

CITE GROUP GARTNER TROVATO ARCHITECTS PTY LTD

# ACCESS ASSESSMENT REPORT

*21 Oaks Ave, Dee Why NSW*

Project Number: 118613

Report Type: Access

Revision: 1

Date: 6 March 2024

## PREPARED FOR

Sean Gartner

[sean@g-t.com.au](mailto:sean@g-t.com.au)

## PREPARED BY

Kostas Partou

[kostas.partou@jensenhughes.com](mailto:kostas.partou@jensenhughes.com)




**JENSEN HUGHES**

Jensen Hughes Pty Limited, Trading as BCA Logic  
Suite 302, Level 3, 151 Castlereagh St, Sydney NSW 2000  
Postal Address: PO Box Q1440, Queen Victoria Building NSW 1230

Liability limited by a scheme approved under Professional Standards Legislation

## Document Control

Revision	Issue Date	Issue Description	Prepared By:	Verified by:
118613- Access-r1	6 March 2024	DA Stage Access Assessment Report	Kostas Partou	Shane Dealy
	6 March 2024	Shane Dealy Registered Certifier & Senior Building Regulations Consultant  BDC3408	Signed:	DocuSigned by:  C7D56420F77649A...

## Jensen Hughes Australia

### Providing building regulations, fire engineering, accessibility, and energy consulting services to NSW for over 25 years

Our story begins in 1997 with the founding of BCA Logic to fulfill the demand of a consultancy company whose expertise expanded across the entire life cycle of a building, from consulting on the initial planning through to construction and occupation.

BCA Logic, SGA Fire and BCA Energy joined Jensen Hughes in 2021, a leading global, multi-disciplinary engineering, consulting and technology firm focused on safety, security and resiliency. We continue to be at the forefront of our industry and work thoroughly to preserve our position by ensuring the successful delivery of projects.

Jensen Hughes was launched in 2014 through the historic merger of Hughes Associates and Rolf Jensen & Associates (RJA), two of the most experienced and respected fire protection engineering companies at the time. Since then, we have gained market leadership in nuclear risk consulting and established commanding positions in areas like forensic engineering, security risk consulting and emergency management. Over the past 22 years, our integration of more than 30 privately held engineering and consulting firms has dramatically expanded our global footprint, giving us a powerful market presence ten times larger than our nearest competitor in some of our markets and extending our historical lineage back to 1939.

With more than 90 offices and 1500 employees worldwide supporting clients globally across all markets, we utilise our geographic reach to help better serve the needs of our local, regional, and multinational clients. In every market, our teams are deeply entrenched in local communities, which is important to establishing trust and delivering on our promises.

## Table of Contents

EXECUTIVE SUMMARY .....	5
1.0 BASIS OF ASSESSMENT .....	8
1.1 LOCATION .....	8
1.2 PURPOSE .....	9
1.3 LIMITATIONS .....	9
1.4 FEDERAL DISABILITY DISCRIMINATION ACT (DDA) .....	10
1.5 DISABILITY (ACCESS TO PREMISES – BUILDINGS) STANDARDS 2010 COMPILATION NO.2 (DAPS) .....	10
1.6 DESIGN DOCUMENTATION .....	10
1.7 DEFINITIONS.....	10
2.0 KEY COMPLIANCE CONSIDERATIONS.....	12
2.1 GENERAL.....	12
2.2 CLASSIFICATION .....	12
2.3 DIMENSIONS AND TOLERANCES.....	12
2.4 PERFORMANCE BASED DESIGN – PERFORMANCE SOLUTIONS .....	12
2.5 COUNCIL'S DEVELOPMENT CONTROL PLAN REQUIREMENTS (DCP) .....	13
2.6 RESIDENTIAL SOLE OCCUPANCY UNITS .....	15
2.7 AREAS REQUIRED TO BE ACCESSIBLE.....	16
2.8 LIVEABLE HOUSING DESIGN GUIDELINES REQUIREMENTS (LHDG) .....	17
2.9 ADAPTABLE HOUSING CODE ASSESSMENT SUMMARY (AS4299-1995) .....	17
2.10 DESIGN ITEMS REQUIRING ATTENTION.....	17
ANNEXURE A - DESIGN DOCUMENTATION.....	29
ANNEXURE B - COMPLIANCE SPECIFICATION.....	30

## Tables

Table 1: Building Classification .....	12
Table 2: Performance Solutions .....	13
Table 3: Controls for Parking Facilities .....	13
Table 6: Architectural Plans .....	29

## Executive summary

This document provides an assessment of the architectural design drawings for the proposed mixed-use development at 21 Oaks ave, Dee Why NSW, against the Deemed-to-Satisfy Provisions relating to Access for Persons with a Disability.

Part 2 'Matters for Further Consideration' of this report outlines the identified compliance issues that require further information or consideration and/or assessment as Performance Solutions.

Any Performance Solution will need to be detailed in a separate report and must clearly indicate methodologies for achieving compliance with the relevant Performance Requirements.

Item	Description	BCA Provision
<b>Performance Solutions Required</b>		
1.	It is proposed that the non-fire isolated stairway providing access between Basement 1 and Ground Level will only consist of a single handrail in lieu of two (2) handrails and TGSIs as required by BCA D4D4(a)(ii) and Clause 11 of AS1428.1-2009 with noting of the non-accessible landing areas and reference to the primary use for egress purposes, not communication between storeys.	BCA D4D4(a)(ii)
<b>Compliance Matters to be Addressed</b>		
2.	To satisfy Clause 13.3.1 of AS1428.1-2009, further design development is required at the building entrance doorway to ensure 530mm latch-side clearance and a 1:40 gradient is provided for the full 1450mm (L) doorway circulation space.	D4D2
3.	Further design development is required at the two (2) doorways providing access to the Bin Room which do not comply with the requirements of AS1428.1-2009.	D4D2
4.	Further design development is required at the doorway (both approaches) providing access from the Retail accessible parking bay to ensure 510mm 530mm latch-side clearance is provided for the full 1450mm (L) as per Figure 31(d) and (h) of AS1428.1-2009.	D4D2
5.	Further design development is required at the entrance doorway of each Storage Room noted on Level to provide compliant doorway circulation space internally in line with Figure 31(h) and a turning space in line with Figure 5 of AS1428.1-2009 at the end of the accessway.	D4D2
6.	Ensure doorway circulation space, latch-side clearance and an 850mm clear width opening is provided in line with AS1428.1-2009 at the two (2) doorways providing access to/from the Terrace within each Commercial tenancy. Including a level transition.	D4D2
7.	Further design development is required at the unisex accessible sanitary compartment located on Level 01 to provide compliant doorway circulation	D4D2

	space and latch-side clearance externally in line with Figure 31 (d) of AS1428.1-2009.	
8.	Further design development is required to provide compliant doorway circulation space at the top of the 1:20 'ramp' and a 1200mm x 1200mm landing at the base of the 'ramp' within the allotment boundary to comply with AS1428.1-2009.	D4D3
9.	Further design development is required at the building entrance into the Class 6 (RET01) part of the building, to satisfy D4D3(1)(a) of the BCA, to comply with the requirements of D4D3(5) which requires one (1) door leaf to provide 850mm clearance in accordance with AS1428.1-2009.	D4D3
10.	900 x 900mm circulation space externally of the Male ambulant doorway and clear of airlock door swing as per Figure 34 (b) and Figure 53(B)(c) of AS1428.1-2009 is required at the Level 01 sanitary facilities.	F4D5
11.	Further design development is required at both the male and female ambulant sanitary compartment to provide a compartment width of 900 to 920mm as per Figure 53(A) of AS1428.1-2009. This includes a 900 x 900mm circulation space forward of the WC pan and clear of the washbasin and door swing.	F4D5
12.	Please refer to Part 2.10.14 of this report for areas requiring further design development to satisfy Livable Housing Design Guidelines Silver Level (LHDG) requirements	LHDG
13.	Please refer to Part 2.10.15 for areas requiring further design development to satisfy Adaptable Housing Code (AS4299-1995) requirements.	AS4299-1995
<b>Further Information Required</b>		
1.	following areas of The Development require further detailed information/confirmation with regards to exact area/room usage to determine feasibility of accessibility exemption under BCA Clause D4D5 / DAPS Clause D3.4: <ul style="list-style-type: none"> <li>• Ground Level – Storage;</li> <li>• Basement 02 – Storage.</li> </ul>	D4D5
2.	Pre-adaptable layouts shall be provided for all adaptable units to verify compliance with 'Visitability' requirements and Objectives of AS4299-1995 and Livable Housing Design Guidelines. Currently, only post-adaptable unit layouts are provided.	AS4299-1995

The Annexures of this Report provide detailed assessments of the proposal against all compliance requirements.

## NCC 2022 Clause Numbering

BCA2022 uses a new structure and clause referencing system to create better consistency across all volumes of the NCC. While the new Section-Part-Type-Clause system makes the NCC look different at first, it's intended to improve user experience and make it more web accessible.

The new structure results in a reorganisation of specifications and parts, some of which are contained in the table below.

The NCC uses a uniform clause numbering system across each of its three volumes. This system is called Section-Part-Type-Clause (SPTC). In each clause number-

- + The first letter indicates which NCC section or part it sits within;
- + The first number indicates the number of the Part within a section or the number of a Specification.
- + The second letter indicates the clause type. It will be either G, O, F, P, V, D, or C. and these are explained below.
- + The second number is the clause number within each Part of Specification.

The clause Types used in the NCC are as follows:

- + G = Governing requirements (mandatory)
- + O = Objective (guidance)
- + F = Functional Statement (guidance)
- + P = Performance Requirement (mandatory) V = Verification Method (optional)
- + D = Deemed-to-Satisfy Provision (optional)
- + C = Clause in a Specification (can be mandatory or optional depending on how the Specification is called up by the NCC).

## 1.0 Basis of Assessment

### 1.1 LOCATION

The proposed mixed-use development, is located at 21 Oaks Ave Dee Why NSW (referred to as “The Development” throughout this report).

The Development involves a new mixed-use building consisting of the following:

- + Three (3) levels of carparking;
- + One (1) retail tenancy on the Ground Floor;
- + Two (2) commercial tenancies on Level 01;
- + Twenty-two (22) residential Sole Occupancy Units (SOUs) and associated common areas.

As per Figure 1 below, pedestrian and vehicular access to and into The Development is proposed via Oaks Ave.

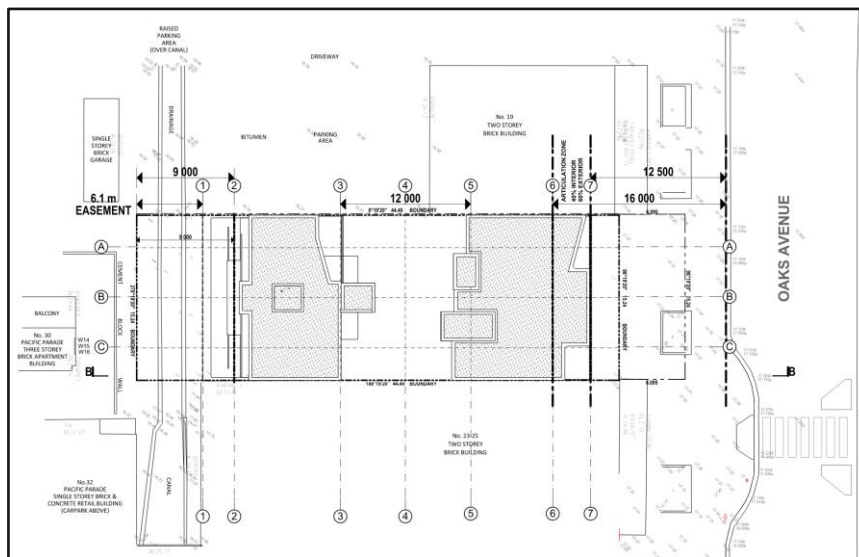


Figure 1 – Site Plan showing the site context and location for the Development



Figure 2 – Excerpted section showing the site section



## 1.2 PURPOSE

The purpose of this report is to assess the proposed building against the documents and their relevant Deemed to Satisfy requirements. The report is intended to clearly outline those areas where compliance is not achieved and provide recommendations to achieve compliance:

- + Disability (Access to Premises – Buildings) Standards 2010 Compilation No. 2 (DAPS);
- + Design Quality of Residential Apartment Development 2015 (SEPP65)
- + Building Code of Australia 2022 Volume One – Part D4 and Clauses E3D7 and E3D8;
- + Warringah Council's Development Control Plan 2011 (DCP);
- + Adaptable Housing Code AS4299:1995 (AS4299) – As required by DCP; and
- + Applicable Australian Standards AS1428.1:2009, AS1735.12-1999, AS1428.4.1:2009 and AS2890.6:2009.

## 1.3 LIMITATIONS

This report is limited to an assessment of the access and amenity provisions for people with a disability against the documents as outlined in 1.2 above. It is not an assessment of the proposal against all provisions of the BCA and if this is required, a separate report will be necessary.

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

- + The structural adequacy or design of the building;
- + The inherent derived fire-resistance ratings of any existing or proposed structural elements of the building (unless specifically referred to); and
- + The design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic services.

This report does not include, or imply compliance with:

- + The Disability Discrimination Act (it cannot be guaranteed that that a complaint under the DDA will not be made, however should the building comply with BCA and the DAPS then those responsible for the building cannot be subject to a successful complaint); and
- + BCA Sections B, C, E (excl. Clauses E3D7 and E3D8), F, G, H, I, J, Parts D2 and D3; and
- + Demolition Standards not referred to by the BCA; and
- + Work Health and Safety Act; and
- + Construction Safety Act; and
- + Requirements of other Regulatory Authorities including, but not limited to, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like; and
- + Conditions of Development Consent issued by the Local Consent Authority; and

This Report does not assess the safety of the particular aspects of the building but merely the minimum standards called up by the documents outlined in Part 1.2 of This Report.

## 1.4 FEDERAL DISABILITY DISCRIMINATION ACT (DDA)

Disability is broadly defined and includes disabilities which are physical, intellectual, psychiatric, neurological, cognitive or sensory (a hearing or vision impairment), learning difficulties, physical disfigurement and the presence in the body of disease causing organisms.

All organisations have a responsibility, under the DDA, to provide equitable, dignified access to goods and services and to premises used by the public. Premises are broadly defined and would include all areas included within the subject development.

The DDA applies nationally and is complaint based. While the DAPS and the BCA are recognised as a design standard to satisfy certain aspects of the DDA, compliance with the BCA and the referenced standards does not guarantee that a complaint will not be lodged.

## 1.5 DISABILITY (ACCESS TO PREMISES – BUILDINGS) STANDARDS 2010 COMPILATION NO.2 (DAPS)

The aim of the DAPS is to provide the building and design industry with detailed information regarding the required access provisions associated with the design and construction of new buildings and upgrade to existing buildings.

The DAPS intends to provide certainty for the building industry in relation to meeting the requirements for access in new and upgraded buildings. They only apply to elements addressed within the Standards. All other elements related to premises will still be subject to the existing provisions of the DDA.

The DAPS generally aligns with the BCA and reference a range of Australian Standards relating to access and other associated matters.

They do not apply to existing buildings that are not undergoing upgrade; however they introduce the concept of the “Affected Part”. This means that new works need to be connected to the building’s Principal Pedestrian Entrance (PPE) by a continuous accessible path of travel/accessway complying with AS1428.1-2009. This can mean that an upgrade to the building may be necessary even where no new work is proposed to mitigate the risks of DDA complaints arising in the future.

## 1.6 DESIGN DOCUMENTATION

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

## 1.7 DEFINITIONS

### *Accessible*

Having features to enable use by people with a disability.

### *Accessway*

A continuous accessible path of travel (as defined in AS 1428.1) to, into or within a building.

### *Affected Part*

The affected part is;

1. The principal pedestrian of an existing building that contains a new part; and

- a. Any part of an existing, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.
- b. Continuous Accessible Path of Travel

An uninterrupted path of travel to, into or within a building providing access to all access facilities.

#### *Luminance Contrast*

The light reflected from one surface or component, compared to the light reflected from another surface or component.

#### *Ramp*

An inclined surface on a continuous accessible path of travel between two landings with a gradient steeper than 1 in 20 but not steeper than 1 in 14.

#### *Tactile Indicators*

Tactile Ground Surface Indicators (TGSIs)

Truncated cones and/or bars installed on the ground or floor surface, designed to provide pedestrians who are blind or vision-impaired with warning or directional orientation information

#### *Adaptable*

A housing unit which is designed and constructed to meet the performance requirements of Clause 2.2 of AS 4299-1995.

## 2.0 Key Compliance Considerations

### 2.1 GENERAL

Accessibility has been assessed against the documents outlined in Part 1.2 of this Report. The following is a summary of all the individual elements that relate directly to the ability of a person with a disability to access all the portions of the building required to be accessible.

### 2.2 CLASSIFICATION

Under the provisions of Parts A6 of BCA and Part A4 of the Access Code, the building has been classified as follows:

*Table 1: Building Classification*

Class	Level	Description
Class 2	Ground Level – Level 06	Residential Sole-Occupancy Units identified as Units 01 to 22.
Class 7a	Basement 01, Basement 02 and Part of Ground Level.	Carparking.
Class 5	Level 01	Two (2) Commercial Tenancies (COM01 and COM02)
Class 6	Ground Level.	Proposed Retail Tenancy (RET01)

### 2.3 DIMENSIONS AND TOLERANCES

The Premises Standards and BCA contain the minimum standards for building construction and safety, and therefore generally stipulates minimum dimensions which must be met. Jensen Hughes' assessment of the plans and specifications has been undertaken to ensure the minimum dimensions have been met.

The designer and builder should ensure that the minimum dimensions are met onsite and consideration needs to be given to construction tolerances for wall set outs, applied finishes and skirtings to corridors and bathrooms for example, tiling bed thicknesses and the like which can adversely impact on critical matters such as access for people with disabilities, stair and corridor widths and balustrade heights.

### 2.4 PERFORMANCE BASED DESIGN – PERFORMANCE SOLUTIONS

There are specific areas throughout the development where strict Deemed-to-Satisfy Premises Standards and BCA Compliance will not be achieved by the proposed design and site constraints. These matters will need to be addressed in a detailed Performance Solution Report to be prepared for this development under separate cover:

Table 2: Performance Solutions

Item	Description of Performance Solution	DTS Provision
1.	It is proposed that the non-fire isolated stairway providing access between Basement 1 and Ground Level will only consist of a single handrail in lieu of two (2) handrails and TGSIs as required by BCA D4D4(a)(ii) and Clause 11 of AS1428.1-2009 with noting of the non-accessible landing areas and reference to the primary use for egress purposes, not communication between storeys	D4D4(a)(ii)

## 2.5 COUNCIL'S DEVELOPMENT CONTROL PLAN REQUIREMENTS (DCP)

Warringah DCP 2011 provides Council's planning controls on the provisions of Accessibility and Adaptability under Part C and Part D of that Plan. Part C3 'Parking Facilities' Control 7 and Part D18 'Accessibility and Adaptability' of DCP Control 1 to 9 are further explored as per Table 3 of this Report.

Table 3: Controls for Parking Facilities

Item No	Control	Comment	Compliance
1.	Where appropriate, carparking which meets the needs of people with physical disabilities must be provided in accordance with the relevant Australian Standards	The Development can be designed to meet the relevant requirements of relevant/applicable BCA clauses contained within Part D4 and relevant Australian Standards such as AS2890.6-2009 to satisfy this Control of the DCP.  Refer to Part 2.10 of this Report for further comments.	<b>Compliance Readily Achievable – Refer to part 2.10 of this Report.</b>

Table 4: Controls for Accessibility and Adaptability

Item No	Control	Comment	Compliance
1.	The design is to achieve a barrier free environment with consideration given to the design of door handles and switches, entrances and corridors. Steep, rough and slippery surfaces, steps and stairs and narrow paths should be avoided.	The Development can be designed to meet the relevant requirements of relevant/applicable BCA clauses contained within Part D4 and relevant Australian Standards such as AS1428.1-2009 to satisfy this Control of the DCP.  Refer to Part 2.10 of this Report for further comments.	<b>Compliance Readily Achievable – Refer to part 2.10 of this Report.</b>
2.	There are to be continuous, independent	The Development can be designed to meet the relevant requirements of relevant/applicable	<b>Compliance Readily</b>

Item No	Control	Comment	Compliance
	and barrier-free access ways incorporated into the design of buildings.	BCA clauses contained within Part D4 and relevant Australian Standards such as AS1428.1-2009 to satisfy this Control of the DCP.  Refer to Part 2.10 of this Report for further comments.	<b>Achievable – Refer to part 2.10 of this Report.</b>
3	Pathways are to be reasonably level with minimal cross fall and sufficient width, comfortable seating and slip-resistant floor surfaces.	The pedestrian entry path of travel consists of a 1:20 walkway that can be designed to meet the relevant/applicable BCA clauses contained within Part D4 and relevant Australian Standards such as AS1428.1-2009 to satisfy Part D18, Control 3 of the DCP.  Refer to Part 2.10 of this Report for further comments.  Given the stage of this development, detailed information pertaining to crossfall and slip resistance floor surfaces shall be provided post-DA Stage.	<b>Compliance Readily Achievable.</b>
4	There is to be effective signage and sufficient illumination for people with a disability.	Detailed information to be provided at post-DA stage for further assessment against Part D18, Control 4 of the DCP	<b>Can readily be achieved during subsequent detailed design development stages, post-DA</b>
6.	Tactile ground surface indicators for the orientation of people with visual impairments are to be provided in accordance with the relevant Australian Standard.	Detailed information to be provided at post-DA stage for further assessment against Part D18, Control 6 of the DCP	<b>Can readily be achieved during subsequent detailed design development stages, post-DA</b>
7.	Access for people with a disability is to be provided at the main entrance to the development.	The Main entrance of the development requires further design development to meet the relevant requirements of relevant/applicable BCA clauses contained within Part D4 and relevant Australian Standards such as	<b>Does not Comply – Refer to Part 2.10 of this Report.</b>

Item No	Control	Comment	Compliance
		AS1428.1-2009 to satisfy this Control of the DCP.  Refer to Part 2.10 of this Report for further comments.	
8.	Development is to comply with Australian Standard AS1428.2.	As we are assessing this development against the 2022 Building Code of Australia (BCA) where AS1428.1-2009 is the referenced standard, AS1428.2 does not apply.	N/A
9.	Where a development comprises at least five (5) dwellings, 10% (rounded up to next whole number) of dwellings shall be capable of being adapted (Class C) under AS4299	The Development consists of up to a total of twenty-two (22) SOUs with three (3) proposed to be adaptable dwellings.  This equates to an adaptable SOU provision rate of no less than 10% for The Development to readily satisfy Part D18, Control 9 of the DCP.  Refer to Part 2.10 of this Report for further comments.	<b>Compliance Readily Achievable subject to further design development - Refer to Part 2.10 of this Report.</b>

## 2.6 RESIDENTIAL SOLE OCCUPANCY UNITS

The following table summarises the required accessible features for the proposed Residential SOUs. This is based upon the Premises Standards Access Code, SEPP65 Apartment Design Guide, Council DCP and BCA;

Table 5: Residential Sole Occupancy Units

Unit Type	SOUs
Adaptable SOUs	<p>It is understood that there will be a grand total of twenty-two (22) SOUs proposed throughout The Development including an allocation of three (3) adaptable SOUs as per the following distribution:</p> <ul style="list-style-type: none"> <li>Level 01 – Unit 02;</li> <li>Level 05 – Unit 16; and</li> <li>Level 06 – Unit 20.</li> </ul> <p>Total - Three (3) total.</p> <p>Of the twenty-two (22) SOUs, three (3) are currently proposed to be adaptable, which equates to an adaptable SOU provision rate of no less than 10% to readily satisfy Control 9 of the Warringah DCP 2011.</p>

Unit Type	SOUs
Livable SOUs	<p>It is understood that there will be a grand total of twenty-two (22) SOUs proposed throughout The Development including an allocation of four (4) Livable SOUs as per the following distribution:</p> <ul style="list-style-type: none"> <li>• Level 02 – Unit 04;</li> <li>• Level 03 – Unit 08; and</li> <li>• Level 05 – Unit 18 and Unit 19.</li> </ul> <p>Total - Four (4) total.</p> <p>The SEPP 65 Apartment Design Code requires that residential apartment developments achieve a benchmark of at least 20% of the total apartments incorporate the Livable Housing Guideline's Silver Level design features.</p> <p>As Adaptable SOUs can provide the dual purpose of Adaptability and Liveable Housing design features, a total of Four (4) SOUs are capable of satisfying the required minimum 20% benchmark provision of Silver Level Livable dwellings as required by SEPP65/ADG.</p>

Note: Adaptable SOUs can provide the dual purpose of adaptability and Liveable Housing design features.

## 2.7 AREAS REQUIRED TO BE ACCESSIBLE

The following areas of the building are required to be accessible:

*Table 6: Areas Required to be Accessible*

Area / Room	Description
<b>Class 2</b> Level 01 - Level 06	<p>(4) For a Class 2 building, common areas to be accessible as follows:</p> <p>(a) From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.</p> <p>(b) To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.</p> <p>(c) Where a ramp complying with AS 1428.1 or a passenger lift is installed—</p> <p>(i) to the entrance doorway of each sole-occupancy unit;</p> <p>and</p> <p>(ii) to and within rooms or spaces for use in common by the residents.</p> <p>(d) The requirements of (c) only apply where the space referred to in (c)(i) or (ii) is located on the levels served by the lift or ramp</p>
<b>Class 5</b>	To and within all areas normally used by occupants.



Area / Room	Description
Level 01	
<b>Class 6</b> Ground Level	To and within all areas normally used by occupants.
<b>Class 7a</b> Basement 01 and Basement 02	To and within any level containing accessible car parking spaces.

Note: The limitations and exemptions of Clauses D4D3, D4D4 and D4D5 of the BCA and Access Code been considered where applicable in the process of developing the above table.

## 2.8 LIVEABLE HOUSING DESIGN GUIDELINES REQUIREMENTS (LHDG)

The SEPP 65 Apartment Design Code requires that residential developments achieve a benchmark that at least 20% of the total apartments incorporate the Livable Housing Guideline's silver level universal design features. As Adaptable SOUs can provide the dual purpose of Adaptability and Liveable Housing design features, a total of Four (4) SOUs are capable of satisfying the required minimum 20% benchmark provision of Silver Level Livable dwellings as required by SEPP65/ADG. Refer to Annexure B which outline the requirements to satisfy the LHDG.

Note: These Guidelines do not take precedence over the requirements of the Disability (Access to Premises – Buildings) Standards 2010 or the Building Code of Australia.

## 2.9 ADAPTABLE HOUSING CODE ASSESSMENT SUMMARY (AS4299-1995)

Three (3) adaptable units are required in the development. The adaptable units are required to comply with AS4299(1995) – Class C (essential features incorporated). Pre and post adaption plans will be needed to demonstrate how the design would permit later alterations to suit individual requirements at minimal extra cost. Of the twenty-two (22) SOUs, three (3) are currently proposed to be adaptable, which equates to 10% and satisfies the benchmark requirement of the Warringah DCP 2011.

## 2.10 DESIGN ITEMS REQUIRING ATTENTION

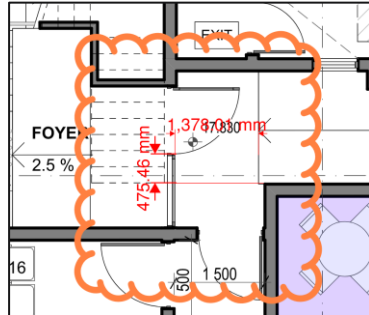
Assessment of the architectural design documentation against the Deemed-to-Satisfy Access Provisions of the Building Code of Australia, 2022 (BCA) has revealed the following areas where compliance with the BCA may require further consideration and/or may involve assessment as Performance-based *Performance Solutions*. Any *Performance Solutions* will be required to clearly indicate methodologies for achieving compliance with the relevant *Performance Requirements*.

### BCA/DAPS Part D4 – Access for people with a disability

#### 2.10.1 BCA Clause D4D2 – General building access requirements

Generally, a continuous accessible path of travel can be provided from the principal pedestrian entrance of the building, the accessible parking bays and to and within the building via the passenger lift aside from the following areas require further design development:

- To satisfy Clause 13.3.1 of AS1428.1-2009, further design development is required to ensure 530mm latch-side clearance and a 1:40 gradient is provided for the full 1450mm (L) doorway circulation space. Currently, the doorway circulation space overlaps onto the 1:20 walkway and is restricted by the RET01 structural wall.



Building Entrance doorway

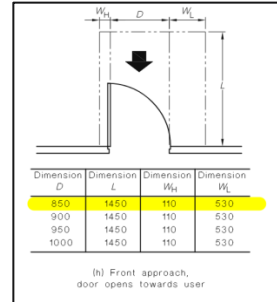
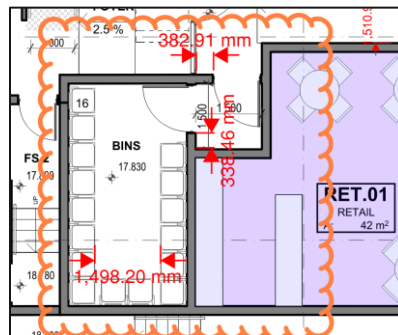


Figure 31(h) of AS1428.1-2009

- Further design development is required at the two (2) doorways providing access to the Bin Room where doorway circulation space in line with AS1428.1-2009 is not provided i.e. latch-side clearance and Length. It is recommended that access directly from the Foyer is considered that to assist in achieving compliant circulation space with AS1428.1-2009.



Bin Room

- Further design development is required at the doorway (both approaches) providing access from the Retail accessible parking bay to ensure 510mm 530mm latch-side clearance is provided for the full 1450mm (L) as per Figure 31(d) and (h) of AS1428.1-2009.

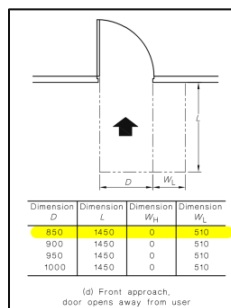
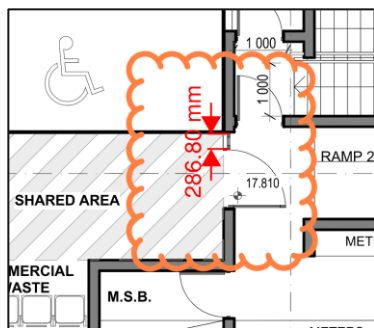


Figure 31(d) of AS1428.1-2009

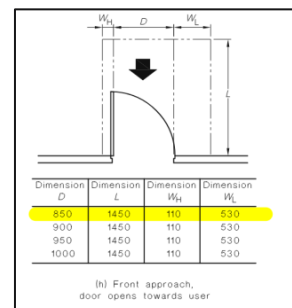
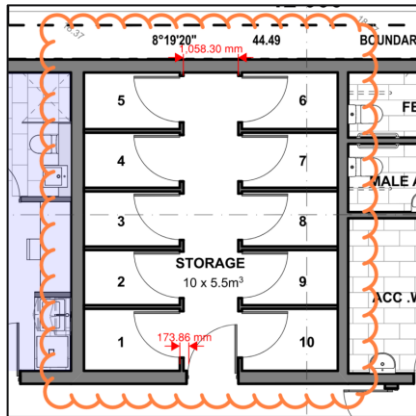
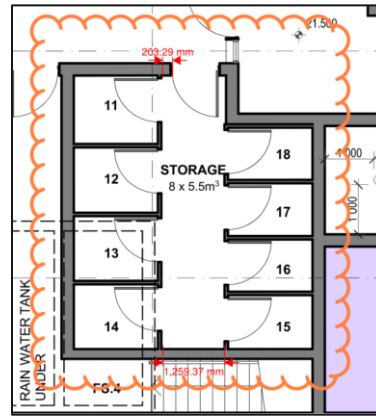


Figure 31(h) of AS1428.1-2009

- Further design development is required at the entrance doorway of each Storage Room noted on Level 01 to provide compliant doorway circulation space internally in line with Figure 31(h) and a turning space in line with Figure 5 of AS1428.1-2009 at the end of the accessway.



Level 01 Storage Room



Level 01 Storage Room

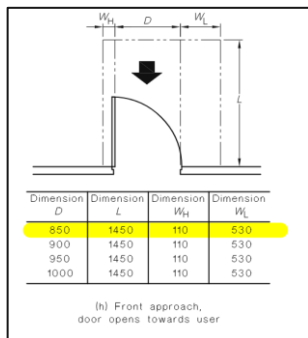


Figure 31(h) of AS1428.1-2009

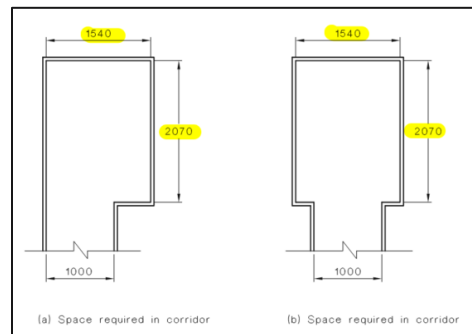
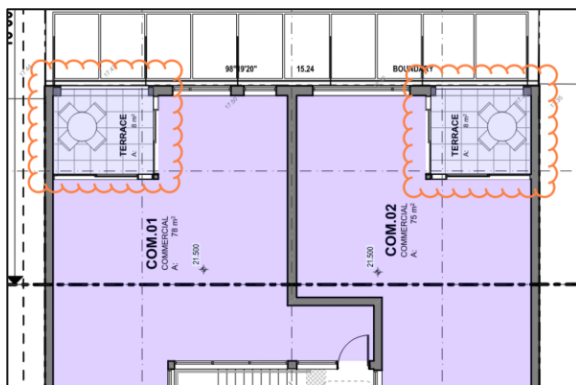
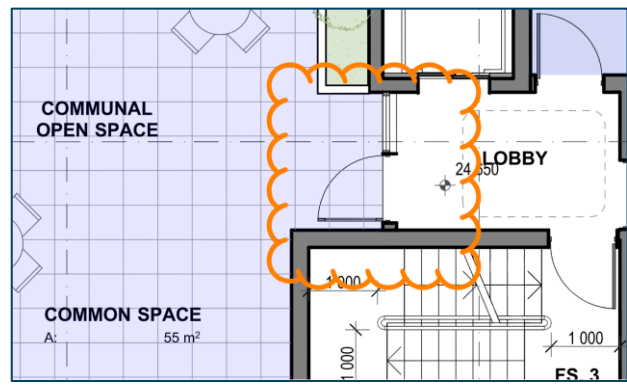


Figure 5 of AS1428.1-2009

- Ensure doorway circulation space, latch-side clearance and an 850mm clear width opening is provided in line with AS1428.1-2009 at the two (2) doorways providing access to/from the Terrace within each Commercial tenancy, including a level transition at each doorway. A level transition is required at the doorway providing access to the Communal Open Space also.

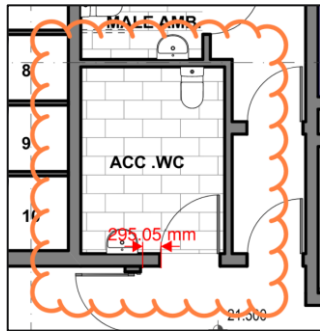


Commercial Terraces



Communal Open Space

- Further design development is required at the unisex accessible sanitary compartment located on Level 01 to provide compliant doorway circulation space and latch-side clearance externally in line with Figure 31 (d) of AS1428.1-2009.



Level 01 Accessible Sanitary Compartment

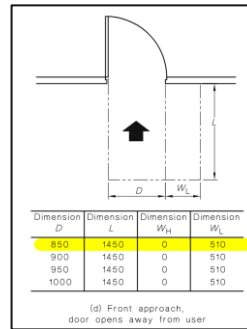
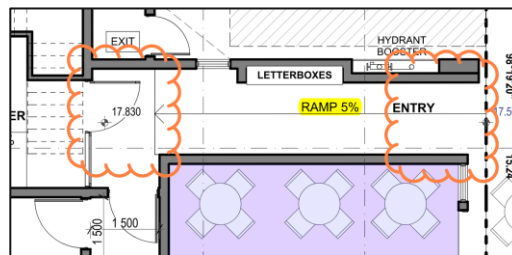


Figure 31(d) of AS1428.1-2009

### 2.6.2 BCA Clause D4D3 / DAPS Clause D3.2 – Access to buildings

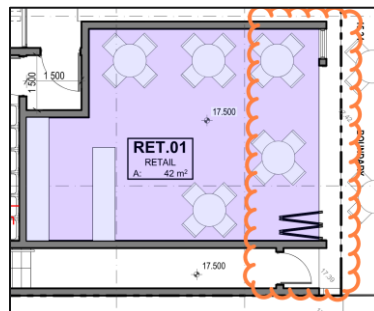
The Development currently demonstrates the following accessways to and into the building under D4D3 of the BCA which require further design development:

- D4D3(1)(a):** Further design development is required to provide compliant doorway circulation space at the top of the 1:20 'ramp' and a 1200mm x 1200mm landing at the base of the 'ramp' within the allotment boundary to comply with AS1428.1-2009. Note, a 1:20 gradient accessway is to be annotated as a 'walkway' in line with AS1428.1-2009, not a 'ramp'. Please refer to Point 1 under Part 2.6.1 and Point 20 of this Report.



Entry Walkway

- D4D3(1)(a):** Further design development is required at the building entrance into the Class 6 (RET01) part of the building, to satisfy D4D3(1)(a) of the BCA, to comply with the requirements of D4D3(5) which requires one (1) door leaf to provide 850mm clearance in accordance with AS1428.1-2009. This includes a level transition at the doorway. Current stacker door does not satisfy AS1428.1-2009. Consider an adjacent hinged or sliding doorway to satisfy this clause.



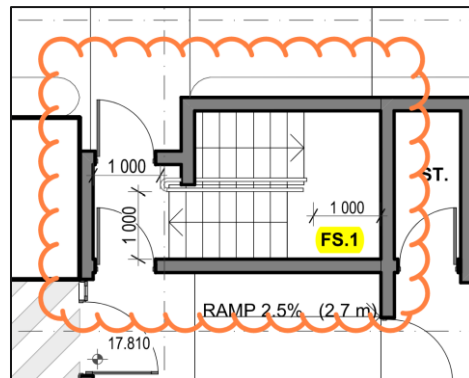
RET01 Pedestrian Entrance

- **D4D3(1)(c):** An accessway is capable of being provided from the one (1) retail accessible carparking space located on the Ground level via the path of travel to satisfy D4De(1)(c) of the BCA. Refer to Point 3 under Part 2.6.1 of this report for areas requiring further design development.

### 2.10.2 BCA Clause D4D4 / DAPS Clause D3.3 – Parts of buildings to be accessible

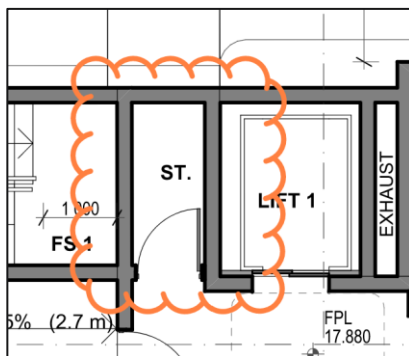
The Development can readily satisfy spatial planning requirements of BCA Clause D4D4 at the current stage of architectural design documentation with exception of the following:

9. It is proposed that the non-fire isolated stairway providing access between Basement 1 and Ground Level will only consist of a single handrail in lieu of two (2) handrails and TGSIs as required by BCA D4D4(a)(ii) and Clause 11 of AS1428.1-2009 and shall be supported via a Performance Solution, subject to certifier's concurrence.

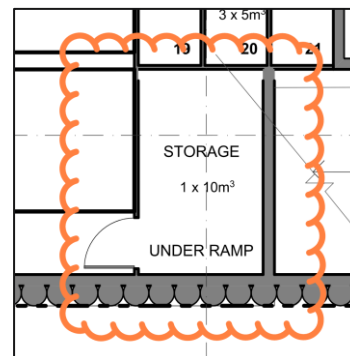


**Non-Fire Isolated Stairway – Ground to Level 01**

10. Pending confirmation of 2.10.3 of this Report (i.e. an area that is not feasible for accessibility exemption under BCA Clause D4D5) there can be additional requirement for provision of minimum 1540mm wide by 2070mm long clear wheelchair turning space within each space and increased door circulation space for the single swing entry doorway in line with AS1428.1-2009.



**Ground Level - Storage**



**Basement 02 - Storage**

Refer to Annexure B – Compliance Specifications for further comments.

### 2.10.3 BCA Clause D4D5/DAPS Clause D3.4 – Exemptions

Subject to certifiers concurrence, the areas listed below are to be viewed as inappropriate or unnecessary to provide access for people with a disability and thus, exempt in meeting compliance under D4D4 of the BCA:

- **Basement 01** – Sprinkler/Hydrant Pump Room;

- **Ground Level** – Services, M.S.B.

The following areas of The Development require further detailed information/confirmation with regards to exact area/room usage to determine feasibility of accessibility exemption under BCA Clause D4D5 / DAPS Clause D3.4:

- **Ground Level** – Storage;
- **Basement 02** – Storage.

#### 2.10.4 BCA Clause D4D6/DAPS Clause D3.5 – Accessible Car Parking

Documentation indicates one (1) accessible carparking space being provided on the Ground Level to satisfy the Class5/6 requirements of the BCA. The dimensions of the proposed accessible carparking space and associated shared space indicate that compliance with AS/NZS 2890.6-2009 is readily achievable.

Further design documentation during subsequent detailed design development stages post-DA, will allow for a more accurate assessment to ensure all elements comply with the requirements of AS/NZS 2890.6-2009.

Refer to Annexure B – Compliance Specifications for further comments.

#### 2.10.5 BCA Clause D4D7 / DAPS Clause D3.6 – Signage

This detailed requirement can readily be coordinated and addressed to comply during subsequent detailed development stages, post-DA.

#### 2.10.6 BCA Clause D4D8 – Hearing Augmentation

This detailed requirement can readily be coordinated and addressed to comply during subsequent detailed development stages, post-DA.

#### 2.10.7 BCA Clause D4D9 – Tactile indicators

This detailed requirement can readily be coordinated and addressed to comply during subsequent detailed development stages, post-DA.

#### 2.10.8 BCA Clause D4D10 – Wheelchair seating spaces in Class 9b assembly buildings

This requirement does not apply as there are no fixed seating proposed within the development.

#### 2.10.9 BCA Clause D4D11 – Swimming pools

This requirement does not apply as there is not swimming pool proposed for the development.

#### 2.10.10 BCA Clause D4D12 – Ramps

No ramps are documented as part of the development and as such, this requirements does not apply.

#### 2.10.11 BCA Clause D4D13 – Glazing on an accessway

This detailed requirement can readily be coordinated and addressed to comply during subsequent detailed development stages, post-DA.

## Part E3 Lift Installations

### 2.10.12 BCA Clause E3D7/E3D8 – Passenger Lift Types and their Limitations/Accessible Features Required for Passenger Lifts

The Development is proposed with two (2) passenger lifts proposing to provide access throughout the development. Each lift provides access to the following areas:

- Lift one (1) provides access from Basement 02 to Level 06; and
- Lift two (2) provides access from Level 01 to Level 06.

At current design stage, both passenger lifts are spatially capable of achieving compliance with BCA Clause E3D7/E3D8 of the BCA and AS1735.12-1999 subject to further detailed design refinement, post-DA.

## Part F4 Sanitary and other facilities

### 2.10.13 BCA Clause F4D5/F4D6/F4D7– Accessible Sanitary Facilities/Accessible Unisex Sanitary Compartments/Accessible Unisex Showers

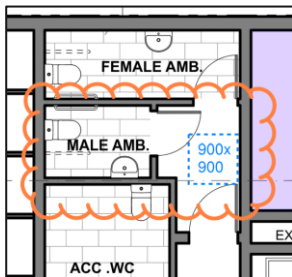
The Development is proposed with the following sanitary facilities for people with disabilities:

#### Level 01

- > One (1) unisex accessible sanitary compartment containing a Left Hand (LH) transfer pan and basin is provided with circulation spaces capable of being achieved as per AS1428.1-2009.
- > One male (1) and one (1) female ambulant sanitary compartment is noted to satisfy part F4D5(c) of the BCA.

Further design development is required at the ambulant sanitary compartments to provide the following in line with AS1428.1-2009:

11. 900 x 900mm circulation space externally of the Male ambulant doorway and clear of airlock door swing as per Figure 34 (b) and Figure 53(B)(c) of AS1428.1-2009.



Level 01 Accessible Sanitary Compartment

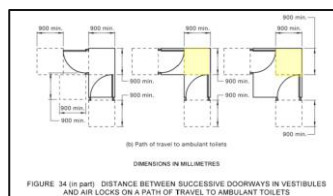


Figure 34 (b) of AS1428.1-2009

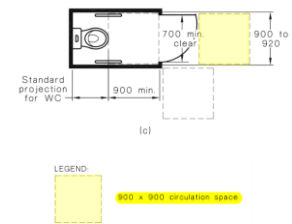
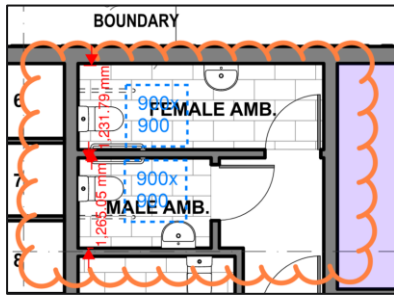


Figure 53(c) of AS1428.1-2009

12. Further design development is required at both the male and female ambulant sanitary compartment to provide a compartment width of 900 to 920mm as per Figure 53(A) of AS1428.1-2009. This includes a 900 x 900mm circulation space forward of the WC pan and clear of the washbasin and door swing. Currently, the compartment is documented at approximately 1265mm wide.



Level 01 Accessible Sanitary Compartment

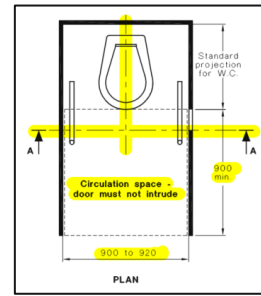


Figure 53(A) of AS1428.1-2009

While AS1428.1-2009 is applicable, please see reference to AS1428.1-2021 which provides a visual demonstration and an example as to how the compartment could be designed/configured to achieve the required clearances within the compartments in discussion.

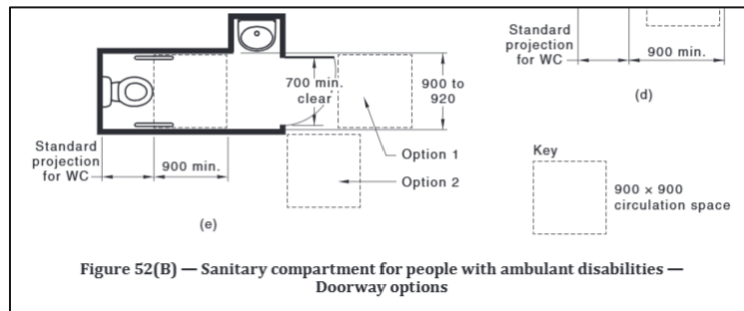


Figure 52(B) — Sanitary compartment for people with ambulant disabilities — Doorway options

Once the above have been rectified, the sanitary compartment(s) shall contain sufficient dimensions to readily comply in accordance with AS1428.1-2009. Detailed set outs and selections of all required sanitaryware, fixtures and fittings can readily be coordinated, detailed, and addressed to comply with AS1428.1-2009 during subsequent detailed design development stages, post-DA, leading up to construction certificate documentation

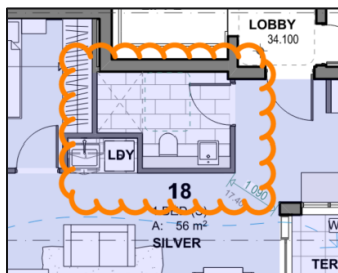
Refer to Annexure B – Compliance Specifications for further comments.

**2.10.14 Livable Housing Design Guideline (LHDG) Design Assessment**

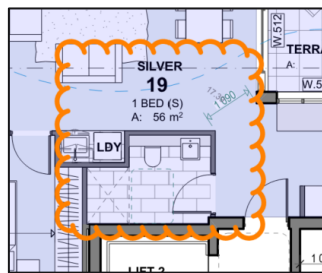
13. To satisfy Livable Housing Design Guidelines Silver Level Element 4, the WC pan is required to be positioned in the corner of the room when located in a combined bathroom. Unit 18, Unit 19 currently do not comply.

Ensure the required 900 x 1200mm circulation space forward of the WC pan is provided and clear of the door swing to satisfy Element 4 of LHDG. Currently not provided in Unit 08 and Unit 04.

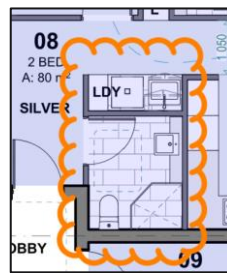
**Refer to Annexure B for Compliance Specifications regarding LHDG.**



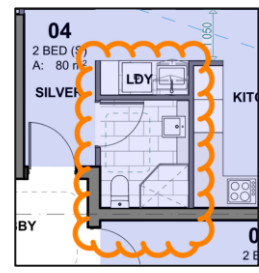
Unit 18



Unit 19



Unit 08



Unit 04



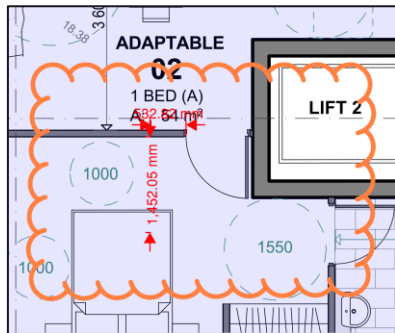
**2.10.15 Adaptable Housing Code (AS4299-1995) Design Assessment**

- 14. Pre-adaptable layouts shall be provided for all adaptable units to verify compliance with 'Visitability' requirements and Objectives of AS4299-1995 and Livable Housing Design Guidelines. Currently, only post-adaptable unit layouts are provided.

Note, extra capped-off plumbing services to be provided if fixture relocation is required at post-adaptation stage. It is recommended to arrange fixtures in post-adaption location where possible. Applicable to the bathroom and kitchen area.

**Refer to Annexure B for Compliance Specifications regarding AS4299-1995.**

- 15. For Adaptable Unit 08, at the post-adaptation stage, doorway circulation space in line with AS1428.1-2009 is not provided due to the bed encroaching into the required space.



Unit 08

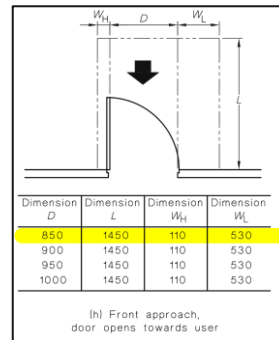
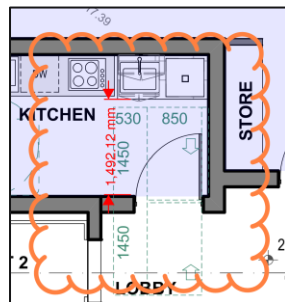


Figure 31(b) of AS1428.1-2009.

- 16. For Adaptable Unit 08, given the approach to the SOU entrance doorway internally, ensure Figure 31(b) of AS1428.1-2009 is provided as the current arrangement does not comply.



Unit 34

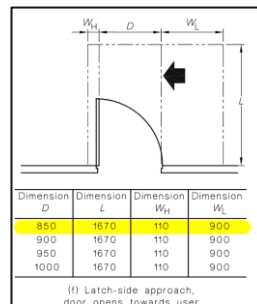
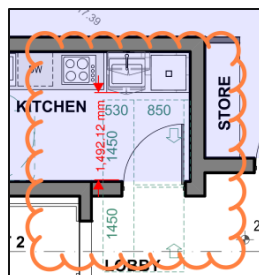


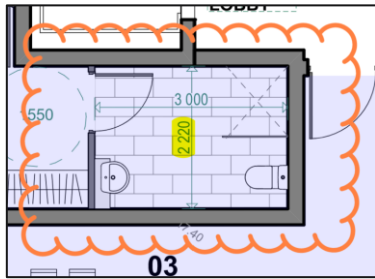
Figure 31(b) of AS1428.1-2009.

- 17. For Adaptable Unit 08, ensure a 1550 x 1500mm circulation space is provided forward of the laundry. Currently, not provided.

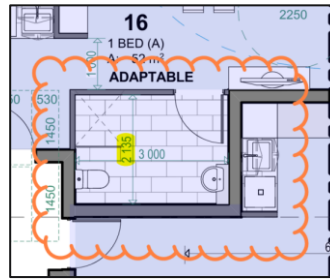


Unit 08

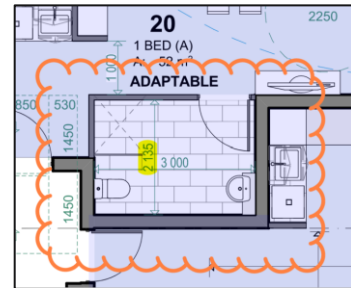
18. For all Adaptable units, at the post-adaptation stage, to satisfy AS4299-1995 in this current configuration, provide 2350mm wide x 2780mm long bathroom dimensions to satisfy the circulation space requirements of AS1428.1-2009.



Unit 02



Unit 16

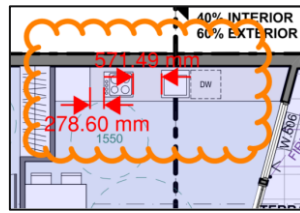


Unit 20

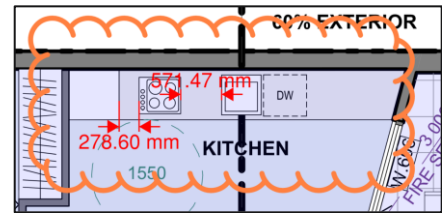
19. For all Adaptable Units, at the post-adaptation stage, to satisfy AS4299-1995, a refrigerator should be located adjacent to an 800mm wide work surface. This is in addition to the requirement of the kitchen sink, cooktop, and oven being located adjacent to an 800mm wide work surface in accordance with AS4299-1995.



Unit 02

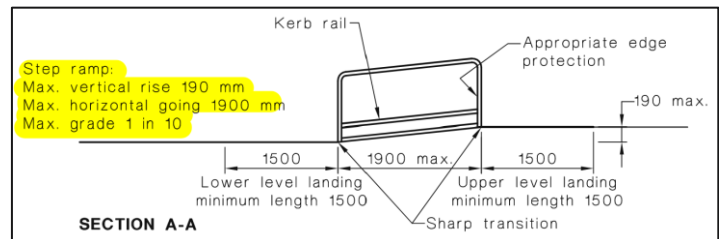
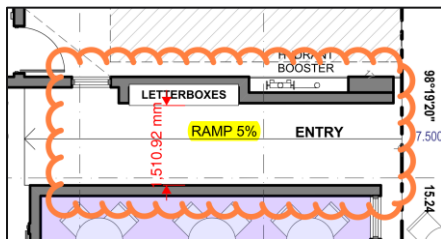


Unit 16



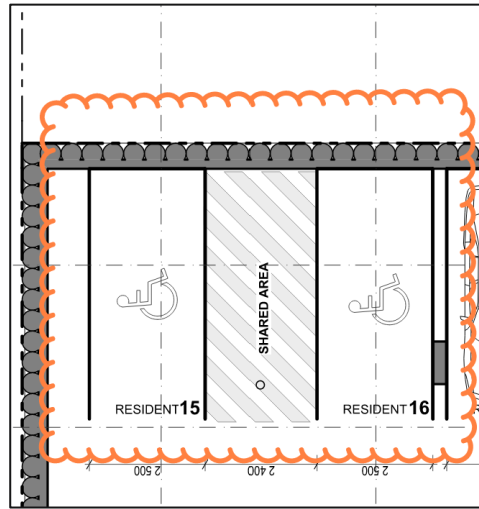
Unit 20

20. To satisfy Clause 3.8 of AS4299, the letterboxes are required to be on a 1:40 gradient hard standing accessible pathway 1540 x 2070mm circulation space forward of the letterboxes. Letterboxes are currently noted on a 1:20 gradient pathway with only 1510mm (wide) circulation space provided and thus non-compliant. Consider a step-ramp in line with Figure 22(A) of AS1428.1-2009 to assist in achieving compliance.



21. To satisfy Clause 3.7.3 of AS4299, one (1) car parking space per adaptable units shall have minimum dimensions as specified in Clause 3.7.2 of AS4299 i.e. 5400mm (length) x 380mm (width). Currently, only two (2) adaptable carparking spaces are proposed – Please provide one (1) additional carparking space to serve the number of adaptable SOUs proposed, being three (3).

The adaptable unit car parking spaces are currently designed to AS2890.6-2009, while permissible, it is strongly recommended that AS4299-1995 is applied where a 3800mm wide x 5400mm length space is required. Ensure a 2.5m min vertical clearance is provided above the space. The proposed allocation i.e. Resident 15 and 16 does not reflect the adaptable unit number as per the general arrangement plans which are SOU 02, 16 and 20.



# *Annexures*

## Annexure A - Design Documentation

This report has been based on the following design documentation.

Table 4: Architectural Plans

Architectural Plans Prepared by Gartner Trovato Architects			
Drawing Number	Revision	Date	Title
A 00	A	28/02/2024	COVER SHEET
A 01	A	28/02/2024	SITE PLAN + SITE ELEVATION
A 03	A	28/02/2024	BASEMENTS 02 + 01
A 04	A	28/02/2024	GROUND FLOOR + LEVEL 01
A 05	A	28/02/2024	LEVELS 02 + 03
A 06	A	28/02/2024	LEVELS 04 + 05
A 07	A	28/02/2024	LEVELS 06 + ROOF
A 08	A	28/02/2024	SECTION A-A
A 09	A	28/02/2024	SECTION B-B
A 10	A	28/02/2024	ELEVATIONS NORTH + SOUTH
A 11	A	28/02/2024	ELEVATIONS EAST
A 12	A	28/02/2024	ELEVATIONS WEST
A 23	A	28/02/2024	COURTYARD ELEVATIONS
A 00	A	28/02/2024	COVER SHEET
A 01	A	28/02/2024	SITE PLAN + SITE ELEVATION

## Annexure B - Compliance Specification

### Design Certification

Further due to the level of detail provided at this stage the following items are to form part of a design statement or specification:

#### General

1. Tactile ground surface indicators will be installed at the top and bottom of stairways / ramps (other than fire isolated stairways / ramps); and where an overhead obstruction is less than 2 metres above the floor level. Tactile ground surface indicators will comply with Sections 1 and 2 of AS1428.4.1-2009 (incl. Amendments 1 and 2).
22. On an accessway where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights or glazing capable of being mistaken for a doorway or opening will be clearly marked and comply with Clause 6.6 of AS1428.1-2009. A solid non-transparent contrasting line not less than 75mm wide is to extend across the full width of the glazing panel. The lower edge of the contrasting line is to be located between 900-1000mm above the plane of the finished floor level. The contrasting line is to provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2 metres of the glazing on the opposite side.
23. All doorways will have a minimum luminance contrast of 30% in accordance with Clause 13.1 of AS1428.1-2009.
24. Fixtures and fittings in accessible sanitary facilities will be provided and installed in accordance Clause 15 of AS1428.1-2009.
25. Fixtures and fittings in ambulant facilities will be provided and installed in accordance Clause 16 of AS1428.1-2009.
26. Walkways will comply with Clause 10 of AS1428.1-2009.
27. For the walkways, the floor or ground surface abutting the sides of the walkway will be firm and level of a different material to that of the walkway at the same level and follow the grade of the walkway and extend horizontally for a minimum of 600mm, or be provided with a kerb or kerb rail in accordance with Clause 10.2 of AS1428.1-2009.
28. Stairways will comply with Clause 11 of AS1428.1-2009.
29. The fire isolated stairs will comply with Clause 11.1(f) and (g) of AS1428.1-2009.
30. Handrails will comply with Clause 12 of AS1428.1-2009.
31. Grabrails will comply with Clause 17 of AS1428.1-2009.
32. Accessible car spaces will achieve compliant headroom clearances in accordance with Clause 2.4 of AS2890.6-2009. Refer to below for diagrammatic explanation.

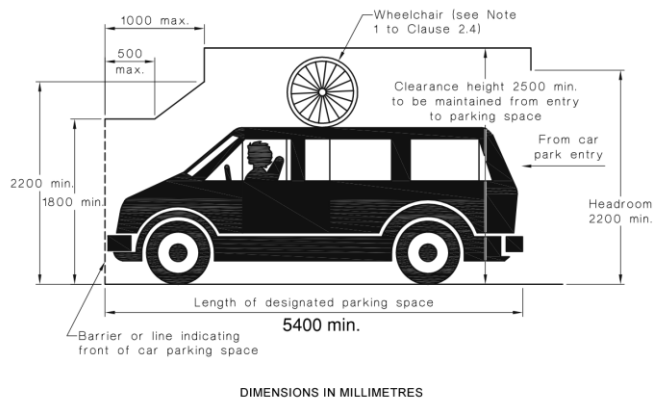


FIGURE 2.7 HEADROOM REQUIRED ABOVE CAR SPACES FOR PEOPLE WITH DISABILITIES

33. Demarcation will be provided in the accessible car space and adjacent shared zone in accordance with Clause 3.1 and 3.2 of AS2890.6-2009. Refer to below for diagrammatic explanation.

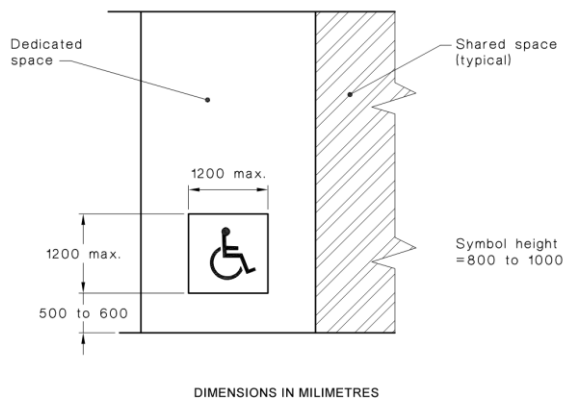


FIGURE 3.1 USE OF SYMBOL OF ACCESS TO IDENTIFY SPACES

34. Bollards will be provided in the shared disabled car space area in accordance with Clause 2.2.1(e) of AS2890.6-2009. Refer to below for diagrammatic explanation.

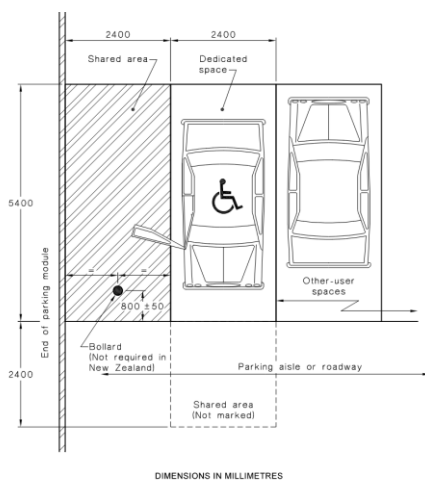


FIGURE 2.2 EXAMPLE OF AN ANGLE PARKING SPACE WITH SHARED AREA ON ONE SIDE ONLY—DIMENSIONS FOR AUSTRALIA ONLY\*

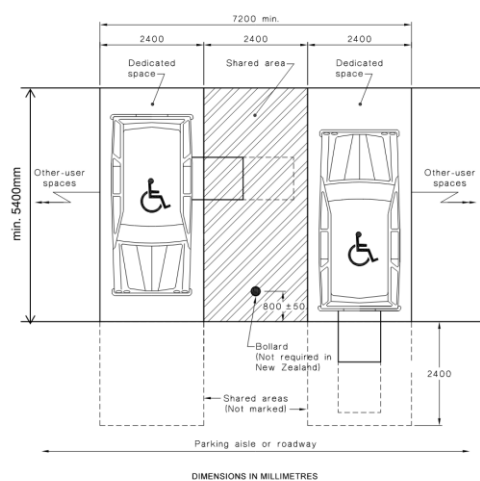


FIGURE 2.3 EXAMPLE OF TWO PARKING SPACES WITH A COMMON SHARED AREA—DIMENSIONS FOR AUSTRALIA ONLY\*

35. Switches and power points will comply with Clause 14 of AS1428.1-2009.

36. Floor and ground floor surfaces on accessible paths and circulation spaces including the external areas will comply with Clause 7 of AS1428.1-2009. Any level difference over 3mm must be ramped according AS1428.1 Clause 10.5.
37. Braille and tactile signage will comply with BCA Clause D4D7 and Specification 15.
38. Signage will need to comply with Clause 8 of AS1428.1-2009.
39. The passenger lifts will comply with BCA E3D7, E3D8 and AS1735.12-2009.
40. The unobstructed height of a continuous accessible path of travel will be a minimum of 2000mm and 1980mm at doorways. Refer to below for diagrammatic explanation.

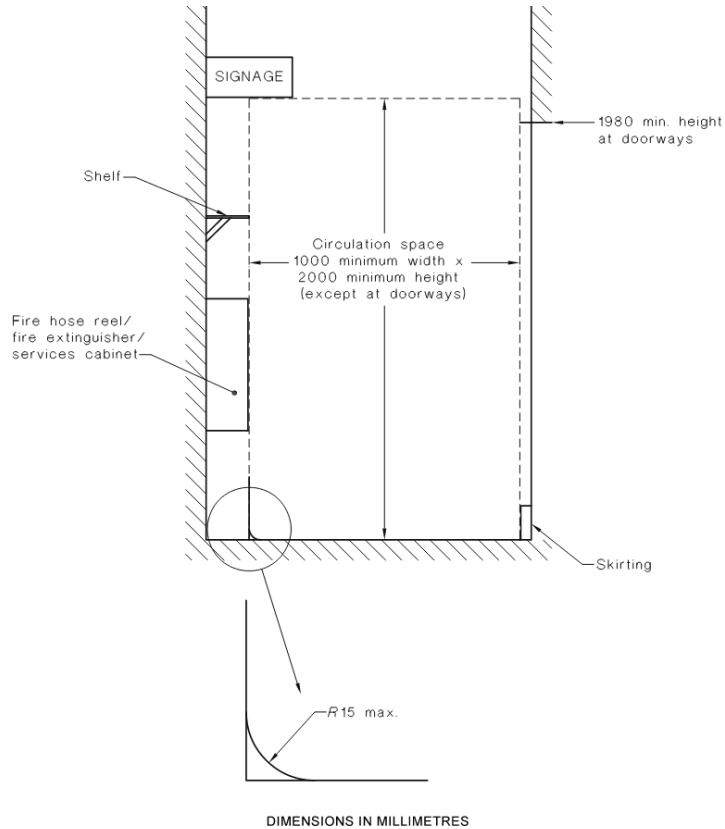


FIGURE 2 CONTINUOUS ACCESSIBLE PATH OF TRAVEL—MINIMUM HEIGHT AND WIDTH

41. Door handles and the like, will be in accordance with Clause 13.5 of AS1428.1-2009.

### Adaptable Housing Units

1. All ground surfaces will be slip resistant to comply with HB197/AS4856.
2. Letterboxes will be on a hard stand area connected to an accessible pathway in accordance with Clause 3.8 of AS4299.
3. The unit entry doors to the adaptable units will comply with the circulation spaces required under AS1428.2 in accordance with Clause 4.3.1 of AS4299.
4. Door hardware will be compliant with AS1428.1-2009 and all external doors will be keyed alike in accordance with Clause 4.3.4 of AS4299.



5. Internal door openings within the adaptable units will have a clear opening of 820mm with door circulation spaces complying with AS1428.1 in accordance with Clauses 4.3.3 and 4.3.7 respectively of AS4299.
6. A telephone outlet will be provided adjacent to GPO in living/dining area in accordance with Clause 4.7.4 of AS4299.
7. The kitchen cabinet design will allow for the removal of the cabinets under the sink and adjacent work surface in accordance with Clause 4.5.6 of AS4299.
8. Cook tops to be provisioned with isolating switches or gas stop valves that can be easily and safely operated with the cook top is in use in accordance with Clause 4.5.7 of AS4299.
9. GPO's will comply with AS 1428.1 with at least one double GPO provided within 300mm of front of work surface and a GPO for refrigerator will be easily reachable when the refrigerator is in its operating position in accordance with Clause 4.5.11 of AS4299.
10. The adaptable bathroom will be provisioned for the fit-out to comply with AS1428.1 in accordance with 4.4.1 of AS4299.
11. The shower of the adaptable bathroom will be hob-less in accordance with Clause 4.4.4(f) of AS4299.
12. The bathrooms will be waterproofed to comply with AS3740.
13. The soap holder will be recessed in accordance with Clause 4.4.4(f) of AS4299.
14. Shower heads and taps will be located at a height and clearance compliant with AS1428.1 in accordance with Clause 4.4.4(f) of AS4299.
15. Provision for the installation of all grabrails, shower hardware, and folding seat will be provided in the adaptable bathroom in accordance with Clause 4.4.4(h) of AS4299.
16. Provision for the installation of a washbasin with clearances as required by AS1428.1 will be provided in accordance with Clause 4.4.4(g) of AS4299.
17. A double GPO will be provided beside the mirror in the adaptable bathroom in accordance with Clause 4.4.4(d) of AS4299.
18. Provision for the toilet to comply with AS1428.1, will be provided, including locating the pan in the correct position, and the provision for the installation of all grabrails in accordance with Clauses 4.4.1, 4.4.3 and 4.4.4(h) of AS4299.
19. Where a clothes line is provided and accessible path of travel will be provided to this in accordance with Clause 4.8(a) of AS4299.
20. A double GPO will be provided in the laundry, as will a shelf at a height of 1200mm maximum in accordance with Clause 4.8 of AS4299.
21. Lighting will be provided to the adaptable units in accordance with Clause 4.10 of AS4299.

### **SEPP 65 – Livable Housing Design Guidelines (LHDG)**

1. Entrance door to have 820mm min. clear door width opening, level transition (5mm max. vertical tolerance) and reasonable shelter from the weather.
2. Entrance door to have 1200x1200mm level landings.
3. "Ramped threshold" (Fig 1b) allowed between 5-56mm height change.
4. Level & "step-free" entrance connected to the "safe and continuous pathway".

5. Waterproofing and termite management at entry door (as per NCC).
6. Garages to have minimum 3200x5400mm, an even, firm and slip resistant surface with 1:40 max. level surface (1:33 max. asphalt).
7. All internal doors to have 820mm min. clear door opening at entry level rooms, 5mm max. vertical tolerance surface, and 1000mm min. internal corridors at entry level rooms.
8. Toilet to be on entry level (ground floor).
9. If WC is located in a separate room. WC pan circulation space to be 900x1200mm front if WC (door not to encroach) (Fig 3a).
10. If WC is located within a bathroom. WC pan circulation space to be in the corner of the room to enable installation of grabrails (door not to encroach) (Fig 3b).
11. Bathroom to have slip resistant and hobless shower recess (portable shower screens allowed)
12. Shower recess located in a room corner to enable the installation of grabrails.
13. Walls to be constructed of solid masonry or concrete, otherwise to be reinforced (1100N min. withstand in all directions).
14. For WC, the reinforcement to be 25mm thick noggings (Fig 6a), or 12mm thick sheeting (Fig 6b)
15. For baths, reinforcement to be 25mm thick noggings (Fig 7a), or 12mm thick sheeting (Fig 7b)
16. For showers, reinforcement to be 25mm thick noggings (Fig 8a), or 12mm thick sheeting (Fig 8b)
17. A continuous stairway handrail where there is a rise of more than 1m.