor, Level 1 throughout the development	All	Clause S5C21 (1) (f)(i) of Specification 5	Fire resistance of level 1 floor slab to have an FRL equivalent to a floor /ceiling system RISF of not less than 60 minutes	Advise structural engineer of required FRL- Not less than 60/60/60. FRL to be confirmed in accordance with Specification 1.
Sound transmission- Walls separating SOUs from public areas within the buildings.	All	F7D6	R_W not less than 50	**********

(Shaft walls)				
Sound transmission- Intermediate floors	All	F7D5	$R_W + C_{TR}$ (airborne) not less than 50 and an $Ln,_W$ of not more than 62	*********

Table 5.

Note 1: The use of fibre cement sheeting of the kind specified in the plans have Codemark Certification for both non-combustibility and weatherproofing.

8.0 BCA ASSESSMENT COMMENTS.

The design of the development has been assessed against the relevant Deemed to Satisfy (DtS) provisions of the Building Code of Australia.

Arising from the assessment, a number of matters relative to the development are provided below-

a) The assumptions made under Section 4.2 above are to be acknowledged;

b) Within the clause-by-clause assessment of Annexure A as well as Section 6, **notes** have been provided for assistance;

c) The internal walls referred to as 'shaft walls' that separate one dwelling from public areas should be detailed in relation to: -

(i) Fire stopping requirements immediately below the roof covering In the situation where the roof framing is parallel to the internal wall; and

(ii) Fire stopping in the case where roof framing is at right angles to the internal wall;

(iii) Elements of construction that are permitted to cross the internal walls; and

(iv) The support of roof and ceiling construction.

d) In relation to Assumption 2 under Section 4.2 above, the use of timber framing as a load-bearing element is permitted under the concessional provisions of Specification S5C23(1)(a) subject concurrence;

e) The fire resistance levels of internal wall construction documented in table 5 above are confirmed by a Professional Engineer;

f) The developments cavity wall construction (external wall as appropriate) should be detailed to include: -

(i) Wall ties;
(ii) Dampproof course;
(iii) Raft slab interface, slab 'toe 'and vapour barrier insertion;
(iv) Flashings;
(v) Cavity drainage;

(vi) Termite controls;
(vii) Roof ‘hold down’ straps/top plate location.

g) Performance based solutions maybe required in respect of: -

(i) The possibility of reduced FRL’s where the level 1 floor slabs have thickness variations by reason of ‘wet area’ set-downs;
(ii) The requirements that windows to bedrooms of level 1 have limited opening capacity and the impact that may have on achieving natural ventilation based on a ventilating area of not less than 5% of room area; and
(iii) A performance solution matrix in respect of the buildings’ level of fire resistance consistency of 60 minutes and related matters is at Annexure D.

The manor homes as designed are required to be of Type B construction. The concession under clause C2D6 to allow the use of Type C construction is not available as the buildings all have a single exit system.

However, there are sound arguments to undertake a performance solution to reduce the building’s construction type to Type C construction only in relation to the buildings external wall construction as required under Specification 5, Table(s) S5C24 with the preservation of the non-combustible requirements under clause C2D10 as it applies to external walls materials, facade coverings and the like.

Design matters relevant to construction type reduction are-

- Building height.
- Similar fire-resistant requirements for internal elements.
- Manor homes on the ground floor can be adapted to have direct egress to open space.
- Protection of internal doorway openings.

9.0 REQUIRED FIRE SAFETY MEASURES.

The certifier on issue of a compliance certificate is obligated under the provisions of Section 78 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation,2021 to attach thereto a schedule of fire safety measures that are required to be implemented in the buildings i.e., Manor Homes 1, 2, 3, and 4.

A fire safety schedule of a kind that can be expected has been drafted below.

Fire Safety Schedule: -Version 2.0

Fire safety measures	Standard of performance
Access panels, doors and hoppers to fire resisting shafts	NCC-C4D14 and AS 1905.1-2015
Automatic fire detection and alarm system	NCC E2D8, Specification 20 and AS 1670.1-2018 (A1)
Building occupant warning system (BOWS)	NCC S20C7 and clause 3.22 of AS 1670.1-2018.
Emergency lighting	NCC E4D2 and AS 2293.1-2018
Exit signs	NCC E4D5 NSW E4D6 and AS 2293.1-2018
Fire seals protecting openings in fire resisting components of the building	NCC C4D15 and AS 4072.1-2005
Paths of travels and exits	NCC Part D2 and Part D3
Portable fire extinguishers	NCC E1D14 and AS 2444-2001
Smoke alarms and heat alarms	NCC S20C5 and AS 3786-2014
Smoke detectors and heat detectors	NCC S20C5 and AS 1670.1 -2018 (A1)
Solid core doors	NCC C4D12 and NSW C4D12(4)(b)
Warning and operational signs	NCC Clause D3.6(a) (ii)
Performance Solutions	TBD

Table 6

10.0 CONCLUSION

The architectural plans have been assessed on the basis of obtaining a development that is in compliance with the Building Code of Australia (BCA).

Whilst the plans are well advanced in relation to compliance with the BCA, there are nonetheless matters that require further detailing that will form the basis of specified design and constructional procedures for implementation in the development ahead of the compliance certificate.

Accordingly, the development is capable of complying with the relevant provisions of the Building Code of Australia, 2022 Edition.

Prior to the issue of the first compliance certificate, the plans and specifications will require appraisal by the certifying authority (certifier)to ensure they comply with the Development Consent, the relevant deemed to satisfy provisions of the Building Code of Australia and or its performance requirements.

11.0 RECOMMENDATION.

The report details a number of matters that require further design consideration, matters which are all capable of resolution.

However, once the design documentation moves from a development proposal to 'construction' issue following the co-ordination process, the BCA Report should be amended to reflect the most recent architectural drawings and specifications together with related documentation.

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ANNEXURE A

BCA Assessment for Manor Homes 1,2,3 and 4.

Class 2 Assessment.

Building Code of Australia-Deemed -to-Satisfy Assessment.

Project Address: 18-28 Simpson Street, Dundas. NSW.
File Reference: 23012
Date: 1st August, 2023
BCA Edition: Volume 1---2022 Edition.

Building occupancy	Determination
Classification---Part A6 Manor Homes 1,2,3 and 4	**Residential use.** • Class 2
Number of levels—Rise in storeys.	Two (2) storeys
Construction Type	Construction Type B
Allotment details	Lots 1707-1712 in DP 31846
Allotment area(all lots)	2594 m²

BCA Clause by Clause comments of deemed to satisfy provisions.

Note: 1. NA denotes that the clause is not applicable to the development.

2. CC denotes Compliance Certificate.

3. FRL Fire resistance level.

PART/CLAUSE	REFERENCE	COMMENT
SECTION A – GENERAL PROVISIONS		
Part A4	Reference documents	NA
Part A5	Documentation of design and construction	NA
Part A6G3	Building classifications • Self-contained residential accommodation	Class 2
Part A6G8		NA
Part A6G1		NA
SECTION B		
PART B1 STRUCTURAL PROVISIONS		
B1D1	Deemed to Satisfy provisions	Informational
B1D2	Structural Provisions-Resistance to actions	Structural Engineers design and specification. Notes: Structural engineer must be a Professional engineer as defined under Schedule 1--Definitions
B1D3	Determination of individual actions	NA-Structural Engineers design and specification and certification including AS 1170 parts 1, 2 and 4
B1D4	Determination of structural resistance of materials and forms of construction.	The following Australian Standards in addition to the above standards are relevant to specified elements of the project: - AS 2047-2014: Glazing AS1288-2021; Glass used in buildings AS 1170 Series-2002 AS 1170 Part 1-2002 AS 1170 Part 2-2021 AS 1170 Part 4-2007 AS 3700- 2018; Masonry; AS 3600-2018; Concrete; AS 4100-2020; Steel. AS 2159-2009; Piling (if applicable).
B1D4(i)	Termite management	AS3660.1-2014. **Note:** Applicable if the buildings primary elements e.g., wall and roof framing is susceptible to attack by subterranean termites
B1D5	Structural software	Noted.

B1D6	Construction of buildings in flood hazard areas	The design of the building is to comply with ABCB Standard for Construction of Buildings in Flood Hazard Areas. **Note:** To be revisited once development consent has been obtained
Specification 4	Design of buildings in cyclonic areas	NA
SECTION C – FIRE RESISTANCE		
Part C2 - Fire resistance and stability		
	Application of Part DtS	Noted/informational
C2D2	Type of Construction required	Type B.
C2D3	Calculation of Rise in Storeys (RiS)	2 storeys
C2D4	Buildings of Multiple Classification	Type B construction applies throughout the building
C2D5	Mixed Types of Construction	NA-Noted-relevant at discussion at clause C3D8
C2D6	Two Storey Class 2, 3 or 9c Buildings	NA
C2D7	Class 4 Parts of Buildings	NA
C2D8	Open Spectator Stands & Indoor Sports Stadiums	NA
C2D9	Lightweight Construction	Lightweight fire-resistant construction must comply with Specification 6.
C2D10	Non-combustible building elements	As the building is determined to be of Type B construction, the following non-combustible requirements are not applicable 1. External and common walls; 2. Flooring and floor framing of lift pits; 3. Non-loadbearing walls required to have an FRL; 4. Non-loadbearing shaft walls. 5. External attachments to the building i.e., privacy screening, shade devices, awning type structures, panelling/cladding or 'feature' panelling. 6. Soffit linings are required to be non-combustible. 7. External wall infill FC cladding sections. 8. Load-bearing internal walls must be constructed from concrete or masonry**.**
C2D11	Fire Hazard Properties	Fire hazard properties of floor linings, floor coverings, wall linings, ceiling linings, air handling ductwork, insulation, sarking type materials, must comply with NSW Specification 7 and where appropriate NSW Clause S7C7 of Specification 7 **Notes:** The NSW variation relates to- ▪ Sarking materials;

		▪ Insulation materials; and ▪ Composite materials.
C2D12	Performance of External Walls in fire	NA
C1.12	No provision	**********
C2D13	Fire protected timber: Concession	NA
C2D14	Ancillary elements	As a general rule ancillary element should be non-combustible. **Note:** Awnings at the buildings ground floor entries are to be fabricated from non-combustible materials.
PART C3 - FIRE RESISTANCE		
C3D1	Deemed-to-Satisfy Provisions.	Noted/informational
C3D2	Application of Part	NA
C3D3	General Floor Area and Volume Limitations Basement level	NA.
C3D4	Large Isolated Buildings	NA
C3D5	Requirements for open space and vehicular access	NA
C3D6	Class 9 Buildings	NA
C3D7	Vertical separation of openings in external Walls	NA-Vertical separation. Spandrels of min.900mm in height are to be of non-combustible construction and achieve an FRL of 60/60/60----600mm of the spandrel is to be above the intervening floor level. Horizontal separation. Horizontal or slab separation is also to be of non – combustible construction and project outwards from the building's external walls by a min. distance of 1100mm with 450mm lateral returns.
C3D8	Separation by fire walls	**NA**
C3D9	Separation of classifications in the same storey	NA
C3D10	Separation of classifications in different storeys	Each storey of the building including the storeys not counted in the Rise in Storeys has a single classification. However, Specifications 5 requires the intermediate floors to have a fire resistance as follows- **MH 1** RL / Level / FRL 49180 / One / 60/60/60 Table 1a

		MH 2 RL / Level / FRL: 49590 / One / 60/60/60 Table 1b **MH 3** RL / Level / FRL: 50370 / One / 60/60/60 Table 1c **MH 4** RL / Level / FRL: 50830 / One / 60/60/60 Table 1d **Notes:** 1. The inner leaf of the building's external cavity wall construction (footing to underside of level 1 slab) are required to obtain an FRL of 60/-/-; 2.The internal wall construction that separates one SOU from the stairwell/public lobby is required to obtain an FRL of 60/60/60. Note if the walls are load bearing the FRL is 90/90/90
C3D11	Separation of lift shafts	NA.
C3D12	Stairways and lifts in One shaft	NA
C3D13	Separation of equipment Onsite pump room	NA
C3D14	Electricity supply system	**Substation-NA** As far as can be determined an electricity substation is not located within the development site. **MSB Room-NA**
C3D15	Public corridors in Class 2 & 3 buildings	NA
PART C4 – PROTECTION OF OPENINGS		
C4D1	Deemed-to-Satisfy Provisions	Noted/information.
C4D2	Application of Part	information

C4D3	Protection of openings in external walls	NA-The buildings when complete are designed to stand 3m or more from the identified Fire Source Features.
C4D4	Separation of external walls and associated openings in different fire compartments	**NA**
C4D5	Acceptable methods of protection	NA
C4D6	Doorways in fire walls	**NA**
C4D7	Sliding fire doors	NA
C4D8	Protection of doorways in horizontal exits	NA
C4D9	Openings in fire isolated exits	NA-Entries to fire isolated stairs are required to be protected by -/60/30 self-closing fire doors.
C4D10	Service penetrations in fire Isolated exits	NA-There was no indication in the plans that building services other than that permitted passed through or penetrated fire isolated exit systems
C4D11	Openings in fire isolated lift shafts	NA-Lift landing doors require access doors that: • Have an FRL -/60/- and • Comply with AS 1735.11-1986 and are set to remain closed except when discharging or receiving passengers or goods.
C4D12	Bounding construction: Class 2 and 3 buildings and Class 4 parts	The entry doorways to SOUs(apartments) are to be protected by self-closing, tight fitting, solid core doors not less than 35mm in thickness. Notes: 1. Door clearance within the door frame assembly when in the fully closed position are to comply with AS 1905.1-2015. 2. The door assembly must also have an R^W of not less than 30
C4D12(5)		NA
C4D12(8)		NA-Alternative exits provide travel to the adjoining public road
C4D13	Openings in floors and ceilings for services	Services that pass-through the intermediate floors of the building are to be contained within a shaft, the construction of which will not reduce the fire performance of the building element penetrated.
C4D14	Openings in shafts	Access to service shafts are to be protected by self-closing fire doors that have an FRL of -/60/30
C4D15	Openings for service installations. Building elements that require an FRL	Service installations (electrical, electronic, plumbing, ventilation component and the like) that pass-through construction required to have a FRL must be protected at the point of penetration with a system that has been tested in accordance with AS 4072.1-2005 and AS 1530.4-2014

C4D16	Construction Joints	NA
C4D17	Columns protected with lightweight construction to achieve an FRL	Light weight construction protecting columns must comply with this clause. Note: Extent of lightweight construction to be determined.
SPECIFICATION 5	Fire resisting construction	
S5C3	Fire protection for a support of another part	1.The internal leafs of the external cavity walls from their footing to the underside of level 1 slabs that are loadbearing are required to achieve an FRL of 60/-/-; and 2. Internal walls that separate a SOU from the public lobby/stairwell are required to have an FRL of 60/60/60; 3. The fire performance of the internal walls where lateral support is provided on both sides. **Notes**: The projects structural engineer to confirm the required FRL's are achieved.
S5C4	Lintels	NA
S5C5	Method of attachment not to reduce the fire resistance performance of building elements	This provision has application to attachments to the building's external walls, including finishes, linings, ancillary elements and services
S5C6	General concessions	NA
S5C7	Mezzanine floors	NA
S5C8	Enclosure of shafts	NA
S5C9	Carparks -Class 2 buildings	NA.
S5C10	Residential care buildings-concession	NA
S5C11	Type A fire resisting construction	NA .
S5C12	Concession for floors	NA
S5C15	Roof: Concession	NA
S5C16	Rooflights/Skylights	NA
S5C17	Internal walls and columns: Concession internal walls below the roof	NA
S5C20	Type A construction -Class 2 and 3 buildings-Concession	NA
S5C21	Type B-fire resisting construction	The building is required to comply with the requirements prescribed for Type B construction. **Note: Internal Walls** Internal walls that are required to have an FRL must- 1. extend to the underside of the floor next above, 2. extend to the underside of the non-combustible roof covering, or

		3. to a ceiling immediately below the roof that has a resistance to the incipient spread (RISF) of fire of not less than 60 minutes. Internal walls required to have an FRL are- • Walls that bound service risers, • Walls that bound the stair shaft Floor Construction. The intermediate floors are to have a floor/ceiling system to a standard achieved by an RISF ceiling of not less than 60 minutes Refer to Annexure
S5C23	Type B construction-Concession	Concessions are available to permit the use of timber framing
S5C24	Type C-fire resisting construction	NA
Table S5C24c	FRL for common and fire walls	**NA**
S5C24(1)(d)	Firewall construction	**NA**
SPECIFICATION 6	Structural Test for Light Weight Construction	**TBD**
SPECIFICATION 7	Fire Hazard Properties	Refer to comments under clause C4D15 above
SPECIFICATION 8	External Walls	NA
SPECIFICATION 9	Cavity Barriers-Timber Const.	NA
SPECIFICATION 10	Fire-protected timber	NA
SPECIFICATION 11	Smoke proof walls in health care and residential care buildings.	NA
SPECIFICATION 12	Fire doors smoke doors and Fire windows and shutters	Fire doors to comply with AS1905.1-2015 Shaft access panels if applicable
SPECIFICATION 13	Penetration of walls and floors and ceilings by services	Refer to clause C4D15 above
SECTION D – ACCESS & EGRESS		
PART D2 - PROVISION FOR ESCAPE		
D2D1	Deemed-to-Satisfy Provisions	Noted/informational.
D2D2	Application of Part	NA-The provisions do not apply to the internal parts of SOU's (apartments) of the Class 2 part
D2D3	Number of exits required	• **Ground Floor Level** One(1) exit required. Building complies

<table>
<tr><td></td><td></td><td>

- **First Floor Level**

One(1) exit required.

Building complies.

</td></tr>
<tr><td>D2D4</td><td>When Fire isolated stairways and ramps are required</td><td>NA</td></tr>
<tr><td>D2D5</td><td>Exit Travel Distances</td><td>

- **Ground floor**

Travel distance to the exit comply**.**

- **Levels 01**

Travel distance to the exit comply.

<table>
<tr><th>MH</th><th>Level</th><th>Max. Travel Distance</th><th>Calculated travel Distance.</th></tr>
<tr><td rowspan="2">1</td><td>Ground</td><td>20.0m</td><td><6.0m</td></tr>
<tr><td>1St</td><td>6.0m</td><td><6.0m</td></tr>
<tr><td rowspan="2">2</td><td>Ground</td><td>20.0m</td><td><6.0m</td></tr>
<tr><td>1St</td><td>6.0m</td><td><6.0m</td></tr>
<tr><td>3</td><td>Ground</td><td>20.0m</td><td><6.0m</td></tr>
<tr><td></td><td>1St</td><td>6.0m</td><td><6.0m</td></tr>
<tr><td>4</td><td>Ground</td><td>20.0m</td><td><6.0m</td></tr>
<tr><td></td><td>1St</td><td>6.0m</td><td><6.0m</td></tr>
</table>

</td></tr>
<tr><td>D2D6</td><td>Distances between alternative exits—</td><td>NA</td></tr>
<tr><td>D2D7</td><td>Height of exits, path of travel to exits and doorways</td><td>Building complies</td></tr>
<tr><td>D2D8</td><td>Width of exits and paths of travel to exits</td><td>Height---Path of travel and exits: not less than 2m</td></tr>
<tr><td>D2D9</td><td>Width of doorways in exits or paths of travel to exits</td><td>Exit width not less than 1m</td></tr>
<tr><td>D2D10</td><td>Exit width not to dimmish in direction of travel</td><td>Building complies</td></tr>
<tr><td>D2D11</td><td>Determination and measurement of exits and paths of travel to exits</td><td>Informational in relation to D2D7 and D2D10</td></tr>
<tr><td>D2D12</td><td>Travel via fire isolated exits</td><td>NA</td></tr>
<tr><td>D2D13</td><td>External stairways or ramps in lieu of fire isolated exits</td><td>NA</td></tr>
<tr><td>D2D14</td><td>Travel by non-fire isolated stairways or ramps</td><td>Building complies</td></tr>
<tr><td>D2D15</td><td>Discharge from exits</td><td>a) The external walkway from the road must have a min. unobstructed width of 1.0m.</td></tr>
</table>

		b) The walkway must have a gradient not steeper than 1:20. c) The surface of the walkway must have slip resistance classification not less than listed Table D3D15 when tested in accordance with AS 4586-2013. d) Walkway also need to comply with AS 1428.1-2009.
D2D16	Horizontal exits	NA
D2D17	Non-Required stairways ramps or escalators	NA
D2D18	Number of persons accommodated	Noted.
D2D19	Measurement of distances	Subclauses (b) and (d) utilised
D2D20	Method of measurement	Subclauses (a), (b) (c) (d) and (h) utilised
D2D21	Plant rooms, lift machine rooms and electricity network substations: Concession	NA
D2D22	Access to lift pits	NA
D2D23	Egress from primary schools	**NA**
PART D3 - CONSTRUCTION OF EXITS		
D3D1	Deemed-to-Satisfy Provisions	Noted/informational.
D3D2	Application of Part	Noted/informational.
D3D3	Fire-Isolated stairways & ramps	NA-Structural engineers' certification re D3D3(b)
D3D4	Non-Fire-Isolated stairways and ramps	NA-Ramps/non-fire isolated stairs to be constructed from reinforced concrete.
D3D5	Separation of rising and descending stair flights	NA
D3D6	Open access ramps and balconies	NA
D3D7	Smoke lobbies	NA
D3D8	Installations in exits and paths of travel MHs 1-4 Ground and first floor levels	Services except those allowed in this clause can be installed within required exits, fire isolated stairs, paths of travel to exits. Note: 1. This clause has application to the service cupboards (electrical meters/switchboards/ communication facilities) that are to be located in the public lobby areas of the Manor Homes 1-4 and in path of travel to the exit. 2. (i) Service cupboards are required to be enclosed with non-combustible construction or fire protective grade plasterboard, including the double access doors,

		(ii) The access doors and other openings must be suitably sealed to prevent the escape of smoke from the enclosure.
D3D9	Enclosure of space under stairs and ramps	NA- Space below the stairway of non-fire isolated stairs may be enclosed with fire resistant construction in accordance with this clause
D3D10	Width of required stairways and ramps	NA
D3D11	Pedestrian ramps	Ramps serving as accessible ramps to comply with AS 1428.1; gradient more than 1:14. Slip resistance classification as outlined in table D2.14 when tested in accordance with AS 4586-2013
D3D12	Fire Isolated passageways	NA
D3D13	Roof as open space	NA
D3D14	Goings and risers Internal and external stairs	Treads and Risers and nosing strips (geometry/construction/slip resistance) must comply with the provisions of this clause. Slip resistance criteria—AS 4586-2013.
D3D15	Landings	Landings must not be less than 750 mm long. Slip resistance criteria in accord with Table D2.14 when tested in accord AS 4586-2013
D3D16	Thresholds	Threshold of a doorway must not incorporate a step except when opens to road or open space and the step is less than 190 mm. In addition, thresholds are to be accessible where the doorway opens to a road or open space, the threshold ramp or step ramp is to comply with AS 1428.1
D3D17	Barriers to prevent falls- External stairway	Balustrades/barriers complying with this clause are required for stairways, balconies, terraced areas and their landings including and other areas where the level above the surface beneath is more than 1.0m Height of balustrades are to be not less than 1.0m..
D3D18	Height of barriers	Not less than 1.0m
D3D19	Openings in barriers	Openings in the barrier construction must not permit a 125mm sphere to pass through.
D3D20	Barrier climbability Terrace-Hampton Street Aspect	Barriers to surfaces more than 4m above the surface beneath are not to incorporate horizontal or near horizontal elements that could facilitate climbing between 150mm and 760mm above the surface
D3D21	Wire barriers	NA
D3D22	Handrails	Hand rails must be installed in all stairs, according to this clause at a height of 865m above the nosing of stair flights.

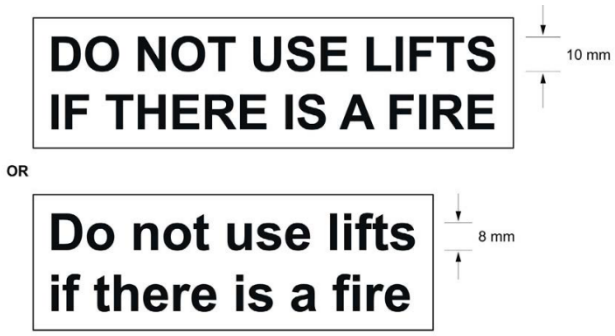
		Handrails to comply with clause 12 of AS 1428.1-2009 both in location and construction and be without vertical sections,
D3D23	Fixed platforms, walkways stairways and ladders	NA
D3D24(2) NSW	Doorways and doors	NA-The sliding doorway at the main entry must be capable of being opened manually by a force not exceeding 110N.
D3D25	Swinging doors	Doors that form part of the exit system must swing in the direction of egress. Note: Exit doors may swing against the direction of egress provided they are fitted with devices for holding the door in the open position
D3D26	Operation of latch Exits	Doors in required exits or doors in the paths of travel must be readily openable without a key from the side that faces a person seeking egress by single handed downward or push action in accordance with this clause, **Notes: 1.** Door latching requirements for the accessible parts of the building are; - • Such that a person who cannot grip will not slip from the handle during the operation of the latch, and • Have a clearance between the handle and the back plate or door face of not less than 35mm and not more than 45mm, • Comprise a single hand pushing action on a single device located between 900mm and 1.2m from the floor surface, and • The latching requirements relate to latching hardware that is located on the door leafs themselves and not elsewhere, i.e., not located on a surrounding surface.
D3D27	Re-entry from fire isolated exits	NA
D3D28	Signs on doors	NA-To be complied with. Listed in the buildings Fire Safety Schedule and installed as required below: - (i) For a self-closing door- "**FIRE SAFETY DOOR** **DO NOT OBSTRUCT** **DO NOT KEEP OPEN"** (ii) For a door discharging from a fire isolated exit "**FIRE SAFETY DOOR—DO NOT OBSTRUCT".**

		Note: The requirements of Section 108 of the EP & A (Development Certification and Fire Safety) Regulation, 2021 also require signage as follows: **OFFENCE RELATING TO FIRE EXITS** **It is an offence under the Environmental Planning and Assessment Act 1979-** **(a) To place anything in or near this fire exit that may obstruct persons moving to and from the exit, or** **(b) To interfere with or obstruct the operation of any fire doors, or** **(c) To remove, damage or otherwise interfere with this notice**
D3D29	Protection of openable windows	Window openings to bedrooms must be provided with 'protection' if the floor below the window is **2.0m** or more above the surface beneath. Protection may be in the form of secure screens or window opening limiters that restrict window opening such as not to permit a 125mm sphere to pass through. Window openings other than bedroom windows that are openable, barrier height of not less than 865mm is required where the floor below the window is 4.0m or more above the surface beneath. **Notes:** Devices or screens must not permit a 125mm sphere to pass through and the device/screen must resist an outward horizontal action of 250N.
D3D30	Timber stairways-Concession	NA
PART D4 - ACCESS FOR PEOPLE WITH DISABILITIES		
D4D1	Deemed – to – Satisfy Provisions	Noted/ information
D4D2	General Building Access Requirements	Refer to Access Report
D4D3	Access to building	
D4D4	Parts of building to be accessible	
D4D5	Exemptions	
D4D6	Accessible Car Parking	
D4D7	Signage	
D4D8	Hearing augmentation	
D4D9	Tactile Indicators	
D4D10	Wheel chair seating spaces in Class 9 (b) assembly buildings	

D4D11	Swimming pools	Required signage • Where doors required by E4D5 to have an exit sign, those doors must be identified as follows: **EXIT** and **LEVEL** and either: - (i). The floor level descriptor; (ii). The floor level number, or (iii). A combination of both. Signs identifying a door *required* by E4.5 to be provided with an *exit* sign must be located— (i)on the side that faces a person seeking egress; and (ii)on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and (iii) where (ii) is not possible, the sign may be placed on the door itself. Required braille and tactile signage to comply with AS1428.1 and ASS 1428.4.1
D4D12	Ramps	
D4D13	Glazing on accessways	
SPECIFICATION 14	NON-REQUIRED STAIRWAYS RAMPS AND ESCALATORS	
SPECIFICATION 15	BRAILLE AND TACTILE SIGNS	
SPECIFICATION 16	ACCESSIBLE WATER ENTRY/EXIT FOR SWIMMING POOLS	
SECTION E – SERVICES AND EQUIPMENT		
PART E1 - FIRE FIGHTING EQUIPMENT		
E1D1	Deemed-to-Satisfy Provisions	Noted/informational.
E1D2	Fire Hydrants	Total floor area of each building calculated to be less than 500m². **Fure hydrants not required.**
E1D3	Fire Hose Reels Basement level	NA
E1D4	Sprinklers	NA
E1D5	Where sprinklers are required: all classifications	NA----Building EH less than 25m
E1D6	Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings	Sprinkler protection is required throughout the whole of the building
E1D7	Where sprinklers are required: Class 3 building used as a residential care building	NA
E1D8	Where sprinklers are required: Class 6 building	NA
E1D9	Where sprinklers are required: Class 7a building, other than an open-deck carpark	NA

E1D10	Where sprinklers are required: Class 9a health-care building used as a residential care building and Class 9c buildings	NA
E1D11	Where sprinklers are required: Class 9b buildings	NA
E1D12	Where sprinklers are required: additional requirements	NA
E1D13	Where sprinklers are required: occupancies of excessive hazard	NA
E1D14	Portable Extinguishers	Portable fire extinguishers are required to be installed in accordance with AS 2444-2001 and for the class 2 part of the buildings.(MH 1-4). **Note:** 1. Portable fire extinguishers for the class 2 part are required to be- (i) an ABE type fire extinguisher; and (ii) a minimum size of 2.5 kg; and (iii) (iii) distributed outside the sole-occupancy unit (A) to serve only the storey at which they are located; and (B) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10m.
E1D15	Fire Control Centres	As building EH is assessed at <25m, a fire control centre is not required
E1D16	Fire precautions during construction	Noted.
E1D17	Provision for special hazards	NA
SPECIFICATION 17	Fire sprinkler system	NA
S17C8	Building occupant warning systems (BOWS)	NA
SPECIFICATION 18	Class 2 and 3 building not more than 25m in EH	NA
SPECIFICATION 19	Fire control centres	NA
PART E2 – SMOKE HAZARD SYSTEM		
E2D1	Deemed-to-Satisfy Provisions	Informational
E2D2	Application of Part	Noted.
E2D3	General requirements	NA
E2D4	Fire-isolated exits	NA

E2D5	Buildings more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	NA
E2D6	Buildings more than 25m in effective height: Class 5, 6, 7b, 8 and 9b buildings	NA
E2D7	Buildings more than 25m in effective height: Class 9a buildings	NA
E2D8	Buildings not more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	The building is required to be provided with an automatic smoke detection and alarm system that complies with Specification 20.
E2D9	Buildings not more than 25m in effective height: Class 5, 6, 7b, 8 and 9 buildings	NA
E2D10 (NSW)	Buildings not more than 25m in effective height: large isolated buildings subject to C3D4	NA
E2D11	Buildings not more than 25m in effective height: Class 9a and 9c buildings	NA
E2D12	Class 7a buildings	NA
E2D13	Basements (other than Class 7a buildings)	NA
E2D14	Class 6 buildings – in fire compartments more than 2000m2. Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	NA
E2D15	Class 6 buildings – in fire compartments more than 2000m2. Class 6 building (containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	NA
E2D16-NSW	Class 9b – assembly buildings: nightclubs, discotheques and the like	NA
E2D17	Class 9b – assembly buildings: exhibition halls	NA
E2D18	Class 9b – assembly buildings: theatres and public halls	NA
E2D19	Class 9b – assembly buildings: theatres and public halls (not listed in E2D18) including lecture	NA

	theatres and cinema/auditorium complexes	
E2D20	Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19.	NA
E2D21	Provision for special hazard	N/A
SPECIFICATION 20 S20C4	Smoke detection and alarm systems	The smoke detection system must comply with- ▪ The provisions of AS 1670.1-2018; ▪ Activate a BOWS in accordance with S20C7, ▪ Installed- a) between each part of the SOU that contains bedrooms and the remainder of the SOU, and b) where bedrooms are served by a hallway in that hallway. **Note:** A combined smoke detection and smoke alarm system in accordance with S20C5 is permissible- 1. Smoke alarms are to comply with AS 3786-2014, and 2. Smoke alarms are to be powered from the consumer mains.
SPECIFICATION 21	Smoke exhaust systems	NA
SPECIFICATION 22	Smoke and heat vents	NA
SPECIFICATION 23	Residential fire safety systems	NA
PART E3 – LIFT INSTALLATIONS		
E3D1	Deemed-to-Satisfy Provisions	**Not Applicable**
E3D2	Lift installations	NA-Criteria for electric and electrohydraulic lift installation.
E3D3	Stretcher facility in lifts	NA- Buildings EH assessed at <12m
E3D4	Warning against use of lifts in fire	NA Warning signs for the lift is as follows.  Listed in the buildings fire safety schedule.

E3D5	Emergency lifts	NA
E3D6	Landings	NA
E3D7	Passenger lift types and their limitations	**NA**
E3D8	NA-Accessible features required for passenger lifts 1. A handrail complying with the provisions for a mandatory handrail in AS 1735.12 2. Lift floor dimensions of not less than 1100 mm wide x 1400 mm deep for lifts which travel not more than 12m. 3. Passenger protection system complying with AS 1735.12 for all lifts with power-operated doors. 4. Lift landing doors at the upper landing for all lifts. 5. Lift car and landing control buttons complying with AS 1735.12 for all lifts. 6. Lighting in accordance with AS 1735.12 for all enclosed lift cars. 7. For all lifts serving more than 2 levels:- i. Automatic audible information within the lift car to identify the level each time the car stops; and ii. Audible and visual indication at each lift landing to indicate the arrival of the lift car; and iii. Audible information and audible indication required by (i) and (ii) is to be provided in a range of between 20 – 80 dB(A) at a maximum frequency of 1500 Hz. 8. Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received, for all lifts.	
E3D9	Fire Service Controls	NA
E3D10	Residential care buildings	NA
E3D11	Fire service recall control switch	NA
E3D12	Lift car service drive control switch	NA
SPECIFICATION 24	Lift installations	NA
PART E4 - EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS		
E4D1	Deemed-to-Satisfy Provisions	Noted.
E4D2	Emergency Lighting requirements	Emergency lighting required to- 1.All stairways. Design and installation standard is AS2293.1-2018
E4D3	Measurement of distance	Noted/informational
E4D4	Design and operation of emergency lighting	AS 2293.1-2018
E4D5	Exit signs	Exit signs required- 1. All stairways. 2. Doorways that lead to open space
E4D6 NSW	Direction signs	NA

E4D7	Class 2 and 3 Buildings and Class 4 parts: exemptions	NA
E4D8	Design and operation of exit signs	AS 2293.1-2018
E4D9	Emergency warning and intercom systems	NA
SPECIFICATION 25	Photoluminescent exit signs	NA
SECTION F – HEALTH AND AMENITY		
PART F1 - DAMP & WEATHER PROOFING		
F1D1	Deemed to Satisfy provisions	Noted/informational
F1D2	Application of Part	
F1D3	Stormwater drainage	Revisit after DA determination
F1D4	Exposed joints	NA
F1D5	External waterproofing membranes	Compliance standard AS 4654 parts 1 and 2-2012.
F1D6	Damp proofing	DPC are to comply with AS 2904
F1D7	Damp proofing of floors on the ground	The raft slab construction in direct contact with the ground surface and the adjoining walls are to have inserted a vapour barrier in accordance with AS 2870-2010
F1D8	Subfloor ventilation	NA
PART F2 – WET AREA AND OVERFLOW PROTECTION		
F2D1	Deemed-to-Satisfy Provisions	Noted/information.
F2D2	Wet area construction	Wet areas must be waterproofed in accordance with Specification 26 and comply with AS 3740-2021
F2D3	Rooms containing urinals	NA
F2D4	Floor wastes	Floor waste must be provided according to this clause----. Within bathrooms, sanitary compartments and laundries must have floor waste The floor surface of wet areas must be graded and drained to the floor waste i.e. Min continuous fall is 1:80, Max continuous fall 1:50
SPECIFICATION 26	Waterproofing and water resistance requirements for building elements in wet areas	Specification sets out requirements for water resistance or waterproofing in wet areas
		. NA-The accessible sanitary compartment must contain the following: - • Closet pan; • Washbasin; • Shelf or bench top; and

		• Adequate means to dispose of sanitary products
PART F3 ROOF AND WALL CLADDING		
F3D1	Deemed to Satisfy Provisions	Informational
F3D2	Roof coverings	Roof covering to comply with AS 1562.1-2018
F3D3	Sarking	Sarking membranes are to comply with AS4200.1-2017 and AS 4200.2-2017
F3D4	Glazed assemblies	Windows, glazed doors, adjustable louvres etc located in the buildings external walls are to comply with AS 2047 for resistance to water penetration
F3D5	Wall cladding	1. Masonry veneer construction of the buildings external walls is to comply with AS 3700-2018; and 2. Cladding components of the external wall construction (FC sheeting) should have CodeMark Certification in respect of Performance Requirement F3P1-Wetaherprofing
PART F4 SANITARY AND OTHER FACILITIES		
F4D1	Deemed to Satisfy Provisions	Noted/informational
F4D2	Facilities in residential buildings	The SOUs (apartments) must be provided with the SOU 1.Kitchen sink and facilities for the preparation and cooking of food. 2.Bath or shower. 3. Closet pan. 4 Washbasin 5 Clothes washing facilities and clothes drying facilities
F4D3	Calculation of number of occupants and facilities	NA
F4D4	Facilities in Class 3 to 9 buildings	NA
F4D5	Accessible sanitary facility	Revisit after DA determination
F4D6	Accessible unisex sanitary compartments	NA-Accessible facilities provided in each villa unit. The facilities are to contain- • Closet pan. • Washbasin. • Shelf or bench • Means to dispose of sanitary products . • Comply with AS 1428.1-2009
F4D7	Accessible unisex showers	NA
F4D8	Construction of sanitary compartments	Doors to sanitary compartments require “lift of hinge” fittings if there is not a clear space of at least 1.2m

		between the closet pan and the arc of the doorway swing
F4D9	Interpretation: urinal and washbasins	NA
F4D10 NSW	Microbial(legionella) control	NA
F4D11	Waste Management	NA
F4D12	Accessible adult change facilities	NA
SPECIFICATION 27	Accessible adult change facilities	NA
PART F5 - ROOM HEIGHTS		
F5D1	Deemed-to-Satisfy Provisions	Noted/informational
F5D2	Height of rooms and other spaces. Habitable rooms -2.4m Bathrooms, sanitary compartments, laundries -2.1m	Ceiling height of habitable rooms is 2.7m
PART F6 - LIGHT AND VENTILATION		
F6D1	Deemed-to-Satisfy Provisions	
F6D2	Provision of Natural light	Required to all bedrooms-building complies
F6D3	Methods and extent of natural light	Residential - window glazing area - to be 10% of floor
F6D4	Natural light borrowed from adjoining room	Noted/information.
F6D5	Artificial lighting	Compliance standard AS1680.0-2009
F6D6- NSW	Ventilation of rooms	Required to all habitable rooms ,bathrooms office common area, laundry either by- 1. Natural ventilation complying with F6D7,or 2. Mechanical ventilation complying with AS 1668.2-2012
F6D7	Natural ventilation	Natural ventilation is achieved by openable windows, doors that have a ventilating area of not less than 5% of floor area of the room.
F6D8	Ventilation borrowed from adjoining room	NA.
F6D9	Restriction on location of sanitary compartments	NA.
F6D10	Airlocks	NA
F6D11	Car parks	NA---Basement to be ventilated in accordance with AS1668.2012

F6D12	Kitchen local exhaust ventilation	NA
PART F7 - SOUND TRANSMISSION AND INSULATION		
F7D1	Deemed-to-Satisfy Provisions	Noted.
F7D2	Application of Part	NA
F7D3	Determination of airborne sound insulation ratings	NA
F7D4	Determination of impact sound insulation ratings	NA
F7D5	Sound Insulation rating of floors	The intermediate floors of the buildings Class 2 part are required to have an $R_W + C_{TR}$ (airborne) not less than 50 and an $L_{n,W}$ (impact) not more than 62
F7D6	Sound Insulation rating of walls	The internal bounding walls of the SOUs must have sound insulation complying with this part i.e. ▪ $R_w + C_{TR}$(airborne) not less than 50; and ▪ R_w (airborne) not less than 50 where the SOU adjoin the stairway shaft
F7D7	Sound insulation rating of internal services	Duct, soil, waste or water supply pipes crossing residential units have sound insulation complying with this clause.
F7D8	Sound isolation of pumps	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump.
SPECIFICATION 29	Sound insulation for building elements	NA
PERT F8 CONDENSATION MANAGEMENT		
F8D1	Deemed to Satisfy Provisions	Information
F8D2	Application of part	The SOUs of the building's Class 2 part
F8D3	External wall construction	Pliable building membranes are to comply with AS4200.1 and installed in accordance with AS4200.2 The pliable membrane is to be installed on the exterior side of the primary insulation layer
F8D4	Exhaust systems	Exhaust system capacities are as follows- 1. Bathrooms and sanitary comaptemnts-25L/2. 2. Kitchen and laundrtes-40L/s Exhaust ducting must discharge directly to outside air including from clothes drying appliances installed in the laundries. Exhaust systems that do not run continuously in bathrooms and sanitary compartments must be electrically interlocked with the rooms light switch

		and set to operate for 10 minutes after the light switch is turned off.
F8D5	Ventilation of roof spaces	NA
SECTION G1 – ANCILLARY PROVISIONS		
G1D1	Deemed to Satisfy Provisions	Noted/informational
G1D2NSW	Swimming pools	NA
G1D3	Refrigerated chambers, strong rooms and vaults	NA
G1D4	Outdoor play spaces	NA
(NSW)	Provision for window cleaning	NA-As the building contains windows located 3 or more storeys above ground level the windows must be either: • Capable of being cleaned from within the building; or • Provision is made for the cleaning of windows by a method that complies with the Work, Health and Safety Act 2011 and its regulations.
PART G2 Boilers, pressure vessels, heating appliance ,fireplaces ,chimneys and flues		
G2D1	Deemed to Satisfy Provisions	NA
G2D2	Installation of appliances	NA
G2D3	Open fireplaces	NA
G2D4	Incinerator rooms	NA
PART G3-ATRIUM CONSTRUCTION		
	Atrium construction	NA
PART G4 CONSTRUCTION IN APLINE AREAS		
	Construction in alpine areas	NA
PART G5 CONSTRCTION IN BUSHFIRE PRONE AREAS		
	Construction in bushfire prone areas	NA
PART G6 OCCUPIABLE OUTDOOR AREAS		
G6D1	Application of part	Informational-----NA
G6D2	Fire hazard properties	NA-
G6D3	Fire separation	NA
G6D4	Provision for escape	NA
G6D5	Construction of exits	NA
G6D6	Firefighting equipment	NA
G6D7	Lift installations	NA
G6D8	Visibility in an emergency, exit signs and warning systems	NA
G6D9	Light and ventilation	NA

G6D10	Fire orders	NA
PART G7 LIVABLE HOUSING DESIGN		
SECTION I SPECIAL USE BUILDINGS		
I1D1NSW	Application of part	NA
SECTION J ENERGY EFFICIENCY		
	Energy Efficiency.	Refer to separate report
Other Matters	Waste reception bays	
	Classification—Class 10b	NA----Performance Requirement----H3P1(2) which is stated as follows- ***A Class 10a building must not significantly increase the risk of fire spread between Class 2-9 buildings***.

ANNEXURE B Fire Resistance Levels-Type B Const.

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Table 4 TYPE B CONSTRUCTION: FRL OF BUILDING ELEMENTS — continued

Building element	Class of building—FRL: (in minutes) *Structural adequacy/Integrity/Insulation*			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL COLUMN not incorporated in an *external wall*, where the distance from any *fire-source feature* to which it is exposed is—				
For *loadbearing* columns—				
less than 18 m	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
Fire-resisting stair *shafts*—				
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 and COLUMNS—	60/–/–	120/–/–	180/–/–	240/–/–
ROOFS	–/–/–	–/–/–	–/–/–	–/–/–

ANNEXURE C- Drawing Schedule

Drawing Number/Revision	Drawing Title	**Drawing date**
DA-201	External works	**5th April, 2023**
DA-202	Ground floor	**5th April, 2023**
DA-203	First floor	**5th April, 2023**
DA-204	Roof plan	**5th April, 2023**
DA-301	Elevations	**5th April, 2023**
DA-302	Elevations	**5th April, 2023**
DA-303	Elevations	**5th April, 2023**
DA-304	Elevations	**5th April, 2023**
DA-305	Elevations	**5th April, 2023**
DA-401	Sections	**5th April, 2023**
DA-402	Sections	**5th April, 2023**
DA-403	Sections	**5th April, 2023**

ANNEXURE D

Performance Solution Matrix—Manor Homes
Following the buildings assessment and the move towards reducing the fire resistance level of the external walls the following performance solution matrix has been prepared.

PS N°	Element	DTS Provision. Volume 1	Performance Requirement	Related Performance Requirement
1	External wall-Fire Resistant level- a) Reduce external wall FRL criterion from 90 minutes to FRL 60/60/60 b) Reduce external column FRL criterion from 90 minutes to FRL 60/-/-	S5C21a S5C21c	C1P2(1)(c) C1P2(1)(d)	E2P2 C1P1
2	Window openings in external walls.	C4D3(2)((a)	C1P2(1)(c)	********
3	Bounding construction-Doorways within internal walls that require an FRL	C4D12(1)(a) and (1)(c). NSW C4D12(4)(b)	C1P2(1)(a) C1P2(1)(b)	E2P2
4	Shaft construction-if applicable	C4D13(1)(b)	C1P2(1)(d)	E2P2 C1P1
5	Use of timber elements in- a) External walls. b) Internal walls. c) Shaft walls.	S5C23(1)	C1P2(1)(c) C1P2(1)(d)	E2P2 C1P1