



DESIGN CONFIDENCE

Warrimac Pty Ltd

Adaptable Housing & Accessibility Report

Development Application

16 Macpherson Street,
Warriewood,
NSW 2102

Project: 16 Macpherson Street, Warriewood
Document Type: Adaptable Housing and Accessibility Report
Our Reference: P223_023-2 (ACCESS AS4299) RT

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Revision History—

| OUR REFERENCE | REMARKS | ISSUE DATE |
|-------------------------------|--|------------------|
| P223_023-1 (ACCESS AS4299) RT | Draft report issued to client for review and comment | 20 February 2023 |
| P223_023-2 (ACCESS AS4299) RT | Final version for DA submission | 3 May 2023 |

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EXECUTIVE SUMMARY

This Adaptable Housing and Accessibility Report has been prepared by Design Confidence at the request of Warrimac Pty Ltd and relates to the proposed 29 Class 1a residential dwellings located at 16 Macpherson Street, Warriewood.

Based upon our assessment to date we are of the opinion that the subject development is capable of achieving compliance with the Class B adaptable housing provisions.

With respect to the assessment undertaken, the following items shall be reviewed further as the project develops—

| ITEM | DESCRIPTION | RESPONSIBILITY |
|------|--|---------------------------|
| 1 | <p>As design progresses, further details shall be provided to ensure compliance with the requirements of the AS4299 / AS1428.1-2009 is achieved, such as:</p> <ul style="list-style-type: none"> a. Wet area (sanitary facilities) details; b. Kitchen details; c. GPO locations; d. Items raised throughout the report that are to be further detailed, i.e path to entry door, gate design, e. Post adaptable housing Specification provided. | Project Architect |
| 2 | <p>The site sits on a flat site however the vehicle entrance has a slope of approximately 9% and we have been advised this is due to the Flood Level design requirements. Council to accept the Site Topography of the site is acceptable and overwrites the AS4299 Type B requirement. Alternatively, we may address the non-compliance by a Performance Solution at the Construction Certificate phase with supporting information on the site topography non-compliance.</p> | Council / Project Manager |

1.0 INTRODUCTION

1.1 General

This Adaptable Housing and Accessibility Report has been prepared by Design Confidence at the request of IPM Project and relates to the proposed 28 residential dwellings located at 16 Macpherson Street, Warriewood, NSW.

1.2 Basis of Assessment

This report is based upon *Class B essential and first priority desirable features provisions*, as required by *Australian Standard AS4299-1995 Adaptable Housing*, Standards Australia, 1995.

The concept of The Adaptable Housing Code is to provide guidelines for adaptable housing that can be modified easily in the future to become accessible to both occupants and visitors at little personal and economic cost.

For a Class 1 and 10 development, BCA 2022 Volume 2, within NSW Schedule 5, states Part H8 of the BCA referring to livable housing requirements is not applicable to a Class 1a building in NSW. Therefore this report will be focusing on the Council's Adaptable Housing and Accessibility requirements for the proposed development.

1.3 Documentation Provided for Assessment

This adaptable housing assessment is based upon the architectural documentation prepared by PBD Architects and listed within **Appendix 1**.

1.4 Limitations

This report is based upon, and limited to, the information depicted in the documentation provided for assessment and does not make any assumptions regarding design intention or the like.

BCA Edition 2022 version commences on 1 May 2023 however it is anticipated BCA 2022 will be the referenced regulation once Development Approval is sought and construction commences. The NCC 2022 available for viewing on the NCC website at the time of this review has been applied for the BCA assessment component of this report.

1.5 Report Exclusions

It is conveyed that this report should not be construed to infer that an assessment for compliance with the following has been undertaken—

- (i) Work Health & Safety Act and Regulations; and
 - (ii) Work Cover Authority requirements; and
 - (iii) Structural and Services Design Documentation; and
 - (iv) The Disability Discrimination Act (DDA) 1992; and
 - (v) The individual requirements of service authorities (i.e. Telecommunication Carriers, Sydney Water, Energy Australia).
-

1.6 Interpretation Notes

To provide the reader with additional context the following information regarding assessment methodology used in this assessment is provided below—

- (i) Movable furniture is the ongoing responsibility of the occupants who should maintain appropriate circulation spaces between and around furnishings;
-

2.0 DEVELOPMENT DESCRIPTION

2.1 Purpose of Report

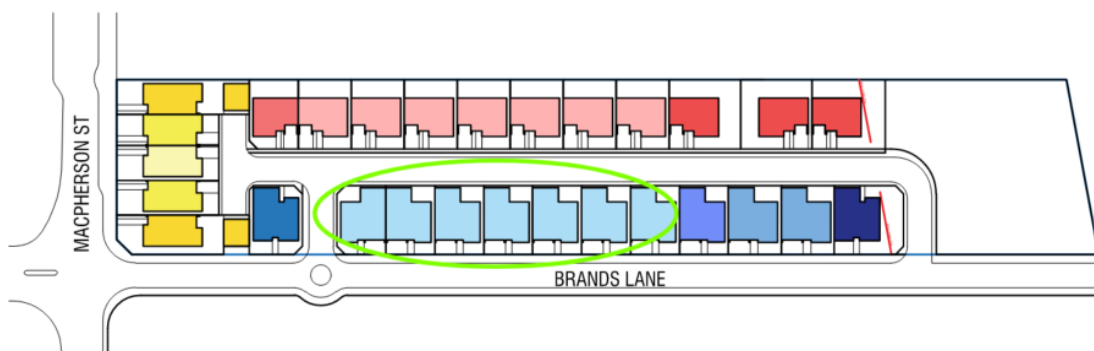
The purpose of this report is to identify the extent to which the architectural design documentation complies with the provisions of AS4299-1995, specifically the Class B requirements.

In accordance with AS4299-1995 *Adaptable Housing*, adaptable housing units shall be designed and constructed to meet the following Performance Requirements:

- (i) **Visitability:** to ensure there is at least one accessible entry and path of travel to the living area and to a toilet;
- (ii) **Avoidance of level changes:** to have no steps where possible;
- (iii) **Manoeuvrability:** to ensure suitable circulation to manoeuvre a wheelchair within the living area, kitchen, bedroom and bathroom/toilet;
- (iv) **Ease of adaptation:** to ensure any walls proposed to be demolished to be non-loadbearing and free of electrical and plumbing services;
- (v) **Ease of reach:** to ensure controls (such as light switches and taps) and shelves/cupboards at suitable levels for people who use wheelchairs; and
- (vi) **Future laundry facilities:** to ensure laundry facilities after adaptation will be accessible to people who use wheelchairs.

Northern Beaches Council adopting the Pittwater 21 Development Control Plan within Section C1.9 Adaptable Housing and Accessibility states, for dwellings, including, semi-detached and attached dwellings, requires adaptable housing to be provided at a rate of 25% of Class B adaptable units.

A total of 28 terraced dwellings are proposed within the subject development, being 7 (25%) as circled below, designated as adaptable units;



Dwelling Type B1 have been designated as Class B adaptable units, as shown below in **Figure 1**.

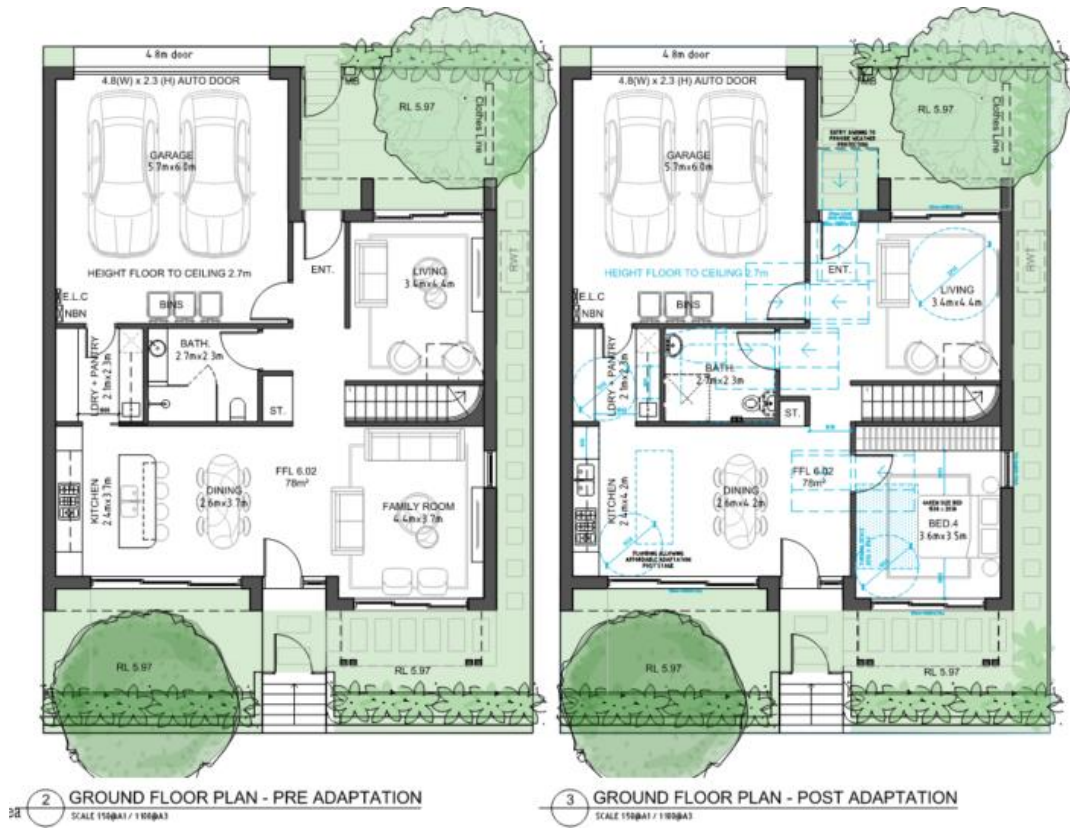


Figure 1 - Dwelling Type B1 (pre/post adaptation)

3.0 AS4299-1995 ASSESSMENT SUMMARY

3.1 General

The following table summarises the compliance status of the architectural design in terms of the prescriptive provisions of each *Class B essential and first priority desirable provisions* within AS4299 – 1995 and indicates a **capability for compliance** ('COMPLIES') with Class B requirements.

A detailed analysis and commentary are provided in **Section 4.0** of this report in the instance that prescriptive non-compliance occurs ('DOES NOT COMPLY') or further 'DESIGN DETAIL' is required.

Such instances should not necessarily be considered design deficiencies, but rather matters which need to be considered by the design team, the certifying authority and all other relevant stakeholders as design progresses.

3.2 Schedule of Essential and First Priority Desirable Features – Class B

| AS4299-1995 CLAUSE | | COMPLIES | DOES NOT COMPLY | DESIGN DETAIL |
|--------------------|------------------------------|----------|-----------------|---------------|
| 2.3 | Drawings | ✓ | | ✓ |
| 3.3.2 | Siting | | ✓ | ✓ |
| 3.6 | Security | | | ✓ |
| 3.7.2 | Private car accommodation | ✓ | | |
| 3.8 | Letterboxes | | | ✓ |
| 4.3 | Accessible entry | | | ✓ |
| 4.2 | Interior - general | ✓ | | ✓ |
| 4.7 | Living areas | ✓ | | ✓ |
| 4.5 | Kitchen | | | ✓ |
| 4.6.1 | Main bedroom | ✓ | | |
| 4.6 | Other bedrooms | | N/A | |
| 4.4 | Sanitary facilities | | | ✓ |
| 4.8 | Laundry | ✓ | | ✓ |
| 4.11.5 | Storage | ✓ | | |
| 4.9.1 | Floor surfaces | | | ✓ |
| 4.11 | Ancillary items | | | ✓ |
| 4.11.6 | Garbage and other provisions | | | ✓ |

4.0 AS4299-1995 DETAILED ASSESSMENT

4.1 General

With reference to the AS4299-1995 Assessment Summary contained in **Section 3.0** above, the following analysis and commentary is provided.

In addition, reference is also made to **Appendix 2**, which contains specification items which should be noted on drawings indicating compliance will/has been achieved with AS4299-1995 within the detailed Construction documentation phase.

This commentary is formulated to enable the design documentation to be further progressed, for the purpose of evidencing the attainment of compliance with the relevant provisions of AS4299-1995, specifically Class B and First Priority Desirable Features.

4.2 Detailed Assessment

4.2.1 Drawings

The following comment is provided in regards to Clause 2.3 Drawings of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------|--|--|
| General | Compliance is achieved with this clause – Drawings have been provided for the seven (7) nominated adaptable units, being all Type B1 layouts, demonstrating both pre-adaptation and post-adaptation layouts, in accordance with AS4299-1995. | The design is capable of achieving compliance subject to detailed documentation at the construction documentation phase. |

4.2.2 Siting

The following comments are provided in regards to Clause 3.3.2 Siting of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|------------------------|--|--|
| Path from car drop off | A continuous accessible path of travel, in accordance with AS1428.1-2009 is to be provided from street frontage carparking area or drop off point to all adaptable housing units. | We have been advised the drop off zone to each adaptable unit is via the internal road adjacent to each adaptable dwelling. From there direct access is available to the level entry doors . |
| Accessway | The accessible path of travel to the entrance of adaptable housing units shall be continuous, slip-resistant, hard-surfaced and shall not incorporate any step, stairway or other impediment, compliant with AS1428.1-2009 | Capable of achieving compliance. Gates shown leading to garden and front entry are to comply with AS1428.1 including door circulation clearances and hardware. |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------------|--|---|
| | | <p>The path should be hard-surfaced including the landing circulation space compliant with AS1428.1.</p> <p>Construction documentation to detail compliance.</p> |
| Site Topography | The development site should be gently sloping with a maximum 1:14 gradient. | The site is generally level however for a short distance along the vehicle entry road, a slope of approximately 9% is shown. We have been advised this is due to the Flood Level design requirements. Council to accept the Site Topography of the site is acceptable and overwrites the AS4299 Type B requirement. Alternatively, we may address the non-compliance by a Performance Solution at the Construction Certificate phase with supporting information on the site topography non-compliance. |
| Common Areas | Access for people with disabilities should be available to all common use facilities, including carpark, letterbox area, laundry and clothes drying area, garbage disposal area and at least part of the garden. | <p>Letterboxes have been provided to each dwelling at the front entry next to the entry gate.</p> <p>Access to the letterbox should be in accordance with AS1428.1</p> <p>Each adaptable dwelling to have their own individual garbage bins stored within their allocated garages. No other common facilities are provided within the development.</p> |
| Connecting pathways | Pedestrian networks in developments should be separate to vehicular access, and where adjacent distinguishable by use of colour and texture. | Footpaths are provided adjacent to the internal vehicle Accessway. A detailed assessment of the finish / kerb has not been undertaken and to be further detailed within the construction documentation. |

4.2.3 Security

The following comment is provided in regards to Clause 3.6 Security of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------|--|--|
| General | There should be a clear line of sight from a well-lit vehicular drop-off point to a safe pedestrian entry point. An even degree of light shall | The drop-off point to each adaptable dwelling is to be directly out front of each dwelling via the internal vehicle accessway. |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------|---|--|
| | be provided along main accessible pathways | Lighting should be provided within the accessway / dwelling to ensure adequate degree of light provided and details confirmed within construction documentation. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Security specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 3.6 of AS4299-1995. |

4.2.4 Private car accommodation

The following comments are provided in regards to Clause 3.7.2 Private Car Accommodation of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------------|---|---|
| Adaptable Car Bays | Each adaptable housing is to have car parking spaces with dimensions in accordance with AS4299-1995 / AS/NZS2890.6:2009 and have been provided, hence meeting the requirement of one (1) car parking space to be allocated to each adaptable unit within the development, in accordance with AS4299-1995. | The design achieves compliance. |
| Symbol of Access | The requirement for a symbol of access to be placed on the pavement shall not apply to any privately-owned parking space for people with disabilities associated with a single residence and intended primarily for use by occupants of that residence. | This requirement is applicable to this development. Signage not required and the design achieves compliance. |
| Garages / Car Ports | Garages and carports shall have minimum internal dimensions of 6.0 m x 3.8 m. A 2.5 m internal vertical clearance. Provision for a power-operated roller door. A roof is to be provided to the carparking space. | The pre-adaptable plans show clearance within the garage of 2.7m from FFL. The design achieves compliance. |
| Covered Access | Access to the adaptable dwelling should be via a covered walkway and conveniently positioned within close proximity from the adaptable carspace. | The design achieves compliance. Each carspace required for the adaptable dwelling is provided within the dwelling and access from the garage to the internal space is possible via an internal access door |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------------------|---|--|
| | | in addition to the front entrance door. |
| Lighting Specification | <p>As a minimum, general lighting of 50 Lux and task lighting of 200 lux should be provided within the garages.</p> <p>Note The lighting and power reticulation shall be that rewiring will not be required to achieve the higher illumination level (lux) for those people with a vision impairment as shown in Table 4.1 of AS4299.</p> | Ensure the Car Parking specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 3.7 of AS4299-1995. |
| Finished Floor Gradient | Accessible parking spaces and shared areas shall at the same grade and the ground surface shall be not steeper than 1:40 (1:33 for external bitumen surfaces is acceptable). | The design achieves compliance. |
| Head Height Clearances | Vertical clearance leading to the accessible parking spaces shall be not less than 2200mm. | <p>The pre-adaptable plans show clearance within the garage door entry of 2.3m from FFL.</p> <p>The design achieves compliance.</p> |

4.2.5 Letterboxes

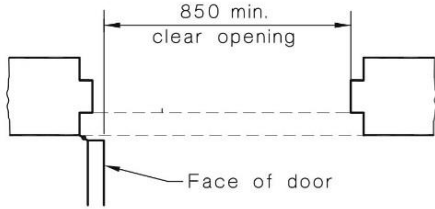
The following comments are provided in regards to Clause 3.8 Letterboxes of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------|--|---|
| Letterboxes | External letterboxes shall be located on a hard standing area connected to an accessible pathway to the adaptable housing unit. | <p>Capable of achieving compliance.</p> <p>A hard standing area to be provided on the dwelling side of the letterboxes as a minimum. A hard surface, door circulation space to operate the gate is also required. .i.e. for a gate swinging towards a user, minimum 530mm on the latch side for a length of 1450mm. Detailed. construction landscape drawings to show compliance.</p> |
| Location | <p>Where letterboxes are centrally located in residential estate developments they should be adjacent to the street entry.</p> <p>The letterbox area should have a roof and be in a well-lit location.</p> | The location of the mail boxes are adjacent to each adaptable dwelling, as they are for all of the Class 1a dwellings. We deem this to be acceptable for this type of development. |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------|---|--|
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Letterbox specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 3.8 of AS4299-1995. |

4.2.6 Accessible entry

The following comments are provided in regards to Clause 4.3 Accessible Entry of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---|--|---|
| Entry Door Clear width and Circulation Spaces | <p>Entry door to the adaptable unit to have a clear opening width and circulation space (hinge and latch side clearance) in accordance with AS1428.1-2009, see below figure for door clear opening width requirements;</p>  <p>(a) Swing door</p> | The design achieves compliance. |
| Entrance | <p>Where exposed to the weather, the entry door to have a level landing (an area of 1550mm diameter with a maximum 1:40 gradient) with a low threshold to exclude water, compliant with AS4299-1995.</p> <p>The entry door should be weatherproofed and provided with a cover / porch.</p> | The design achieves compliance. |
| Security Door | Provision should be made for future installation of a combined door / security door. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Entry Door specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.3 of AS4299-1995. |

4.2.7 Exterior – General

The following comment is provided in regards to Clause 4.3 Exterior of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------|---|---|
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Exterior specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.8 Interior – General

The following comments are provided in regards to Clause 4.2 Interior of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|--------------------|--|--|
| Flooring | Floor within units is to be level throughout, if split-levels are used, they are to either incorporate scope for a ramp compliant with AS1428.1, or all essential features are to be located on one level (i.e. entry, living area, kitchen and WC); | The design achieves compliance. |
| Circulation Spaces | Circulation spaces to be capable of modification to comply with AS1428.1-2009 as a minimum. | The design achieves compliance. |
| Doors | Doors, other than the main bedroom, main bathroom, laundry and kitchen doors, to have clear opening width of 820mm at pre-adaptation. | The design achieves compliance. |
| Corridors | Internal corridors to have a minimum width of 1000mm at pre-adaptation. | The design achieves compliance. |
| Window sills | Window sills at max 730mm above floor level to living and 600mm above floor levels to bedroom areas. | The window sills are noted as 130mm on the post adaptable plans and show compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Interior Door specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.9 Living area

The following comments are provided in regards to Clause 4.7 Living Area of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------------|--|--|
| Circulation Space | Provision shall be made for a circulation space to enable a 360° wheelchair turn, after furniture has been placed (2250mm diameter turning space will satisfy this requirement). | The design achieves compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Living Area specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.10 Kitchen

The following comments are provided in regards to Clause 4.5 Kitchen of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|------------------|---|---|
| Bench Clearances | A minimum clearance of 1550mm between all opposing base cabinets and walls to be provided at the outset, to allow for a 180° turn, in accordance with AS1428.1. | The design achieves compliance. |
| Door | Kitchen door to have a clear opening width of 850mm and circulation spaces in accordance with AS1428.1-2009. | Not applicable. |
| Work Surface | Benches to include 800mm work surface adjacent to the sink and cooktop. | The design achieves compliance. |
| Work Surface | Provide a workspace adjacent to the refrigerator. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Oven | Elevation drawings to indicate location of oven to be located adjacent to a work surface (oven to be located underneath cooktop) Where oven doors are hinged, the | Capable of achieving compliance. Construction documentation to detail compliance. |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------|---|--|
| | clear work surface to be on the opposite side to the hinge. | |
| Microwave | Provision shall be made for a microwave shelf to be installed or replaced at any height between 750mm and 1200mm above FFL. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Kitchen specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.11 Main bedroom & other bedrooms

The following comments are provided in regards to Clause 4.6.1 Main Bedroom and other bedrooms of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|--------------------|--|--|
| Circulation Spaces | The main bedroom shall be capable of accommodating a queen size bed (1530 x 2030mm), a wardrobe and 1000mm on either side of the bed and 1540mm turning space at the foot of the bed (generally at minimum 3600mm x 3600mm room clear of wardrobes). | The design achieves compliance. |
| Door | Main bedroom door to have 850mm clear opening width and circulation spaces in accordance with AS1428.1-2009. | The design achieves compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Main Bedroom & other bedrooms specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.12 Sanitary facilities

The following comments are provided in regards to Clause 4.4 Sanitary Facilities of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------|---|--|
| General | At least one sanitary facility and components within the SOU shall be adaptable, at minimum cost, to potentially comply with AS1428.1-2009 as a minimum. Any walls that are to be moved or demolished | The WC pan is not positioned within the required corner post adaption position and therefore requires an additional waste water pipe to be provided at the construction phase. |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------|---|---|
| | between pre and post adaption must be non-loadbearing and free of electrical and plumbing services. | Access is to be easily available to the additional capped service pipe which can be utilized when the post adaptable dwelling is to be constructed. Specification to be included on approved construction documentation. |
| Visitable WC | Each housing unit shall be provided with either a visitable toilet or an accessible toilet, in accordance with AS4299 from the outset at pre-adaption stage. Where a separate toilet and bathroom are used with the intention of future unification, the WC pan shall initially be positioned at the correct distance from fixed walls. | A visitable toilet is provided at the pre-adaption stage. As above, additional services required at the pre-adaption phase to allow for cost effective post adaption compliance. Specification to be included on approved construction documentation. |
| Door | Main bathroom door to have 850mm clear opening width and circulation space in accordance with AS1428.1-2009. An exception can be made to the positioning of the washbasin, which can be located a minimum of 300mm clear of the swing of the door, in accordance with Figure 51 of AS1428.1-2009. | The design achieves compliance. |
| Toilet Pan | The toilet pan shall be provided with circulation spaces which can achieve compliance with AS1428.1-2009 at post adaption. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Shower Recess | The shower recess shall be located in a consistent location between pre and post adaption. The shower recess should have no hob with minimum size 1160 x 1100 to comply with AS1428.1. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Washbasin | The washbasin shall be located so that circulation space and knee clearance can achieve compliance with AS1428.1-2009 at post adaptation. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Sanitary Facilities specification as listed within Appendix 2 is noted on design |

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------|------------------------|---|
| | | documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.13 Laundry

The following comments are provided in regards to Clause 4.8 Laundry of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|-------------------|---|---|
| Laundry Location | The location of the laundry is to remain consistent between pre and post adaption. | The design achieves compliance. |
| Circulation Space | Provision for adequate circulation space (1550mm diameter) shall be made in front of or beside appliances. | The design achieves compliance. |
| Door | If a separate room is provided for laundry, the door is to have 850mm clear opening width and circulation space in accordance with AS1428.1-2009; | The design achieves compliance. |
| Washer and drier | Space should be shown to allow for a washing machine and a dryer in a Class B dwelling type. | Capable of achieving compliance. Construction documentation to detail compliance. |
| Clothesline | Provide a continuous accessible path of travel to a clothesline, where provided. | A clothes line is provided to each dwelling within the front lawn of each property. A hard-surface path should be available to the cloths line in the post adaptable layout. Construction documentation to detail compliance. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Laundry specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.2 of AS4299-1995. |

4.2.14 Ancillary items

The following comments are provided in regards to Clause 4.11 Ancillary of the Adaptable Housing Standard—

| DESCRIPTION | COMPLIANCE REQUIREMENT | COMMENT |
|---------------|---|---|
| Storage | A linen storage cupboard of a minimum 60mm width, with suitable adjustable shelving in the post adaptable layout. | The design achieves compliance. |
| Garbage | The garbage area should be accessible from the housing unit. | Garbage bins are located within the private garages for each adaptable dwelling. |
| Specification | Class B adaptable unit specification to be satisfied. | Ensure the Ancillary specification as listed within Appendix 2 is noted on design documentation drawings, compliant with Clause 4.11 of AS4299-1995. |

5.0 CONCLUSION

5.1 General

Our strategy for ensuring compliance will be refined and documented during the design process in conjunction with the continual development of the architectural documentation, as required.

Based upon our assessment to date we are of the opinion that the subject development is capable of achieving compliance with the relevant *Class B* provisions of the *Australian Standard AS4299-1995 Adaptable Housing*, subject to the comments and the design detail contained in **Section 4.0**.

We trust that the above information is sufficient for the consent authority in assessing the merit of the architectural design from a planning perspective.

Report By



Rachael Telling
Accessibility Consultant
For Design Confidence (Sydney) Pty Ltd

Verified By



John La Scala
Associate Accessibility
For Design Confidence (Sydney) Pty Ltd

APPENDIX 1 – Documentation Provided for Assessment

This adaptable housing assessment was based upon the architectural documentation prepared by PBD Architects namely—

| DRAWING | REV | TITLE | DATE |
|---------|-----|--|----------|
| DA 000 | 01 | Cover Sheet | 12.04.23 |
| DA 004 | 01 | Lot Plan | 12.04.23 |
| DA 005 | 01 | Master Plan Ground Level | 12.04.23 |
| DA 006 | 01 | Master Plan First Floor | 12.04.23 |
| DA 106 | 01 | Type B1 Ground Floor Level Pre + Post Adaption | 12.04.23 |
| DA 107 | 01 | Type B1 First Floor + Roof | 12.04.23 |

APPENDIX 2 – Class B AS4299 Specification

The following Specification checklist is provided for implementation within design documentation to ensure as the design progresses, compliant with AS4299-1995 will be achieved.

| 1. SECURITY | |
|-----------------------|--|
| 1.1. | An even degree of light shall be provided along the main accessible pathways. Lighting shall be at a low level to reduce glare. A minimum lighting level of 50 lux at ground level shall be provided. Light fittings should light up the surface for one metre on each side of the path. |
| 2. CAR PARKING | |
| 2.1. | The ground surface shall be firm, plane, slip resistant and traversable by people with disabilities (hence surfaces such as loose gravel and grass are not acceptable). |
| 2.2. | As a minimum, general lighting of 50 Lux and task lighting of 200 lux should be provided within the garages. Note The lighting and power reticulation shall be that rewiring will not be required to achieve the higher illumination level (lux) for those people with a vision impairment as shown in Table 4.1 of AS4299. |
| 3. LETTERBOXES | |
| 3.1. | Letterboxes shall comply with Australia/New Zealand Post regulations. |
| 3.2. | Letterboxes and parcel racks should be lockable. |
| 4. ACCESSIBLE ENTRY | |
| 4.1. | The operational force of entry doors to be lightweight in design to satisfy the operational requirements of AS1428.1-2009 (where provided, door closers to be adjusted to satisfy this requirement); |
| 4.2. | Door hardware to be operable with one hand and located at a suitable location in accordance with AS1428.1-2009— (i) D-pull or D-lever type handles with a return; (ii) Have a minimum 35-45mm clearance between the handle and the backplate of the door face; (iii) Be located between 900-1100mm above FFL. |
| 4.3. | Lighting should be positioned so that a person outside the door is illuminated. A minimum of 300 lux should be provided. |
| 4.4. | Provision should be made for future installation of a combined door / security door. |
| 5. EXTERIOR - GENERAL | |
| 5.1. | All external doors are to be keyed alike. Provision for security screen to exterior opening or sliding window and doors. |
| 6. INTERIOR - GENERAL | |
| 6.1. | Door hardware to be operable with one hand and located at a suitable location in accordance with AS1428.1-2009— (i) D-pull or D-lever type handles with a return; (ii) Have a minimum 35-45mm clearance between the handle and the backplate of the door face; (iii) Be located between 900-1100mm above FFL. |

| 7. LIVING AREA | |
|----------------|--|
| 7.1. | Indicate provision for a telephone outlet adjacent a power point between the kitchen and the living space. |
| 7.2. | A minimum of four (4) double GPOs should be provided in the living room, at a height of not less than 600mm, with a preferred height of 1000mm above FFL. |
| 7.3. | Two television outlets should be provided in the living area adjacent to GPOs; one location to enable viewing from dining and kitchen. |
| 7.4. | Full height glazed panels or door units where provided shall have a transom at 600-730mm above floor level. Glazing shall be of a safety glazing material; |
| 7.5. | GPOs shall be located not less than 500mm horizontally from internal corners; and |
| 7.6. | Potential illumination level within living areas to be a minimum 300 lux. |

| 8. KITCHEN | |
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| 8.1. | Ensure at pre-adaptation continuous tiling / floor surface is provided under all base cabinets to allow for joinery to be reconfigured and that capped services are provided where required to ensure adaptation is at minimal cost and inconvenience. |
| 8.2. | Kitchen sink to be adjustable from 750mm-850mm in height, or replaceable as a unit, plumbing shall be installed to accept supply and drainage connections for sinks mounted at the heights specified. |
| 8.3. | A thermostatic mixing valve should be fitted to regulate water temperature and provide a safe, predetermined flow of hot water. |
| 8.4. | The tap set shall have levers or sensor plate controls located no greater than 300mm from the front of the bench. |
| 8.5. | The cooktop shall be provided with an isolation switch and controls which do not require reaching over hotplates and controls shall have raised cross-bars for ease of grip; |
| 8.6. | At least one double power point outlet within 300mm of the front of a work surface, and one provided for a refrigerator in such a position as to be easily accessible after the refrigerator is installed. |
| 8.7. | Provision for microwave oven at height of 750 – 1200mm from FFL. |
| 8.8. | Potential illumination level should be a minimum of 300 lux with 550 lux over work surfaces, this can be achieved with an additional light over the sink and work surfaces. |
| 8.9. | Hot water systems to be installed to deliver hot water at a maximum of 50°C at the hot water outlet. |
| 8.10. | Door pulls or handles for wall cabinets shall be capable of operation without a firm grip. Provide D handles. A minimum 50mm clearance shall be provided between the handle and any obstruction; and |
| 8.11. | Door pulls or handles should be installed within 150mm of the bottom edge of cabinet doors. For base cabinets, door pulls, or handles should be installed within 150mm of the top edge of the doors. |
| 8.12. | Adjustable shelving: depth 600mm max. up to 800mm above floor, depth 450mm max. from 800 to 1500mm above floor; depth 300mm max. above 1500mm as per clause 4.5.10 of AS4299. |
| 8.13. | The floor surface shall have a slip resistance wet pendulum test rating of P2, in accordance with AS/NZS4586:2004 / SA HB 198:2004. |

| 9. MAIN BEDROOM | |
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| 9.1. | A minimum of two double socket general purpose outlets shall be provided on the wall of the bedroom where the bedhead is likely to be located; |
| 9.2. | Two-way light switches should be provided, one located near the planned bed position. Height to be in accordance with AS1428.1-2009. |
| 9.3. | A telephone outlet should be provided in each bedroom next to the bed on the side closest to the door. |
| 9.4. | A television outlet should be provided in each bedroom on the opposite wall to the bedhead, adjacent to the double GPO. |

9. MAIN BEDROOM

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| 9.5. | Potential illumination within the bedroom to be a minimum 300 lux. |
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10. OTHER BEDROOMS

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| 10.1. | A minimum of two double socket general purpose outlets shall be provided on the wall of the bedroom where the bedhead is likely to be located; a minimum of one GPO to be located on the opposite wall. |
| 10.2. | Two-way light switches should be provided. |
| 10.3. | A telephone outlet should be provided in each bedroom next to the bed on the side closest to the door. |
| 10.4. | A television outlet should be provided in each bedroom on the opposite wall to the bedhead, adjacent to the double GPO. |

11. SANITARY FACILITIES

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| 11.1. | Where toilet pan and/or basin services are to be relocated at post-adaption stage, capped services shall be provided where required. |
| 11.2. | A shower shall be provided in accordance with AS1428.1-2009. Provide a shower recess with a level area (i.e. no hob) across the compartment and waterproofed to comply with AS3740. Shower waste to be min. 80mm diameter. |
| 11.3. | Where shower, bath and WC grabrails are not provided from the outset and framed walls are used, reinforced areas for secure fixing shall be provided to support future grabrails in accordance with AS4299. |
| 11.4. | Provide a double GPO beside the mirror (in the post-adapted location). A recessed soap holder is required. The bathroom should include a wall cabinet with a light above |
| 11.5. | Tap sets throughout shall have capstan or lever handles. |
| 11.6. | Provision for a folding seat in shower to comply with AS1428.1. |
| 11.7. | Hot water systems to be installed to deliver hot water at a maximum of 50°C at the hot water outlet. A thermostatic mixing valve should be fitted to regulate water temperature and provide a safe. Predetermined flow of hot water. |
| 11.8. | The floor surface shall have a slip resistance wet pendulum test rating of P2, in accordance with AS/NZS4586:2004 / SA HB 198:2004. |
| 11.9. | Potential illumination level within the bathroom to be 300 lux minimum, with 600 lux task lighting. |

12. LAUNDRY

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| 12.1. | Provision to be made for an automatic washing machine and drier. Provision of shelves for soaps and similar, 1200mm mm max height. |
| 12.2. | A double general power outlet shall be provided. |
| 12.3. | Hot water systems to be installed to deliver hot water at a maximum of 50°C at the hot water outlet. A thermostatic mixing valve should be fitted to regulate water temperature and provide a safe. Predetermined flow of hot water. |
| 12.4. | The floor surface shall have a slip resistance wet pendulum test rating of P2, in accordance with AS/NZS4586:2004 / SA HB 198:2004. |
| 12.5. | Potential illumination level within the bathroom to be 300 lux minimum, with 600 lux task lighting. |

13. ANCILLARY ITEMS

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| 13.1. | Light switches shall be located at a height not less than 900mm not more than 1100mm above FFL, and in line with door handles. |
| 13.2. | Switches shall be located adjacent to door handles where practical. |

13. ANCILLARY ITEMS

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| 13.3. | Except where elsewhere described (refer to kitchen and bathroom), GPOs shall be located at a height of not less than 600mm, with a preferred height of 1000mm above FFL, and in line with door handles. |
| 13.4. | GPOs shall be located not less than 500mm horizontally from internal corners. |
| 13.5. | Floors to be slip resistant especially balconies and external paved areas. |
| 13.6. | The garbage area should be accessible from the housing unit. |

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