



Association of Consultants
in Access Australia

Adaptable Housing in the ACT

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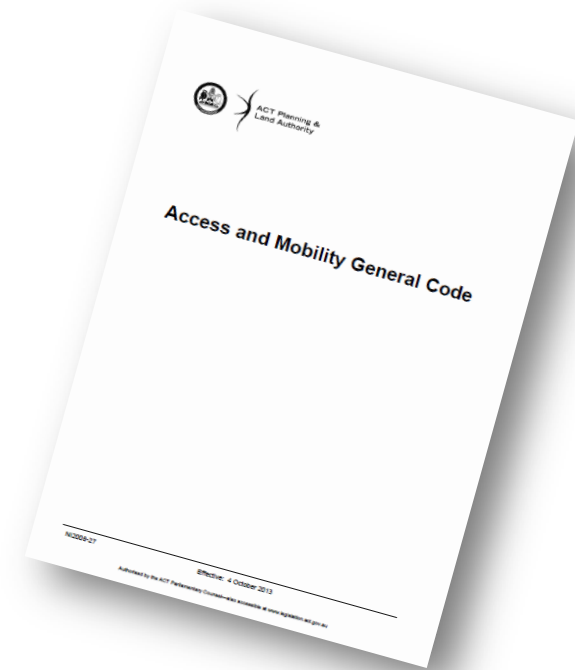
architecture | access | heritage

Background

- The ACT adopted Adaptable Housing in 2002.
- General requirement is to have 10% adaptable units in all multi-unit developments.

Access and Mobility General Code

- The ACT Planning Authority adopted this code as the basis of outlining the requirements of access for projects in the ACT. Current version effective 14/10/2013
- The code sets out rules and criteria for all new developments including adaptable housing.



Rules and Criteria for Adaptable Housing

The objectives are:

- To provide for adaptable dwellings that recognise the diverse needs of the community, particularly people with disabilities and older people
- To provide convenient access to, and within facilities that meet the needs of all users
- To ensure safe and efficient and convenient parking facilities for vehicles of all users.

Element 1: Built Form

Rule

Criteria

1.1 Building Design

R10

Where dwellings are required to be adaptable the dwellings must be designed in accordance with AS4299 Class C (Adaptable Housing).

R11

There is no applicable rule.

C10

This is a mandatory requirement. There is no applicable criterion.

C11

In multi-unit residential complexes, adaptable dwellings are required to be distributed in the development and be representative sample of sizes provided.

Element 2: Parking

Rule

2.1 Carparking

R12

Minimum of one accessible car parking space for each adaptable dwelling is designed in accordance with AS2890.6

Criteria

C12

Accessible car spaces are to be located in close proximity to the entrance of the adaptable units, and if a lift or stair platform lift is provided to serve adaptable units in multi-unit buildings.

Element 2: Parking

Rule

R13

There is no applicable rule.

Criteria

C13

Where there is a change in grade between the carparking and the adaptable unit, a lift or access ramp is to be provided from any basement or internal car parking for the adaptable units or visitors to the floor level of any adaptable dwelling. Access ramp to comply with *AS1428.1*

Element 3: Access to Common Use Areas

Rule

R14

Common use areas including shared corridors in multi unit developments to meet *AS1428.1*.

Criteria

C14

This is a mandatory requirement. There are no Criteria.

Element 4: Circulation

Rule

R15

Passenger lifts meet *AS1735.12 - Lifts, Escalators and Moving Walks – Facilities for Persons with Disabilities* where they are provided as part of a multi-unit housing development, which includes adaptable dwellings.

Criteria

C15

Where a multi-storey –multi unit development proposal does not incorporate a lift, the building is designed to be capable of having lift access for future use as adaptable units.

Applicable Standards

- A particular point to note in respect to the use of AS4299 that applies in the ACT is that 'the most up to date Australian Standards ... are applicable to relevant development proposals'.
- This means that even though AS4299 actually refers to AS1428.1 1992 the standard that is applicable is AS1428.1 2009.

Multi Unit Development in the ACT

- The Housing Industry Association estimates that around 24,000 units have been built in the ACT since 2002.
- This means there are at least 2,400 adaptable units in the ACT.
- What does this mean and how has it operated?

Observations

- Units are sold by real estate agents with no reference to adaptability. They are interested in a sale above anything else and possibly believe that the mention of adaptability will discourage purchasers.
- I am not aware of specific requests for an adaptable unit which has later been adapted.
- Developers react two ways. Some embrace it and work with it while others want to ignore it and use it under sufferance as the units are different to the standard and they try and squeeze them into poor locations or small units.
- Architects also vary and some are happy to design within the limits but others believe the bathrooms are not a modern standard and push the limit of adaptation.
- There should be detailed records retained on the building file that shows pre and post layouts so an owner can find this information in the future.
- Planners reviews of DA's and Certifiers' application of adaptable requirements varies. This is unfortunate.

Use of AS4299

What is adaptation at minimum cost? What is reasonable?

- The approach we take is that plumbing needs to have minimum change and none that requires change outside the unit. External doors should not require any change. Both of these involve other parties and approvals can be refused.
- Other internal changes are reasonably flexible.
- This approach involves several standards and some information is not defined (such as Australia Post requirements for letter boxes or a bedroom size).

How does one resolve this problem?

EMA Design Guide

- EMA has prepared a design guide.

The guide is downloadable at

http://www.emaa.com.au/uploads/4/6/3/2/46326229/2010_draft_information_sheet_for_adaptable_housing_v2.pdf

- It explains what AS4299 actually means for a designer and what is expected at the DA stage and the BA stage.
- Two examples:
 - Australia Post requirements for letterboxes; and
 - Bedroom size.

Letterboxes

- The requirement to meet Australia Post regulations lacks clarity for people with disabilities. Therefore the following is proposed.
- **Item 11** Access is required to letterboxes allocated to all adaptable units. This shall meet AS 1428.1 including:
 - Letterboxes located between 900mm and 1,100mm above paving.
 - Maximum gradient of ground surface beside letterboxes to be 1 in 40.
 - In large developments with large banks of letterboxes the letterbox heights can be extended beyond the above provisions but must meet AS 1428.2. Refer Figure 1.

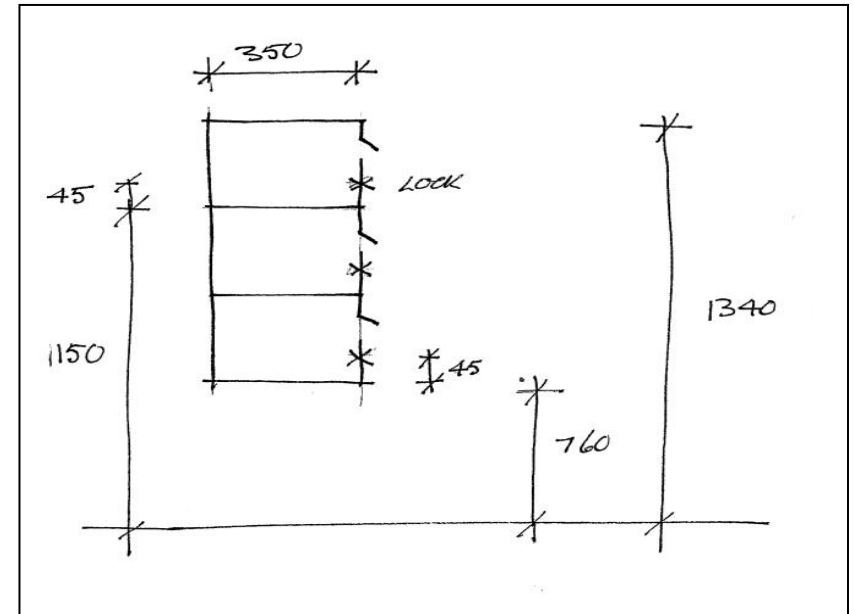
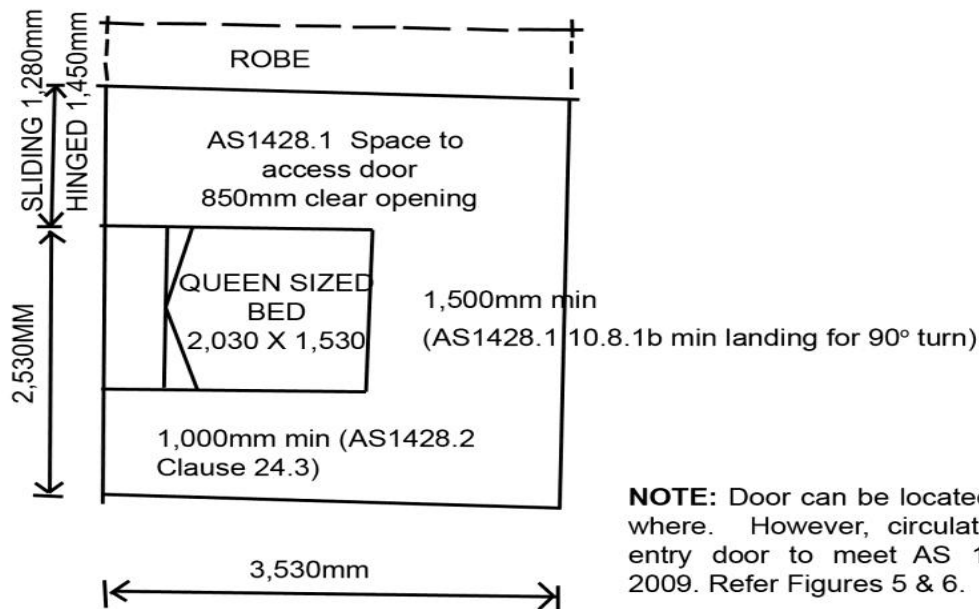


Figure 1: Reach Capability

AS 1428.1 Clause 11.1.2 (a) states 900mm – 1,100mm
AS 1428.2 Figure 20 & 21 indicate max height of reach
is 1,350mm and lowest 230mm if max 300mm deep.

Main Bedroom

Item 62 Minimum requirements are illustrated in Figure 7. Any bed head space needs to be added. Bed side tables to be moveable so as not to intrude into the space.



NOTE: Door can be located anywhere. However, circulation to entry door to meet AS 1428.1 2009. Refer Figures 5 & 6.

Figure 7 (a)

Main Bedroom (cont'd)

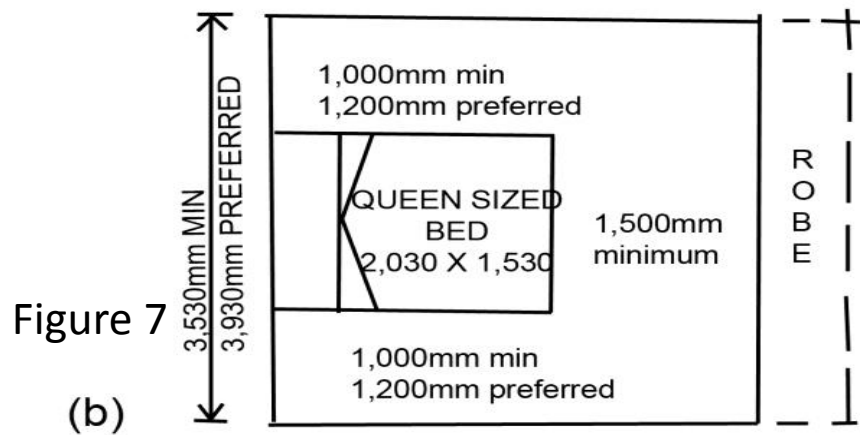
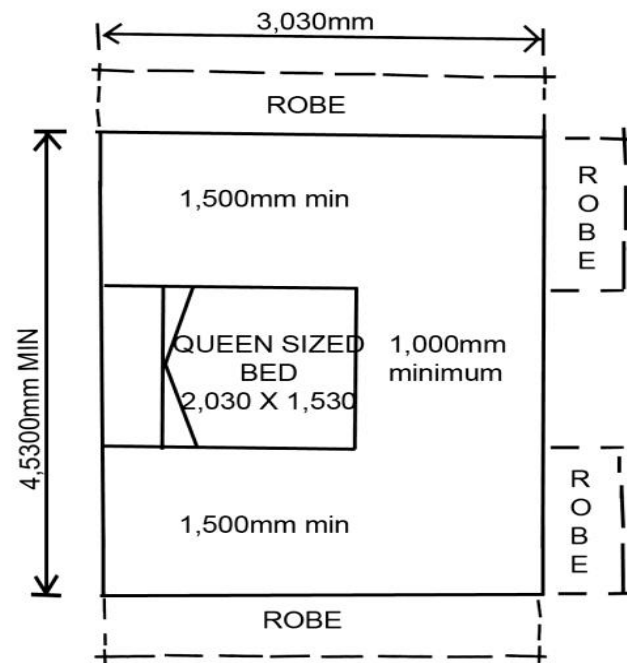


Figure 7 (c)

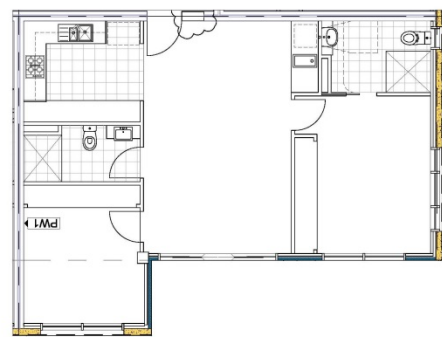


Some Examples

Minimal Change

ANSI/ICC A117.1-2009 (2003) ADA STANDARDS FOR ACCESSIBLE AND USABLE BUILDINGS
with required for adaptation are to comply with all relevant items addressed below and
related drawings

DESCRIPTION	REFERENCE
STAIRS	
ITEM 3: all stairs accessible path of travel from main entrance and vehicle parking to entry complying with AS 1481.1	ITEM 3(1)
ITEM 11: wheelchair to be on level landing and connected to accessible pathway	
ITEM 14: existing space is per AS 1481.1-2009	
ITEM 15: existing space is per AS 1481.1-2009	
ITEM 16: existing space is per AS 1481.1-2009	
ITEM 17: existing space is per AS 1481.1-2009	
ITEM 18: existing space is per AS 1481.1-2009	
ITEM 19: existing space is per AS 1481.1-2009	
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ITEM 100: existing space is per AS 1481.1-2009	

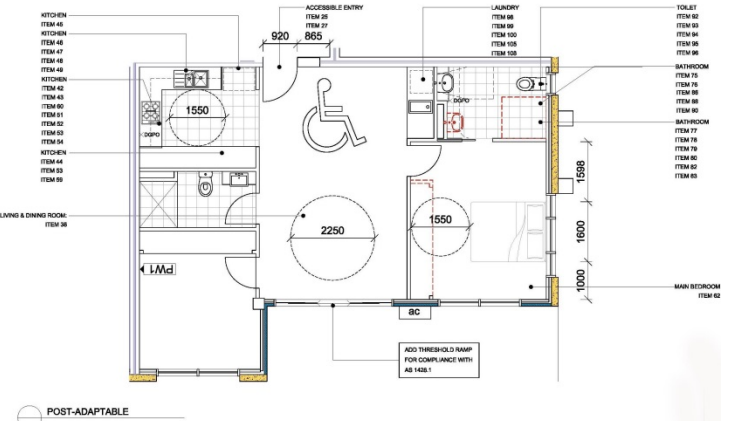


PRE-ADAPTABLE

LEGEND
--- TO BE REMOVED FOR ADAPTATION
○ CIRCULATION

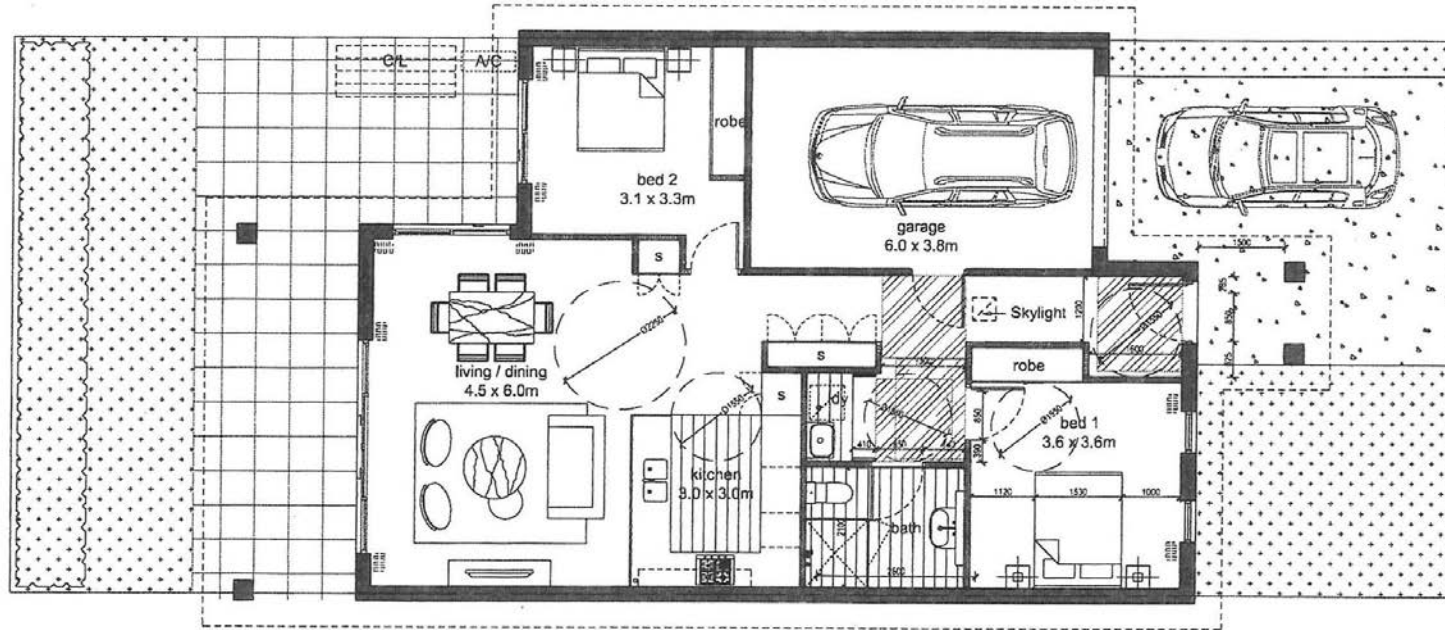
ADAPTABLE UNITS
THE DEVELOPER COMBINES A TOTAL OF 81 RESIDENTIAL DWELLINGS
10% OF THE TOTAL NUMBER OF DWELLINGS ARE REQUIRED TO BE DESIGNED TO ACCOMMODATE ADAPTABLE HOUSING CLASS C, WITH ASSOCIATED ACCESSIBLE PATH AND CAR PARKING AREAS
TOTAL NUMBER OF ADAPTABLE UNITS PROVIDED (10% OF 81) = 7 (1 rounded up)
THE FOLLOWING UNITS ARE DESIGNED TO MEET THESE REQUIREMENTS
L1 (UNITS 41, 42, 43)
L2 (UNITS 44, 45)
L3 (UNITS 46, 47)
L4 (UNITS 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81)

SEE ADAPTABLE UNITS DENOTES TO ADDITIONAL HOUSING CLASS C, WITH ASSOCIATED ACCESSIBLE PATH AND CAR PARKING AREAS



POST-ADAPTABLE

Minimal Change

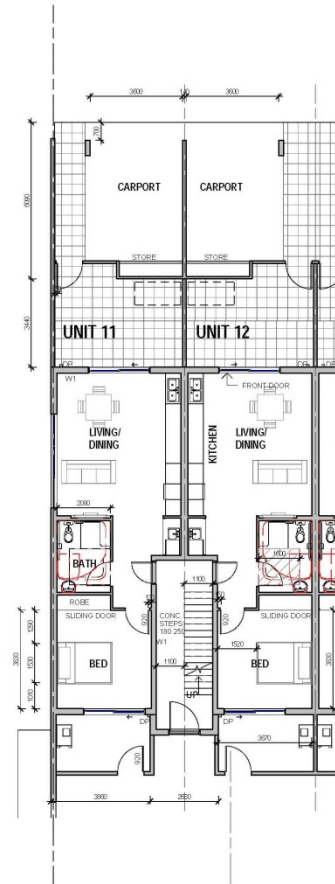


1

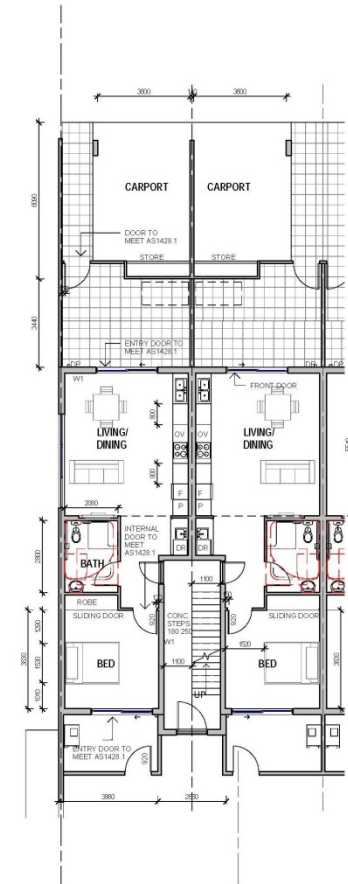
VILLA TYPE A

2 BEDROOM
GFA 102SQM (TYPICAL)
Storage Cupboard 1.8sqm

Minimal change

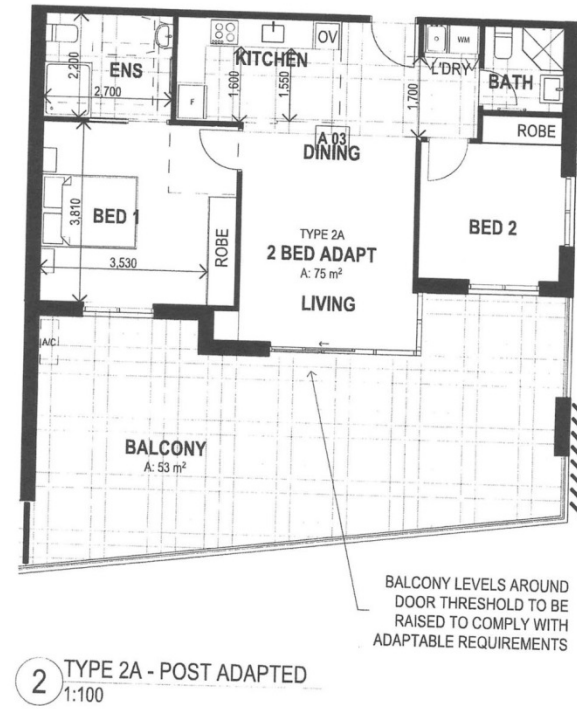


ADAPTABLE UNIT PRE ADAPTED
SCALE: 1:100

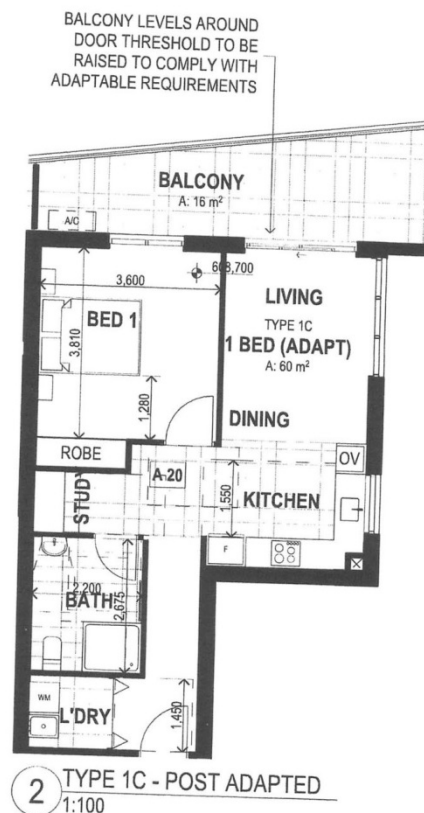


ADAPTABLE UNIT POST ADAPTED
SCALE: 1:100

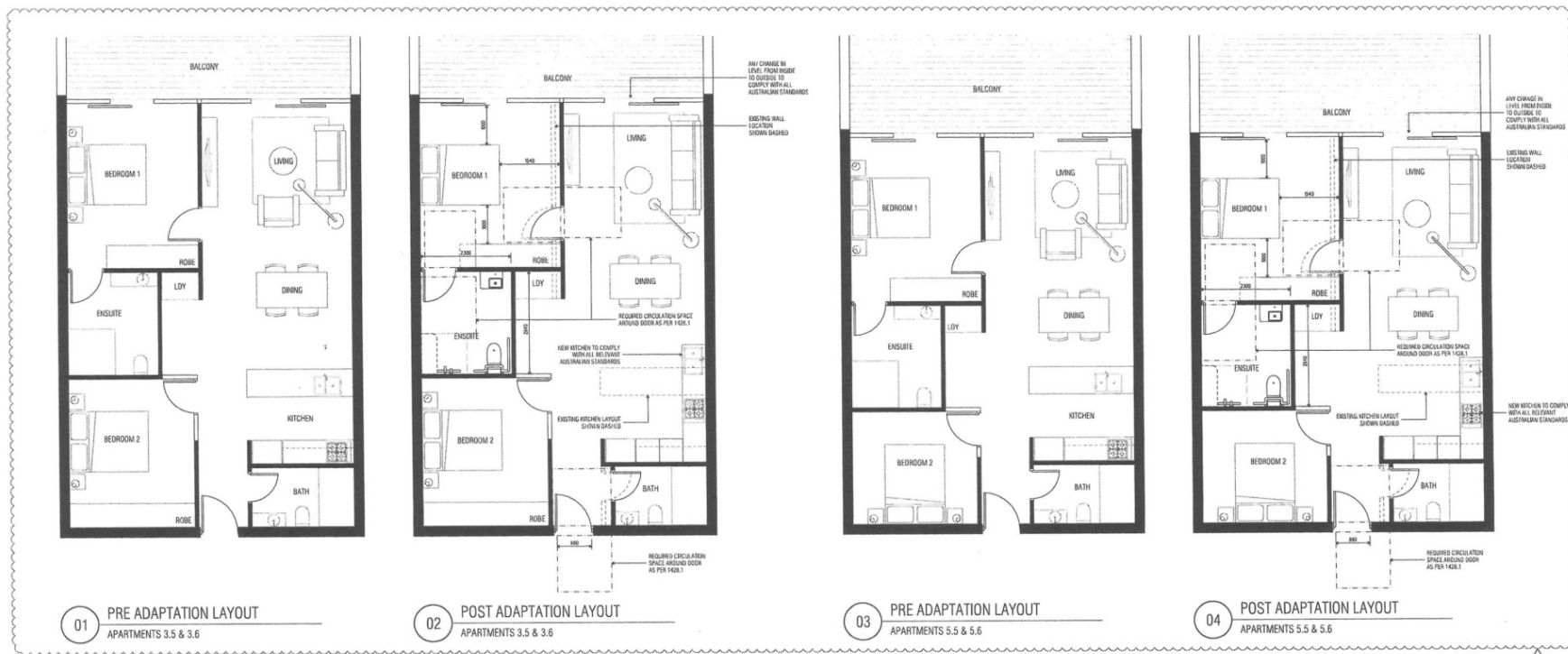
Minor Changes



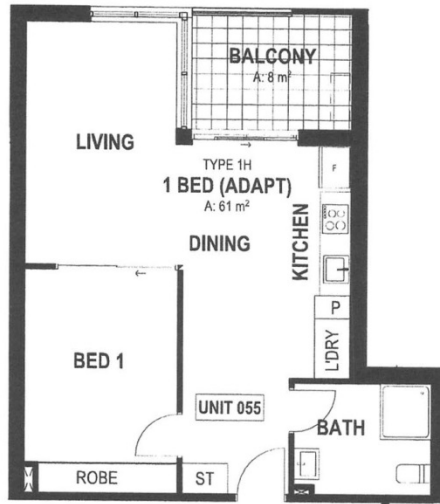
Minor Changes



Minor changes

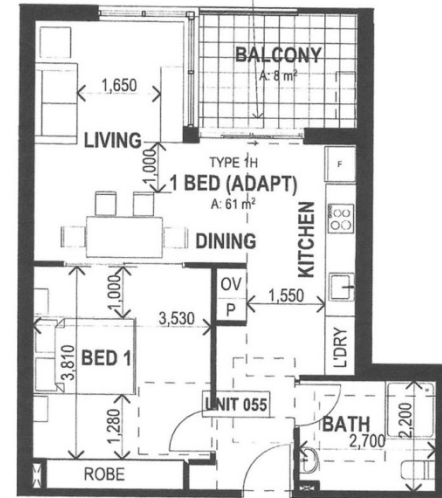


Minor changes



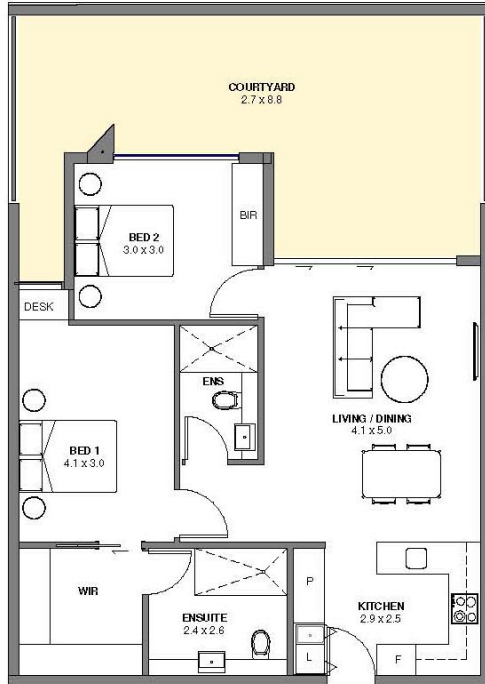
1 TYPE 1H - PRE ADAPTED
1:100

BALCONY LEVELS AROUND
DOOR THRESHOLD TO BE
RAISED TO COMPLY WITH
ADAPTABLE REQUIREMENTS

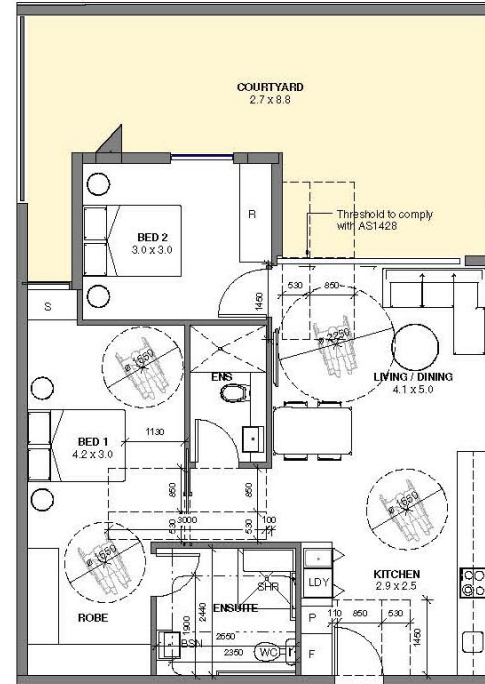


2 TYPE 1H - POST ADAPTED
1:100

Minor Changes

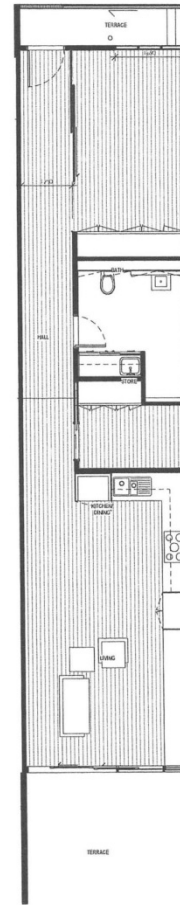


2 TYPE 11 - ADAPTABLE - PRE ADAPTED
SCALE: 1:50

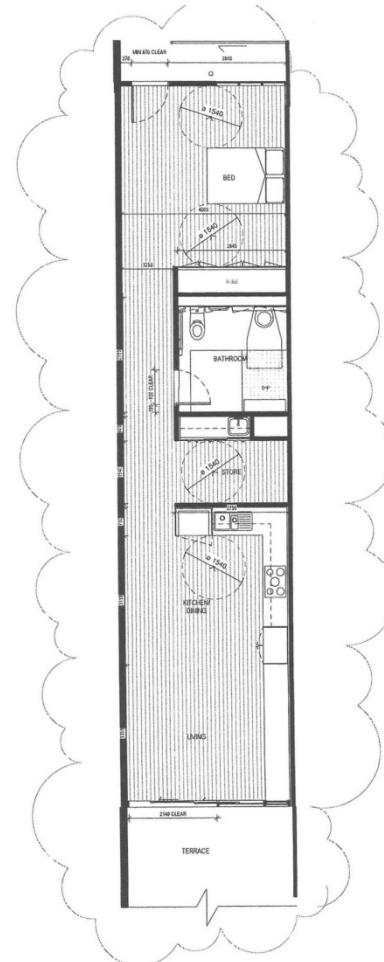


3 TYPE 11 - ADAPTABLE - POST ADAPTED
SCALE: 1:50 (79m² +37 m²) X 2

Borderline

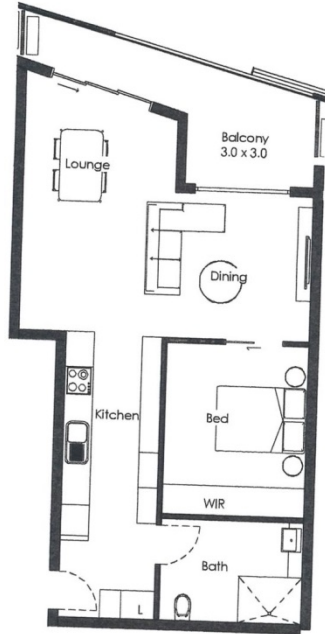


PRE-ADAPTED

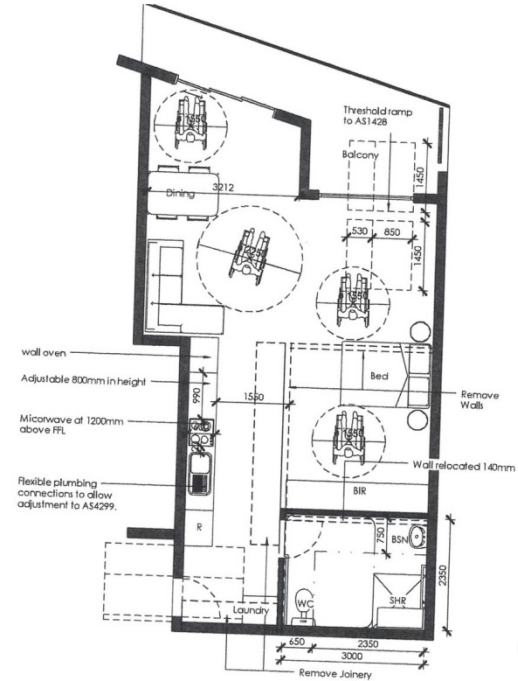


POST-ADAPTED

Borderline



Type 2 - 1 Bedroom Apartment - PRE ADAPTED
SCALE: 1 : 50



Type 2 - 1 Bedroom Apartment - POST ADAPTED
SCALE: 1 : 50

Not Acceptable



UNIT TYPE 3B (123m²) X 6
SCALE 1:100

What does this mean?

- The requirement to include adaptable housing has been accepted and no one has avoided doing it.
- It will prove useful in the long term as the need for accessible units increases.
- There is an urgent need to update AS4299.
- There is an ongoing need to train architects and designers on the requirements of adaptability.
- There is a need to train planners and certifiers to understand adaptability.
- It would be good to have better data on selling, uptake and actual implementation of adaptability in housing.
- Adaptability is being implemented more widely and there is a need to promote best practice.



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