INTRODUCTION

This information sheet is to assist the preparation of and review of Development Application (DA) submissions. It does not replace the need to comply with the detailed provisions of the Australian Standards (AS) and the National Construction Code (NCC) Building Code of Australia (BCA). In the preparation of Building Application (BA) documentation and the implementation in construction it is important that all the detailed provisions required and intended by the BCA and Australian Standards are met.

All the following sections A – L should be included in the DA drawings. “Items for noting” can be on the DA drawings or in separate correspondence. The item number refers to the item in AS 4299 Appendix A.

AS 4299 generally refers to compliance with AS 1428.1 except for the main entry door (refer E) and door to main bedroom (refer I) which require compliance with AS 1428.2. Car parking refers to AS 2890 (refer D).

AS 4299 Appendix A Adaptable House Class C is the minimum level required (i.e. all essential features incorporated). Refer to Adaptable House Class B for first priority desirable features and Adaptable House Class A for all desirable features. An essential requirement of AS4299 is adaptation at minimal cost.

Note: There are areas noted in this draft information sheet which are the interpretation of the author.

In the ACT the Access and Mobility General Code requires that “the most up to date Australian Standards applied by the Code are applicable to relevant development Proposals”) Appendix A.

A. DRAWINGS

With the introduction of AS1428.1 2009 this has replaced the previous AS1428.1 and AS1428.2 and has been used in the application of AS4299.

Item 1 Pre and post adaptation drawings are required. The post adaptation needs to meet all the requirements in this information sheet.

If there is effectively no change between the two scenarios (pre and post adaptation) only one set of drawings can be submitted for review.

Note: Other details may be requested by the planning authority.

Note: Adaptable housing should be possible at relatively little extra cost. While this is not defined it is generally interpreted as:

- No alteration of services outside the unit/dwelling.
- No or minimal alteration to plumbing.
- No or minimal alteration to floors of wet areas.
- No or minimal alteration to electrical services.
- Minimum alteration of walls, doors.
B. SITING

Item 3

Access from the street frontage and any other pedestrian network to all adaptable units to meet AS 1428.1.

Access to all common area and facilities to meet BCA and AS 1428.1. Access for disabled and able bodied should use same or similar route.

Access from car parking (designated to the adaptable units or disabled people) to adaptable units to meet AS 1428.1.

Access from Adaptable Units to common area and facilities to meet AS 1428.1.

The key aspects of AS 1428.1 to consider are:

- Path of travel to be paved and a minimum 1,000mm wide and include no steps.
- Maximum gradient of paths or path of travel to be 1 in 20.
- Maximum cross fall on paths or path of travel to be 1 in 40.
- Maximum fall on landings to be 1 in 40.
- Where gradient is steeper than 1 in 20 it is a ramp and requires handrails both sides, tactile indicators, kerbs etc to AS 1428.1.

Note: ACT Planning & Land Authority Access & Mobility General Code Effective from 04/10/2013, requires compliance with the latest version of AS4299, AS1428.1, AS2890 and other standards.

In multi-unit developments adaptable units should be located throughout the building in a variety of locations, levels and outlooks and cover a range of unit designs.

ACT Planning & Land Authority Access & Mobility General Code specifies general access requirements to all multi-unit housing regardless of whether these are adaptable units or not.

C. 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 sketch below.
D. PARKING

Item 14  Garages & car spaces to be a minimum 5.4m(L) x 4.8m(W) x 2.5m(H) for a single space and 5.4m(L) x 7.2m(W) x 2.5m(H) for a double space.

The minimum height of a door or circulation passage is 2200mm.

There also needs a clear zone 2.4x2.4m at the end of the car parking spot.

Figure 2*: Example of an Angle Parking Space with shared Areas on one side only.
AS2890.6 Figure 2.2
Figure 3*: Example of Two Parking Spaces with a common shared area. AS2890.6 Figure 2.3

Figure 4*: Headroom required above car spaces for people with disabilities. AS2890.6 Figure 2.7

Note: * The above requirements are as per AS2890.6 2009.
ACT Planning often accept AS4299 requirement of 3,800mm width for small units but this is to be considered on a case-by-case basis.

E. ACCESSIBLE ENTRY

Items 20, 24-25 Entry to meet AS 1428.2 i.e. 850mm clear opening, clearances as per Figures 5 and 6.

Item 22 Maximum grade of circulation area from Item 20 to be 1 in 40.

Item 23 Maximum 3mm vertical step or a 5mm bevelled step at entry.

Note: Sliding door will need to be about 1,000mm wide to achieve this.

Threshold steps to AS1428.1 are possible but not preferred.

![Figure 5: Hinged Entry Door Circulation](image-url)
F. INTERIOR GENERAL

Item 32  All internal doors minimum clear opening of 850mm.  (This to meet AS1428.1 2009)

Item 33  Minimum internal corridor 1,000mm wide.

Item 34  Circulation space to all internal doors from the internal corridor side to AS 1428.1 2009 Figure 31 (hinged doors) or Figure 32 (sliding doors). Refer Figures 5 and 6.

Note: This is an EM interpretation of AS 4299 Clause 4.3.7 and is open for discussion whether it should also apply to the inside of rooms as well. EM also suggests that any non-adaptable/accessible bathrooms need not meet this requirement, as there is one bathroom that is adaptable/accessible. However, it is desirable that the circulation area up the other bedroom meet AS1428.1.

Note: The circulation to the Main Bedroom door is to comply with AS 1428.1 2009 (refer Section I and Figure 7).

Corridors longer than 2m require a turnaround space of 2070mm x 1540mm (BCA and AS1428.1).
G. LIVING ROOM & DINING ROOM

Item 36 Minimum diameter 2,250mm circulation space.

H. KITCHEN

Item 42 Minimum 1,550mm in front of benches, cupboards and appliances.

Item 43 Refer Figures 5 and 6 for access into room (door and circulation).

Item 44 At least one 800mm long work surface.

Item 45 A work surface beside refrigerator on opening side.

Note: There is no minimum space specified. EM suggest 400mm is reasonable.

Item 53 A 800mm long work surface adjacent cook top and at the same level.

Item 54 A 800mm long work surface beside oven which is adjustable.

Note: An oven and cook top can be combined but it is not preferred. It is best to have oven shelves at height of bench. Combination of work surfaces in Items 51 – 54 is permitted. Space for microwave at a reachable height with bench space to the right hand side should also be provided.

I. 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.
ADAPTABLE HOUSE CLASS C

All Essential Features Incorporated

Eric Martin and Associates

Figure 7: Main Bedroom Layout

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

Item 75  Location of fittings and space to meet AS 1428.1 Clause 15.

Item 77  Shower, no hob and size to AS 1428.1 Figures 47 – 49 (refer to Figure 8 and 9 for some details).

Item 88  Basin located to suit AS 1428.1 Figure 45.

K. TOILET

Items 92 – 94  Location of fittings and space to meet AS 1428.1 Figures 38 – 43.

Location of pan to side wall set out to be 450 – 460mm to centreline and any waste through floor to permit later adaptation for an accessible pan.

NOTE: All plumbing wastes to be located to suit accessible layout which can include additional wastes in the preadapted form.

L. LAUNDRY

Item 98  Refer Figures 5 and 6 for access into room (door and circulation).

Item 99  A minimum 1,550mm in front of tub and appliances.

Item 100  Space for a front loading washing machine.

Note: It is preferable that the washing machine is not in a corner especially the openable side.

Taps at the side of washing machines and tubs is preferred.

Provision to permit raising the washing machine off the floor is preferred.

Item 102  An accessible path of travel complying with AS 1428.1 to clothes line (if provided) including no steps, door width, circulation space etc. Refer information under Item 3.

ITEMS FOR NOTING

Most DA submissions do not document all the details required for BA. In the DA documentation the following items can be noted (on drawings or by separate letter) that they shall be included in the BA documentation and shall be constructed to meet BCA and AS 4299 requirements.

Item 23  Threshold detail to indicate low level. AS 1428.1 requires a maximum 3mm step but does permit a threshold ramp of 1 in 8 over a maximum 280mm.

Item 27  Lever door handles between 900mm and 1,000mm height.

Item 38  Telephone adjacent GPO in living room. Power points to be between 600mm and 1,100mm above floor level.

Item 41  Living room to have a minimum 300 lux illumination.
Item 44 An adjustable kitchen bench can be added later.

Item 46 An adjustable kitchen sink can be installed initially or added later. Plumbing to permit this provided in pre-adapted state.

Item 47 Kitchen sink to be a maximum 150mm deep.

Note: EM interpretation is that if the kitchen sink is to be installed later then this requirement can also be installed later.

Item 48 Sink taps to be lever handles and/or mixer.

Note: EM interpretation is that if the kitchen sink is to be installed later then this requirement can also be installed later.

Item 49 Sink taps to be reachable (maximum 300mm back)

Note: EM interpretation is that if the kitchen sink is to be installed later then this requirement can also be installed later.

Item 51 Cook tops to have front controls or side controls (maximum 300mm back) with raised cross bars.

Item 52 Cook tops to include isolating switch.

Item 54 Work surface beside oven is adjustable or can be added later.

Item 59 One power point within 300mm of front of bench and maximum 1,100mm high.

Item 60 Power point switch for refrigerator to be between 600mm and 1,100mm above floor level and maximum 300mm back from front of refrigerator.

Item 61 Kitchen floor to be slip resistant to AS 4586 HB 197. A certificate of test and compliance will be required after construction.

Item 75 Support for future grab rails to be built in at time of construction. Refer AS 4299 Figures 4.5 and 4.6 (Figures 10 and 11).

Item 76 Bathroom floor slip resistance to AS 4586 HB 197. A certificate of test and compliance will be required after construction.

Item 78 Shower (and bathroom) to be waterproofed to AS 3740 (2004) i.e. 1,500mm from shower rose. A certificate of compliance will be required after construction.

Item 79 Recessed soap holder.

Note: EM suggests non-recessed as per AS 1428.1 is acceptable but recessed is preferred.
Figure 8: AS 1428.1 2009 Figures 47a & 47b
Item 80  Shower taps to AS 1428.1 Figure 48.

Item 82  Shower rose to AS 1428.1 Figure 48.

Item 83  Grab rails in shower (refer Figure 9). Add in support for future seat and grab rails at time of construction (i.e. pre-adapted state) (refer Figure 10).

Item 86  Lever taps.

Item 90  Power point beside mirror at 900mm – 1,100mm above floor level.

Item 95  Support for future grab rails to be built in at time of construction (i.e. pre-adapted state) (refer Figure 11).

Item 96  Toilet floor to be slip resistant to AS 4568 HB 197. A certificate of test and compliance will be required after construction.

Item 105  Double power point in laundry.

Item 108  Laundry floor to be slip resistant to AS 4586 HB 197. A certificate of test and compliance will be required after construction.

Item 110  Door hardware to be lever handles at 900mm – 1,100mm above floor level.
Figure 4.6 REINFORCED AREAS FOR SUBSEQUENT INSTALLATION OF GRABRAILS IN SHOWER COMPARTMENTS

Figure 10: AS 4299 Figure 4.6
Annotated by Eric Martin AM February 2020
Figure 11: AS 4299 Figure 4.5

DIMENSIONS IN MILLIMETRES

FIGURE 4.5 REINFORCED AREAS FOR SUBSEQUENT INSTALLATION OF GRABRAILS IN TOILETS