

PROPOSAL FOR CHANGE NATIONAL CONSTRUCTION CODE SERIES

Accessibility in housing

"To provide for accessibility in all new housing."







PROPOSAL FOR CHANGE

NATIONAL CONSTRUCTION CODE SERIES

SUBJECT Provision for accessibility in housing

Proposer's name	Margaret Ward PSM B Arch, PhD	Michael Fox AM, B Arch, MTCP, FAIA, FAPI
Position	Convenor	Chair
	Australian Network for Universal Housing Design	Rights & Inclusion Australia ABN 60 149 775 100
Proposer's Organisation	Australian Network for Universal Housing Design	Rights and Inclusion Australia
Address	PO Box 666	PO Box 88
Suburb	STRAWBERRY HILLS	PACIFIC PALMS
State	NSW	NSW
Postcode	2012	2428
Phone number	07 3382 1453 (work)	02 6552 9333 (work)
Mobile number	0409 898 498	0417 402 030
Email address	anuhd@anuhd.org	reply@riaustralia.org
Web address	www.anuhd.org	www.riaustralia.org







TABLE OF CONTENTS

The P	roposal		7
Conte	ext		9
The C	urrent Proble	em1	.1
The C	bjective		.4
The Ir	mpacts		.5
Consu	ultation		.7
Appe	ndices	2	1
A	Appendix 1.	Proposed Deemed-to-Satisfy provisions (draft)	1
A	Appendix 2.	National Dialogue on Universal Housing Design2	:5
A	Appendix 3.	Initiatives to stimulate the supply of accessible housing 2	:6
A	Appendix 4.	Summary of responses by State and Territory Housing Ministers 2	.7
A	Appendix 5.	National Stakeholders for the Standards Australia proposal 3	1
A	Appendix 6.	Organisations and individuals that support regulation 3	4
Refer	ences	4	1
FIGUI	RES		
Figure	e 1. Comparis	son of LHD outputs with anticipated targets* 1	.1
Figure	e 2. Circulatio	on space requirements for shower recess 2	:3
Figure	e 3. Toilet – l	ocation of sheeting2	4
Figure	<i>e 4.</i> Bath – Io	cation of sheeting2	4
Fiaure	e 5. Shower r	ecess – location of sheeting	4







THE PROPOSAL

What is the proposal?

To provide for accessibility in all new housing.

All new housing construction will make provision for:

- 1. A safe continuous and step free path of travel from the street entrance and parking area to a dwelling entrance that is level;
- 2. At least one level (step-free) entrance into the dwelling;
- 3. Internal doors and corridors that facilitate comfortable and unimpeded movement between spaces;
- 4. A toilet on the ground (or entry) level that provides easy access;
- 5. A bathroom that contains a hobless (step-free) shower recess;
- 6. Reinforced walls around the toilet, shower and bath to support the safe installation of grabrails at a later date [43].

(See **Appendix 1** for recommended Deemed-to-Satisfy provisions.)

The provisions are to be applicable to the following classes of buildings as specified in the NCC:

Class 1 – one or more buildings, which in association constitute:

Class 1a – a single dwelling being:

- i. a detached house; or
- ii. one of a group of two or more attached dwellings, each being a building, separated by a fire-resisting wall, including a row house, terrace house, townhouse or villa unit; or

Class 1b:

- a boarding house, guest house, hostel or the like; with a total area of all floors not exceeding 300 m2 measured over the enclosing walls of the Class 1b building; and in which not more than 12 persons would ordinarily be resident, which is not located above or below another dwelling or another Class of building other than a private garage;
- ii. 4 or more single dwellings located on one allotment and used for short-term holiday accommodation.

Class 2 – a building containing two or more sole-occupancy units, each being a separate dwelling (some features are already provided for within AS1428.1 in the NCC).

Class 3 - a residential building, other than a building of Class 1 or 2, which is a common place of long term or transient living for a number of unrelated persons, including –

- a. a boarding house, guest house, hostel, lodging house or backpackers' accommodation; or
- b. a residential part of a hotel or motel; or







- c. a residential part of a school; or
- d. accommodation for the aged, children or people with disabilities; or
- e. a residential part of a health-care building which accommodates members of staff; or
- f. a residential part of a detention centre.

Class 4 - a dwelling in a building that is a Class 5, 6, 7, 8 or 9 if it is the only dwelling in the building.

The design levels described in **Appendix 1** should only be applied to the parts of the building classes not covered by the *Disability (Access to Premises – Buildings) Standards.*

.







CONTEXT

In 2009, the National Dialogue on Universal Housing Design (National Dialogue) agreed to a national guideline and a strategic plan with the aspirational goal that "all new homes will be of an agreed Universal Housing Design standard by 2020 with interim targets to be set within that 10-year period" [1]. This agreement was endorsed by the

Council of Australian Governments (COAG) in their National Disability Strategy 2010-2020, as an activity for Outcome 1, Policy Direction 3; Improved provision of accessible and well-designed housing with choice for people with disability about where they live [2]:

"An aspirational target that all new homes will be of agreed universal design standards by 2020."

The Australian Government is working with representatives from all levels of

government, key stakeholders from the disability, ageing and community support sectors and the residential building and property industry on the National Dialogue on Universal Design to ensure that housing is designed and developed to be more accessible and adaptable. An aspirational target that all new homes will be of agreed universal design standards by 2020 has been set, with interim targets and earlier completion dates to be determined.

The National Disability Strategy explains why this commitment was made:

Finding suitable accommodation is important to all Australians. It is a prerequisite for a happy and stable life. There is evidence that people with disability experience substantial barriers in finding a place to live, especially in the private market. Barriers are often presented by designs which do not allow the building structure of the home to change without significant expense, to meet the needs of a person who is ageing or who has a disability. The greater the take up of universal design features, the more open the community is to people with disability, including those with age-related disability. This provides greater choice about where to live, but also more social opportunities for visiting friends and family.

See **Appendix 2** for the members of the National Dialogue and the targets which they agreed to meet.

The National Dialogue was established in response to Australia's ratification of the Convention on the Rights of People with Disabilities [3], which requires the Australian Government to promote the right for people with disability to:

• access all aspects of the physical and social environment on an equal basis with others (Article 2); and







• to choose their place of residence and where and with whom they live on an equal basis with others (Article 19).

It also stipulates that the design of . . . environments, . . . [should] be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Article 4).

In July 2010, the Livable Housing Design Guidelines were launched, and Dialogue members committed to the Strategic Plan. The Australian Government pledged \$1 million over four years to support the implementation of the initiatives set out in the Strategic Plan. In June 2011, National Dialogue members agreed to establish a new not-for profit organisation, Livable Housing Australia, to drive the strategic directions set-down by the National Dialogue and to champion the Livable Housing Design Guidelines [4].

"The design of . . .
environments . . .
[should] be usable by all
people, to the greatest
extent possible, without
the need for adaptation
or specialized design"

Government authorities referred to the Livable Housing Design guidelines and strategic plan as the key strategy to improve access within residential environments, including:

- Productivity Commission's report on Care for Older Australians [5]
- Productivity Commission's report on Disability Care and Support (National Disability Insurance Scheme) [6]
- COAG's National Disability Strategy 2010-2020 [2]
- State of Australian Cities 2012 report [7];
- Queensland Government's action plan on disability
 [8];
- South Australian 2012 strategy for housing [9]; and
- Brisbane City Council's Access and Inclusion Plan 2012-2017 [10]

Livable Housing Australia's strategy has been to persuade industry and government to adopt the Guidelines voluntarily, and provide industry with training and education.

By December 2014, . . . no interim targets had been met thus far and less than 5% of the 2020 target will be reached with the current voluntary approach."

By December 2014, Livable Housing Australia reported outcomes which indicate that no interim targets had been met thus far and less than 5% of the 2020 target will be reached with the current voluntary approach [11].







THE CURRENT PROBLEM

What problem is the proposal designed to solve?

The proposal aims to solve two problems:

- a. The inability of the housing industry to respond to the National Dialogue agreement in 2010 and the subsequent COAG commitment within the National Disability Strategy; and
- b. Inconsistency across Australia in what is considered to be accessibility in housing.

What evidence exists to show there is a problem?

 a. The inability of the housing industry to respond to the National Dialogue agreement in 2010 and the subsequent COAG commitment within the National Disability Strategy

If the National Dialogue targets were met within the conservative estimate of 140,000 dwelling approvals per year [12], approximately 210,000 projects (built or designed) would be in the housing market by the mid-point of 2015, and 770,000 projects by 2020.

To December 2014, Livable Housing Australia estimated that approximately 9300 projects were planned or built to Livable Housing Australia silver level or above. A generous estimation is that the current voluntary approach will achieve less than 5% of the National Dialogue's 2020 target. See *Figure 1* below for a comparison of the National Dialogue targets and the Livable Housing Australia reported outputs.

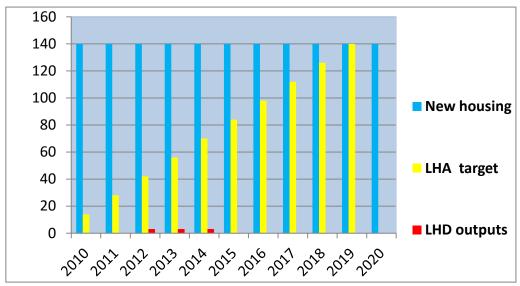


Figure 1. Comparison of LHD outputs with anticipated targets*

* Livable Housing Australia has been unable to provide any data since December 2014.







This minimal response indicates market failure and brings the voluntary approach into question. The task of a responsible government is to decide when to rely on market forces and when to intervene [13]. This proposal argues it is time to intervene.

"This minimal response indicates market failure and brings the voluntary approach into question."

The Productivity Commission's 2014 report into the Australian Building Codes Board [14], identified there

was a place for regulation particularly when it came to access for people with disability:

Governments sometimes intervene in the market for the social purpose of ensuring certain minimum standards of accommodation (including access to buildings) for all. It is most unlikely that certain building qualities, such as access for people with disabilities, would be delivered widely in the absence of government intervention. [p. xxiii]

The report also acknowledges that home-buyers were often inexperienced and ill-informed about the building process, and they could not be relied on to consider

their future access needs or to demand access features for "the common good" including visitors or future residents [14].

The Australian housing industry, particularly volume builders, are not structured to respond to individual buyers' requests and have been known to act intentionally to avoid them, particularly if they require changes to their cost-effective and time efficient volume building practices [15]. Research has shown that all the features are within common building practice, and some access features are

"The task of a responsible government is to decide when to rely on market forces and when to intervene.

This proposal argues it is time to intervene."

provided inconsistently for a variety of reasons to variable standards. Rarely do they provide a reliable accessible path of travel [44].

b. Inconsistency and unreliability in what is considered to be accessibility in housing.

The Australian Government has received advice since 1978 that regulation was necessary for the reliable provision of accessibility in housing. The South Australian Government in 1978 [16], the Queensland Government in 2005 [17], the Disability Investment Group in 2009 [18], the Victorian Government in 2010 [19] and the Australian Capital Territory (ACT) Government in 2012 have all identified the need for mandated accessibility in all new housing. In the absence of any national action, a plethora of unrelated initiatives to stimulate the supply of accessible housing (see







Appendix 3) has resulted in a lack of response by individual providers, and, when there is a response, there is inconsistency and unreliability in what is provided.

The National Dialogue's Livable Housing Design guideline is the most recent advice. The State Housing programs, currently constituting less than 5% of Australia's housing stock [45], are also unable to commit to the universal use of Livable Housing

Design guidelines. A survey of Housing Ministers in 2014 revealed that no two State Housing Authorities had the same approach and none had reached the 2013 targets (see **Appendix 4**).

In February 2016, ANUHD and RIA attempted to address this problem by proposing to Standards Australia to review AS4299-1995 to align with the National Disability Strategy and its commitment to an agreed standard in all new housing by 2020. This proposal offered the key stakeholders a consensus and consultation process with the rigour required for regulation. This initiative was supported by the national

"Now that the housing industry has been unable to respond voluntarily to meet the 2020 target or to work collaboratively towards regulation, ANUHD and RIA turn to government to progress this proposal for change."

community, human rights and professional peak organisations; however, it was rejected or ignored by the peak housing organisations (See **Appendix 5**).

Now that the housing industry has been unable to respond voluntarily to meet the agreed 2020 target or to work collaboratively towards regulation, ANUHD and RIA turn to government to progress this proposal for change.





THE OBJECTIVE

How will the proposal solve the two problems?

The adoption of the proposal in the NCC 2019 will ensure:

- a) reliable national standard for accessibility in newly constructed housing; and
- b) Australia's commitments to the United Nations Convention on the Rights of Persons with Disabilities
 [3] through the National Dialogue's [1] and COAG's
 [2] 2020 targets are met.

What alternatives to the proposal (regulatory and non-regulatory) have been considered and why are they not recommended?

"The adoption of the proposal in the NCC 2019 will ensure Australia's commitments to the United Nations Convention on the Rights of Persons with Disabilities are met."

The following alternatives have been considered:

- A national voluntary approach has been proposed by the National Dialogue for Universal Housing Design. To date this approach has failed to meet the National Dialogue's 2013 and 2015 targets and is anticipated to meet less than 5% of the 2020 target [11];
- Various State and Territories have attempted to raise awareness within the housing industry and among potential buyers (See Appendix 3). These have not made a discernible increase to the accessibility of housing; and
- In the absence of any national regulation, various State and Territory Governments (including Victoria, ACT and Queensland) have amended, or are currently considering amending their building legislation to include provisions for accessibility in housing. This is counter to the intent of the National Construction Code to provide a national code and reduce regulatory confusion and burden for the construction industry.





THE IMPACTS

Who will be affected by the proposal?

The proposal will affect:

- Government programs for health, welfare, disability and aged care;
- Individual households; and
- The housing industry, including designers, developers and builders.

In what way and to what extent will they be affected by the proposal?

Government programs for health, home and community care, disability and aged care

The proposal will increase the supply of accessible housing over time and this in turn will:

- Ensure COAG meets the commitment it has made within the National Disability Strategy that all new housing will be to an agreed access standard by 2020;
- Increase the cost-effectiveness of the National Disability Insurance Scheme and the Aged Care Reforms [5, 6] by decreasing the demand for specialised residential care and the demand for home modification assistance [24, 25];
- Optimise the anticipated involvement of informal community and family support by allowing people to remain in their homes and communities [22];
- Decrease the number of avoidable hospital stays by allowing people to manage longer at home, and getting them home sooner after hospitalisation [23]; and
- Provide safer and more efficient work environments of home care workers [46].

Individual households

Currently there is a 60% probability that newly-built single-family detached housing will have at least one disabled resident during its expected lifetime. If visitors are taken into account, the figure rises to 91% [20, 21]¹. With the onset of age, disability or illness, individual households will have less need to move, to pay to modify their housing, (the cost of modifying is estimated at

"There is a 60% probability that newly-built single-family detached housing will have at least one disabled resident during its expected lifetime. If visitors are taken into account, the figure rises to 91%."

¹ This US study is referenced in the absence of equivalent research in Australia. The prevalence of disability and the patterns of housing transitions in Australia are similar enough to consider these findings to be informative.







nineteen times more than having features included at design-stage [19 p. 75]) or to require personal care. Individual households can remain included and contributing in their chosen communities.

The housing industry

The proposal will provide the housing industry national consistency regarding accessibility in housing instead of the numerous guidelines, standards and legislated requirements that currently exist across Australia.

There is a one-off cost for individual designers, builders and suppliers in adjusting to the requirements; however, as all providers are affected and the requirements are mainstream and consistent throughout the industry, these costs will be minimised through competition [48].

As noted earlier, all the features are within current building practice. The Victorian Regulatory Impact Statement [19] advises that the features are easily absorbed within the current footprints of most accepted housing designs [p. 13].

"There is a one-off cost for individual designers, builders and suppliers in adjusting to the requirements; however, as all providers are affected and the requirements are mainstream and consistent throughout the industry, these costs will be minimised through competition."







CONSULTATION

Who has been consulted and what are their views?

Since 2012, ANUHD and RIA together and separately have consulted with stakeholders as follows:

a) National forum (27 November 2012 Canberra)

RIA hosted a public forum in Canberra which recommended the following:

- As Australia has an ageing population and has ratified the Convention on the Rights of Persons with Disabilities (CRPD), a stronger national strategy for more accessible and liveable housing is urgently required;
- Whilst voluntary codes may assist governments and some developers, the general building industry requires a mandatory, regulatory process to ensure implementation;
- The recommended mandatory, regulatory process should combine available existing resources including Livable Housing Australia Guidelines, relevant Australian Standards and the Building Code of Australia; and
- A mandatory process should also regulate to ensure visitability and accessibility of the surrounding built environments.

b) National forum (7 November 2013, Sydney):

ANUHD with RIA, Stockland and Livable Housing Australia hosted a forum in the Sydney offices of Stockland on 7 November 2013 and invited the National Dialogue members, industry, government and consumer representatives to answer the question: "How to reach the 2020 target of Livable Housing Design Australia?"

The Forum participants recommended:

- uniform, simplified standards for all mainstream housing to provide a "level playing field" for the housing industry with those standards to be incorporated into the Building Code of Australia;
- incentives and education for builders and buyers; and
- a system that simplified the accessibility requirements in housing.

c) National Forum (9 May 2014, Brisbane):

ANUHD with RIA and ten other organisations hosted a follow-up forum in Brisbane. The forum participants identified that action towards the 2020 target needed to be multi-layered. In the absence of evidence of significant progress towards the 2020 target, the workshop participants concluded that the responsibility for taking the lead towards more inclusive residential communities rested with governments rather than with housing industry. They endorsed the three-pronged approach







identified on 7 November 2013; and identified it was time to lobby government for regulation, while supporting the ongoing work of Livable Housing Australia in preparing the housing industry. They supported:

- continued advocacy for access requirements for new housing in the NCC/BCA;
- calling the National Dialogue to account for the failure to meet the targets;
 and
- ongoing awareness-raising of all stakeholders (through activities comparable to those of Livable Housing Australia).

d) Survey of the Members of the National Dialogue on Universal Housing Design (2014)

ANUHD, supported by RIA, wrote to all National Dialogue members (plus the federated State-based Master Builders Associations) on 6 March 2014. The letter outlined the Livable Housing Australia-reported achievements to date. It then sought responses to the findings of the 7 November 2013 workshop.

e) Survey of State and Territory Housing Ministers (2014)

ANUHD wrote to all State and Territory Housing Ministers requesting they report on their achievements in the built form as of October 2014. The adoption of housing accessibility features has been variable across Australia. While the percentage of public housing with some level of accessibility has increased, it is not of a reliable standard and the agreed targets have not been met (see **Appendix 4**).

f) Access Standards & Housing Forum (18 November 2014, Sydney)

The housing sessions identified that the Access to Premises Standard review was an opportunity to resolve a number of technical aspects and mandate more equitable housing. There is a need to engage with and influence the Australian Building Codes Board's process and this requires a 'strong rationale for engagement by federal policy makers' to include housing in the 2015 APS review. It has since been reported that 17 submissions to the review called for improved access in housing.

g) ANUHD and RIA Report on the progress of the National Dialogue on Universal Housing Design (2015)

In the absence of any review by the National Dialogue, Livable Housing Australia, or COAG with regard to the progress of the agreement, ANUHD and RIA contacted all members of the National Dialogue to report on their achievements to date and their plans to reach the 2020 target. ANUHD and RIA produced a report [11] in 2015 informed by the above consultations and the outputs documented by Livable Housing Australia. The key finding was that the National Dialogue agreement had failed and the voluntary approach would result in less than 5% of the 2020 target.







This was widely distributed and posted on the ANUHD and RIA websites. To date, no organisation has contested the findings in the report or produced alternative findings.

h) ANUHD and RIA Position Statement calling for regulation (2016)

In 2015-2016 ANUHD and RIA consulted with its members and the wider community

seeking support of provisions for accessibility in all newly constructed housing within the National Construction Code. (See **Appendix 6** for the list of organisations and individuals that have formally expressed support for regulation).

i) ANUHD and RIA proposed a review of AS4299-1995
 Adaptable Housing Standard

The Standards Australia proposal to review of AS4299 Adaptable Housing (1995) aimed to align it with the

2010-2020 National Disability Strategy and for future inclusion in the National Construction Code. AS4299 is now 20 years old and no longer reflects current government policy. ANUHD and RIA sought support for this project from the national stakeholder organisations affected by this work.

The national community and professional stakeholders supported this proposal; however, the housing industry stakeholders either ignored it or refused to support it. It is currently under consideration by Standards Australia. See **Appendix 5** for the list of national stakeholders.

In summary, since 2012, there has been no sign of systemic transformation within the housing industry to meet the National Dialogue's and COAG's 2020 target. Although there is community, academic and professional support for an increased supply of accessible housing, the housing industry support is currently not forthcoming. This proposal outlines the government intervention now required in the form of regulation within the National Construction Code, for the National Dialogue's and COAG's 2020 target to be met.

"This proposal outlines the government intervention now required in the form of regulation within the National Construction Code, for the National Dialogue's and COAG's 2020 target to be met."

"There has been no sign

transformation within

the housing industry to

meet the . . . 2020

of systemic

target.







APPENDICES

Appendix 1. Proposed Deemed-to-Satisfy provisions (draft)

The following Deemed-to-Satisfy provisions are informed by the Gold Level of Livable Housing Design guidelines developed by the National Dialogue on Universal Housing Design [43].

Element 1: There is a safe and continuous pathway from the street entrance and parking area to a dwelling entrance that is level.

- 1. Provide a safe and continuous pathway from:
 - i. the front boundary of the allotment: or
 - ii. a car parking space, where provided, which may include the driveway on the allotment, to an entrance that is level as specified in Element 2.

This provision does not apply where the average existing slope of the ground where the path would feature is steeper than 1:14.

- 2. The path of travel as referred to in (a) should have a minimum clear width of 1000mm with turnarounds and passing requirements as per AS1428.1 (2009) and
 - i. an even, firm, slip-resistant surface;
 - ii. a cross-fall of not more than 1:40;
 - iii. a maximum pathway slope of 1:14 with landings provided at no greater intervals as detailed in AS1428.1 (2009) for gradients between 1:20—1:14.
 - iv. a step ramp compliant with AS1428.1 (2009) may be incorporated, with a landing at its head and foot where there is a change in height of 190mm or less.
 - v. The landings must have a length of at least 1500mm exclusive of the swing of the door or gate that opens onto them.

Element 2: There is at least one level entrance into the dwelling to enable home occupants to easily enter and exit the dwelling.

- a) The dwelling should provide an entrance door with:
 - i. a minimum clear opening width of 850mm;
 - ii. a level transition and threshold (maximum vertical tolerance of 3mm. 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled); and
 - reasonable shelter from the weather.
- b) A level landing area of 1450 x 1500mm should be provided at the level entrance door.







- c) Where the threshold at the entrance exceeds 5mm a ramped threshold of up to 35mm compliant with AS1428.1 (2009) may be provided.
- d) The level entrance should be connected to the safe and continuous pathway as specified in Element 1.

Note: The entrance must incorporate waterproofing and termite management requirements as specified in the BCA.

Element 3: Internal doors and corridors facilitate comfortable and unimpeded movement between spaces.

- 1. Doorways to rooms on the entry-level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide:
 - i. a minimum clear opening width of 850mm; and
 - ii. a level transition and threshold (maximum vertical tolerance of 3mm. 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled).
- 2. Internal corridors/passageways to the doorways referred to in (a) should provide a minimum clear width of 1200mm. The corridor can be 1000mm width if the doorways an corridor provide adequate turning space.

Element 4: The ground (or entry) level has a toilet to support easy access for home occupants and visitors.

- a) Dwellings should have a toilet on the ground (or entry) level that provides:
 - i. a minimum clear width of 1200mm between the walls of the bathroom if located in a separate room; and
 - ii. a minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door.
- b) If the toilet is located within the ground (or entry) level bathroom, the toilet pan should be located in the corner of the room to enable the installation of grab rails.

Element 5: The bathroom and shower is designed for easy and independent access for all home occupants.

- a) One bathroom should feature a slip-resistant, hobless (step-free) shower recess. Shower screens are permitted provided they can be removed at a later date, and be located in a bathroom on the ground (or entry) level;
 - (ii) provide dimensions of 900mm x 900mm; and







- (iii) provide a clear space of 1200mm x 1200mm forward of the shower recess entry in accordance with *Figure 2**.
- b) The shower recess should be located in the corner of the room to enable the installation of grab rails at a future date.

Element 6: The bathroom and toilet walls are built to enable grab rails to be safely and economically installed.

- a) Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grab rails.
- b) The fastenings, wall reinforcement and grab rails combined must be able to withstand 1100N of force applied in any position and in any direction.
 - i. The walls around the toilet are to be reinforced by installing sheeting with a thickness of at least 12mm in accordance with
 - ii. Figure 3*.
 - iii. The walls around the bath are to be reinforced by installing sheeting with a thickness of at least 12mm in accordance with Figure 4*.
 - iv. The walls around the hobless (step-free) shower recess are to be reinforced by installing sheeting with a thickness of at least 12mm in accordance with *Figure 5**.

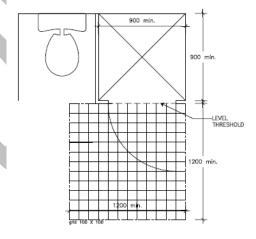


Figure 2. Circulation space requirements for shower recess





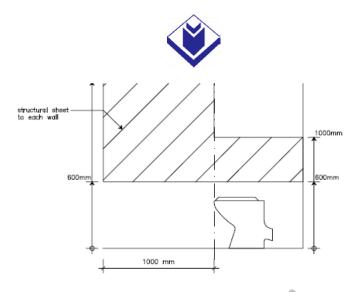


Figure 3. Toilet – location of sheeting

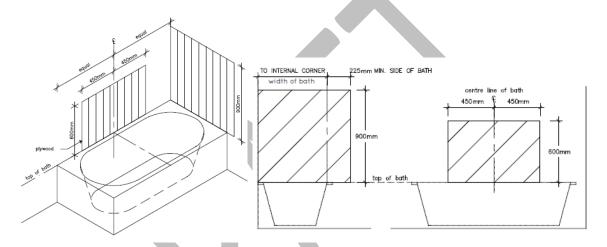


Figure 4. Bath – location of sheeting

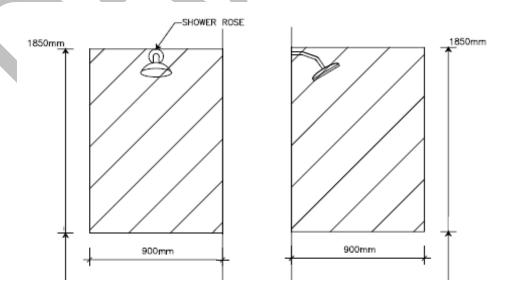


Figure 5. Shower recess – location of sheeting

*These diagrams referred to the Livable Housing Australia's 3rd edition of the Livable Housing Design Guidelines [47].







Appendix 2.

National Dialogue on Universal Housing Design

The members of the National Dialogue in 2010 were:

- Australian Human Rights Commission
- Australian Institute of Architects
- Australian Local Government Association
- Australian Network for Universal Housing Design
- COTA Australia
- Grocon
- Housing Industry Association
- Lend Lease
- Master Builders Australia
- National People with Disabilities and Carers Council
- Office of the Disability Council of NSW
- Property Council of Australia
- Real Estate Institute of Australia
- Stockland

The National Dialogue set interim targets for the adoption of the guidelines in order to gauge the uptake and improvement in awareness of Universal Housing Design over that period of 10 years. The agreed interim targets for uptake by the general community were:

- 25 per cent to Silver level by 2013
- 50 per cent to Silver level by 2015
- 75 per cent to Silver level by 2018
- 100 per cent to Silver level by 2020

The targets for the uptake of the Guidelines by the Commonwealth and the States and Territories were:

- 100 per cent to Silver level by 2011
- 50 per cent to Gold level by 2014
- 75 per cent to Gold level by 2017
- 100 per cent to Gold level by 2019

The National Dialogue's Strategic Plan [1] and Livable Housing Design Guidelines [43] can be found at the Department of Social Services website:

https://www.dss.gov.au/our-responsibilities/disability-and-carers/programservices/government-international/national-disability-strategy-initiatives/livablehousing-design







Appendix 3. Initiatives to stimulate the supply of accessible housing

The following initiatives have been used to stimulate the supply of accessible housing since 1995:

AS4299-1995 and/or AS1428-2009 are referenced in:

- ACT Territory Plan [26]
- NSW State Environmental Planning Policy [27]
- South Australia's amendments to the NCC [28]

Both AS4299-1995 and Livable Housing Design Guidelines are referenced in Local and State Government housing plans for specific details, including

- Queensland Government's Design Standard for Dwellings [29]
- NSW Government's Apartment Design Guide [30]
- Australian Government's National Building Economic Stimulous Plan [31]
- Northern Territory's social housing guidelines [32]
- National Rental Affordability Scheme Funding round 5 [33]

State and Territory social housing programs use a range of standards, including AS4299, AS1428-2009, Livable Housing Design Guidelines and their own standards [11].

Other guidelines have been produced by New Zealand, State and Territory Governments and housing industry organisations to encourage the private housing industry to provide accessible housing, including:

- 2001 ACT Housing for Life guidelines [34]
- 2001 Queensland's Universal Housing Design guidelines [35]
- 2002 BRANZ/Victoria's Building Commission Welcome: design ideas for accessible homes [36]
- 2008 New South Wales' Landcom universal housing design guidelines [37]
- 2008 Queensland's Smart and Sustainable Homes Design Objectives [38]
- 2011 New Zealand's Lifemark Design Standards Overview [39]
- 2011 Queensland's former ULDA Accessible Housing guideline [40]
- 2011 Western Australia's Liveable Homes: designs that work for everyone [41]
- 2015 Healthabitat: Housing for Health The Guide [42], Compiled from work in Indigenous communities over 15 years







Appendix 4. Summary of responses by State and Territory Housing Ministers.

State	Minister	Response	As built Nos
QLD	The Hon. Tim Mander MP Minister for	The Departmenthas committed to adopting and promoting the Livable Housing Design Guidelines.	No figures given
	Housing and Public Works	e department's procurement and design quirements for new apartments and uses including houses in remote ligenous communities, reference the able Housing Design Guidelines 'Gold' and atinum' levels.	
		The department requires proposals for apartment projects to maximise the number of ground-floor and lift-served apartments designed to the LHD guidelines. Up to 30% of social housing apartments in new multi-unit projects are required to meet the Platinum level, with all remaining ground-floor and lift-served apartments designed to Gold level. The minimum standard for houses is Gold level, with the Platinum standard specified for projects in response to identified client need.	
NSW	The Hon. Gabrielle Upton Minister for Family and Community Services	Aim to achieve a minimum of 50 percent of new dwellings designed with liveable housing features. The Liveable Housing standards (sic.) are included in the LAHC Design Standards and exceed "Gold" level of the Livable Housing Australia's Livable Design Guidelines.	No figures given
VIC	The Hon. Wendy Lovell MLC Minister for Housing	I can advise that the Victorian Government has consulted with the Commonwealth concerning the National Dialogue on Universal Housing Design and the Commonwealth Government has been informed of progress.	No figures given







SA The Hon. Zoe **Bettison** Minister for Social Housing

It is estimated that 90% of homes No figures given constructed for Housing SA currently meet [SA Universal Housing Design] criteria.

- Housing SA's current position for newly constructed housing is of a standard comparable with Silver and Gold levels of the [COAG] targets.
- Housing SA Disability Housing which is focussed on providing for the specific of the occupants, almost comprehensively meets the Platinum NDLHDG targets.

TAS The Hon. Jacquie Petrusma MP Minister for Human Services

On 1 April 2012 the Tasmanian Department of Health and Human Services formally adopted a new policy with addressed setting housing design by minimum standards for new social housing developed by Housing Tasmania. This includes, where appropriate, affordable housing projects undertaken by the not for profit sector with Tasmanian Government support.

The fifth objective of this policy was to establish the Liveable [sic] Housing Design Guidelines and universal housing design principles as a minimum standard for all new developments.

These minimum standards are:

New homes constructed to meet the changing needs of residents across their lifetime by ensuring they are easy to enter and move around in, are capable of easy and cost-effective adaptation for the specific needs of aged people and people with disabilities as per guidance from the Liveable [sic] Housing Design Guidelinesgenerally at the silver level however for kitchen, laundry and bedroom space, at Gold level.

84 new homes.

10 existing units modified Platinum level

71 new homes planned.







- Specialist housing for people with significant disabilities should reach the Gold and if possible the Platinum Level.
- The Liveable [sic] Housing Design Guidelines will provide direction when planning for the construction of new residential developments.

I am pleased to say this policy has significantly shaped how Housing Tasmania delivers new dwellings. The policy has also been successfully applied to the refurbishment of existing Housing Tasmania properties, where appropriate.

WA The Hon. Bill
Marmion
MLA Minister
for Housing

Western Australia has not committed to the National Dialogue's proposed targets and we will not be reporting to the Australian Network for Universal Housing Design.

I am pleased to advise that Western Australia incorporates universal design principles in many of our building and construction programs, reflecting our commitment to the National Disability Strategy 2010-2020.

Between 2009-2010 and 2013-2014 more than 2,000 completed dwellings funded through the department have incorporated "substantial elements" of universal housing design 2009-2010 and
2013-2014 more
than 2,000
completed
dwellings
funded through
the department
have
incorporated
"substantial
elements" of
universal
housing design

ACT The Hon.

Andrew Barr

Minister for

Housing

Housing ACT has constructed 73% of its new properties to a Class C standard [AS4299] with the remaining 27% to Gold Standard under the Liveable [*sic*] Housing Guidelines".

No figures given

NT The Hon.

Matt Conlan

Minister for

Housing

The Department's requirements have incorporated universal design features for many years and it promotes core universal design features similar to those described in the Liveable [sic] Housing Design Guidelines.

have No figures given

Decision regarding the use of the Australian







Standard AS 4299 Adaptable Housing are made on a case by case basis taking into account a range of factors, including the client group to be housed and the available budget. The Department's requirements include the Australian Standard AS4299 Adaptable House Classification C as a minimum, and Australian Standard AS 1428.1 Design for access and mobility to bathroom and toilet design where required. The high public percentage of new housing construction in the Northern Territory already meeting the guidelines has shown to be sufficient to meet the current need of tenants.





Appendix 5. National Stakeholders for the Standards Australia proposal

Supporting organisations

Organisation Name	Contact name	Position
City Futures UNSW	Professor Bill Randolph	Director
Home Modifications Information Clearinghouse	Dr Catherine Bridge	Director
Australian Network for Universal Housing Design	Dr Margaret Ward and Mr David Brant	Convenors
Australian Cross Disability Alliance	Ms Therese Sands	Chief Executive Officer
Rights & Inclusion Australia	Mr Michael Fox AM	Chair
COTA Australia	Mr Ian Yates AM	Chief Executive Officer
Australian Federation of Disability Organisations	Mr Matthew Wright	Chief Executive Officer
Australian Council of Social Service	Dr Cassandra Goldie	Chief Executive Officer
Blind Citizens Australia	Ms Leah Van Poppel	Chief Executive Officer
Children with Disability Australia	Ms Stephanie Gotlib	Chief Executive Officer
Every Australian Counts	The Hon John Della Bosca	Chief Executive Officer
National Disability Services	Dr Ken Baker	Chief Executive Officer
Young People in Nursing Homes National Alliance	Dr Bronwyn Morkham	National Director
Physical Disability Council Australia	Ms Liz Reid	President
National Ethnic Disability Alliance	Mr Dwayne Cranfield	Chief Executive Officer
Economic Security for Women	Ms Sharen Page	Co-ordinator
National Foundation for Australian Women	Dr Mary Crawford	Chief Executive Officer
National Rural Women's Coalition	Dr Pat Hamilton	President
Women with Disabilities Australia	Ms Carolyn Frohmader	Executive Director







Organisation Name	Contact name	Position
Summer Foundation	Dr Di Winkler	CEO
Human Rights Commission	The Hon Susan Ryan AO	Age and Disability Discrimination Commissioner
Home Modifications Australia	Mr Michael Bleasdale	Chief Executive Officer
Australian Institute of Architects	Mr Richard Barton	Company Secretary/General Counsel
Australian Rehabilitation and Assistive Technology Assn	Ms Trina Phuah	President
Occupational Therapy Australia	Dr Natasha Layton	National Professional Practice & Standards Manager
National Shelter	Mr Adrian Pisarski	Chief Executive Officer
Modular Building Industry Association Australia	Ms Carolyn Macgill	Executive Officer
Building Designers Association	Mr Ray Brown	Senior Vice President
Australian Institute of Building Surveyors	Mr Brett Mace	Chief Executive Officer
Michael Small Consulting	Mr Michael Small	Director
Eric Martin and Associates	Mr Eric Martin AM	Director
Centre for Universal Design Australia	Dr Jane Bringolf	Director
John Deshon Pty Ltd	Mr John Deshon AM	Principal
pm&d architects	Mr Geoff Barker	Director
Home Design for Living	Ms Elizabeth Ainsworth	Director
	Ms Angela Roennfeldt	Chairperson, ME64 Ctee
Lifemark (New Zealand)	Mr Geoff Penrose	General Manager

Non-supportive National Stakeholders

Organisation	Contact person	Position
Association of Consultants in	Mr Terry Osborn	Secretary
Access Australia		
Livable Housing Australia	Ms Sophie Pickett-Heaps	Chair
Lendlease	Mr Steve McCann	Chief Executive Officer
Housing Industry Association	Ms Kristin Brookfield	Senior Executive Director,
		Building, Development
Master Builders Association	Mr Wilhelm Harnisch	Chief Executive Officer







No response

Organisation Name	Contact name	Position
Australian Local Government	Adrian Beresford-Wylie	Chief Executive
Association		
Grocon	Mr David Waldren	National Design Manager
Property Council of Australia	Mr Nick Proud	Executive Director
		Residential
UDIA	Mr Michael Corcoran	President







Appendix 6. Organisations and individuals that support regulation

Organisation Name	Contact name
Access 2 Place Housing	Jonathan Lardner
Access Australia Planning & Design Pty Ltd	Mr Michael Fox AM
Access Designs	Mr Max Murray
ACOSS	Jacqueline Phillips
Action for More Independence & Dignity in Accommodation	Ms Pauline Williams
ADACAS	Ms Christina Pascoe
AMPARO Advocacy	Maureen Fordyce
Andrew Cross, Architect & Occupational Therapist	Andrew Cross
Annecto	Ms Estelle Fyffe
Araluen Centre	Brenton Daw
ARATA	Trina Phuah
Architecture & Access (Aust) Pty Ltd	Aaron Stowe
architecture.access.advocacy	Wendy Lovelace
Association of Consultants in Access Australia	Terry Osborn
Ausco Modular P/L	Mr Anthony Walsh
Australia for All Alliance	Ms Sheila King
Australian Disability and Indigenous People's Education Fund	Mr Frank Hall-Bentick AM
Australian Federation of Disability Organisations	Matthew Wright
Australian Network for Universal Housing Design	David Brant
Avenues Lifestyle Org	Tess Parker
Bamford Godfrey & Assoc. Pty Ltd	Nicholas C Bamford
Berry Street - Northern Family & Domestic Violence Service	Ms Gayle Correnti
Bespoke Lifestyles	Ms Maria Wiltshire
Blesing Design	Joanne Blesing
Blind Citizens Australia	Tony lezzi
BRIC Housing Company	Gina Pearson
Brisbane City Council	Lord Mayor Graham Quirk
Brownstowe Pty Ltd	Aaron Stowe







Organisation Name	Contact name
Canberra Multicultural Community Forum (CMCF)	Alicia Doherty
Carers Queensland	Debra Cottrell
LivingCare Consulting (LCC)	Carolyn Bennett
Catholic Health Australia	Mr Richard Gray AM
Cerebral Palsy League	Angela Tillmanns
Children with Disability Australia	Stephanie Gotlib
City Futures University of New South Wales	Dr Ilan Weisel
City of Whittlesea	Vivienne Jackson
City of Yarra	Marta Rokicki
Claire Orlowski	Claire Orlowski
Clark Corporate Consulting	Dennis Clark
CMS Architects	Mr Chris Shields
Co-Effective Solutions	Mark Thomson
Community Housing Limited	Preeti Daga
Community Resource Unit	Margaret Rodgers
Community Resourcing	Ash-Lee Hall
COTA Australia	Ian Yates AM
COTA NSW	lan Day
COTA Queensland	Mark Tucker Evans
COTA Tasmania	Alwyn Friedersdorff
COTA Victoria	Liz Harvey
Council to Homeless Persons	Ms Kate Colvin
Dante Della Cruz Architects P/L	Mr Dante Della Cruz
Chisholm Institute Disability Support	Darmah Nrs
Deaf Access Barwon SW	Mr Erica Smith
Deakin University	Ms Valerie Watchorn
Decision Easy	Wim van Herik
Deicke Richards Architects	Phil Smith
Didactic Enterprises	Sue Salthouse
Digby Hughes	Digby Hughes
Dignity for Disability	Hon Kelly Vincent MLC







Organisation Name	Contact name
Disability Consultancy Services Pty Ltd	Becky Llewellyn
Disability Consultancy Services Pty Ltd	Ms Becky Llewellyn
Disability Justice Advocacy Inc	Mr Trevor Carroll
Disability Rights Law Centre	Ms Christina Ryan
Domestic Violence Victoria	Ms Fiona McCormack
Ecclesia Housing	Dr Phillip Morath
EcoCentre	Donell Davis
Eco-Effective Design	Mr Mark Thomson
Economic Security for Women	Sally Jope
Egress Group	Mr Lee Wilson
Enabled Quality Living	Mr Leslie Aldor
Enabling Built Environments Program	Dr Catherine Bridge
Endeavour Foundation	David Barbagallo
Equality Rights Alliance	Ms Helen Dalley-Fisher
Eric Martin and Associates	Eric Martin
Erika Webb Enterprises	Erika Webb
Every Australian Counts	John Della Bosca
First Peoples Disability Network (Australia)	Damian Griffis
Functional Access Solutions	George Xinos
Georgina Martina Inc	Ms Lisa Dunbar
Gillian McFee &Associates	Gillian McFee
Gillian McPhee and Associates	Ms Gillian McPhee
Grampians Disability Advocacy	Ms Kaylene Howell
Home Design for Living	Elizabeth Ainsworth
Home Modifications Australia	Michael Bleasdale
HSPC Disability Access Consultancy	Francesca Davenport
I 4 Development P/L	Mr John O'Shea
IDEAS NSW	Diana Palmer
Inclusion Plus Family Support Inc	Peter Farnham
Independent Advocacy Townsville	Kylie-Maree Beller
Integrated Design Group Pty. Ltd	Mr Tony McBurney







Organisation Name	Contact name
JFA Purple Orange	Geoff Barber
John Deshon Pty Ltd	John Deshon AM
Kay Maclean Disability Consultant	Kay Maclean
Kyabra Community Association	Mr David O'Toole
Living Care Consulting	Carolyn Bennett
Mark Golden Architects	Mr Mark Golden
Melbourne City Mission	Ms Jennifer Boulton
Social Equity Institute, Melbourne Law School	Dr Piers Gooding
MiLife Victoria	Ms Terri Carroll
MND and Me Foundation	Mr Paul Olds
MOIRA	Mr Warwick Cavanagh
Montrose Access	Justin Bobbermien
Moorabool Shire Council	Ms Bev Watson
Moreland City Council	Ms Carolyn Hughes
Moreton Bay Regional Council	Allan Sutherland
Mpower	Ms Kerry Nelson
MS Queensland	Natalie Walsh
MS Queensland	Mr Clinton Hopper
Natalie WrightQUT Lecturer in Interior Design	Natalie Wright
National Affordable Housing Coalition	Mike Myers
National Disability Services	Ken Baker
National Ethnic Disability Alliance	Jane Flanagan
National Foundation for Australian Women	Kate Bosser
National Rural Women's Coalition	Alwyn Friedersdorff
National Shelter	Adrian Pisarski
NDS Victoria	Mr David Moody
No to Violence/Men's Referral Service	Ms Jacqui Watt
Northcott	Tracey Gleeson
Older people Speak Out	Tony Townsend
People with Disability (WA) Inc	Ms Samantha Jenkinson
People with Disability ACT	Mr Robert Altmore







Organisation Name	Contact name	
People with Disability Australia	Therese Sands	
People with disability Western Australia	Debra Sommerfield	
Phillip Chun Access Consulting	Mr Andrew Blamey	
Physical Disability Council of NSW	Serena Ovens	
Place Mate Architects	Jan Hogarth	
PM&D Architects	Mr Geoff Barker	
Public Advocate Qld	Ms Jodie Griffiths-Cook	
QCOSS	Mr Mark Henley	
Qld Anti-Discrimination Commission	Mr Kevin Cocks AM	
Queensland Action for Universal Housing Design	Wendy Lovelace	
Queensland Advocacy Inc	Ms Michelle O'Flynn	
Queensland Aged and Disability Advocacy	Mr Geoff Rowe	
Queensland Alliance for Mental Health Inc	Amara Bains	
Queensland Country Women's Association	Robyn McFarlane	
Queensland Greens Party	Penny Allman-Payne	
Queensland Nurses Union	Beth Mohle	
Queenslanders with Disability Network	Ms Paige Armstrong	
Rights and Inclusion Australia	Michael Fox AM	
Rights in Action	Joseph Lynd	
RMIT	Dr Carmel Laragy	
Ross Howard, Building Designer	Ross Howard	
Salwood Asia Pacific Pty Ltd	Stephen and Dao Midgley	
SBH Queensland	Bill Shead	
Scope(Aust) Pty Ltd	Denise West	
Scope(Aust) Pty Ltd	Dr Jennifer Fitzgerald	
Sisters 4 Sustainability	Ms Donell Davis	
Special Care Central	Yvonne Campbell	
Spinal Injuries Australia	John Mayo	
St Laurence Community Services	Mr Chris Halls	
STAR Victoria Inc	Esther Harris	







	Organisation Name	Contact name	
	State Architect (Qld)	Malcolm AOM	Middleton
	Summer Foundation	Susi Hammon	d
	Sunraysia Residential Services Inc	Marian Luehn	nan
	Sunshine Coast Independent Living Service Inc	Paul Martin	
	Sunshine Coast Special Olympics	Shirley Hastings	
	Sydney Access Consultants	Gary Finn	
	Trish Lapsley occupational therapy & access services	Ms Trish Lapsley	
	Uniting Care Queensland	Ms Anne Cros	SS
	Universal Design Australia	Jane Bringolf	
	VALID	Mr David Craig	
	(former) Victorian Equal Opportunity and Human Rights Commissioner	Ms Kate Jenki	ns
	Victorian Universal Housing Alliance	David Brant	
	Visionary Design Development Pty Ltd	Mary Ann Jackson	
	Vista Access Architects	Farah Madon	
Wayfinding Australia		Bryce Tolliday	
	Whittlesea Disability Network	Alice Wells	
	WIRE Women's Information	Ms Rachael Bausor	
	Women with Disabilities Australia	Carolyn Frohmader	
	Women with Disabilities Victoria	Ms Keran Howe	
	Women's Health and Wellbeing (Barwon SW Inc)	Ms Emily Lee-	Ack
	Women's Health East	Ms Kristine Olaris	
	WSD Access Consultants	Simone Pirovi	ch
	Wyndham City	Mr Alan Cocks	5
	Wyse Access Consulting	Ms Maree Wy	rse
	Yarra City Council	Ms Vijaya Vaid	dyanath
	Young People in Nursing Homes National Alliance	Bronwyn Mor	kham
	YoungCare	Ms Samantha	Kennerly
	Youth Disability Advocacy Service	Dr George Tal	eporos
	YWCA Canberra	Caroline Dem	psey







Organisation Name		Contact name
Zel Iscel-consultant		Zel Iscel
Individuals		
Annabel Drynan	Jo-Anne O'Neill	Neroli Moran
Anthony Nolan	Kerry Hunter	Patrice Latcham
Carolyn Vimpani	Kristine Olaris	Pearl Drolet
Claire Orlowski	Lauren Farrell	Penelope Price
Cnr Alwyn Friedersdorff	Lee Wilson	Professor Jeffrey Soar
Digby Hughes	Lisa Edwards	Rod Hyatt
Dr Barry Seeger	Lisa Stafford	Roslyn Sackley
Dr Rhonda Galbally AO	Mal McKenna	Ross Howard, Building
Emily Steel, OT	Malcolm Merrett	Designer
Emma Lennon	Margaret Stevens	Sophie Thomas
Gillian Turnbull	Marie Coleman AO, PSM	Stephanie McLeish
Heather Falkiner	Marija Groen	Stephen Kelly
Ian and Vivienne Hawkins	Marilyn Adams	Tammy Aplin
Jade Daddo	Mr John MacPherson	Unis Goh
Jean Cotchin	Natalie Walsh	Victoria Jones
Jean Prentis	Natalie Wright	Wendy Banfield







REFERENCES

- NDUHD. Strategic plan. 2010 January 20, 2015]; Available from: https://www.dss.gov.au/sites/default/files/documents/05_2012/national_dialog ue_strategic_plan.pdf.
- 2. COAG, 2010-2020 National Disability Strategy: Progress Report to the Council of Australian Governments Department of Social Services, Editor. 2014, Australian Government: Canberra.
- 3. United Nations. Convention on the rights of persons with disabilities and optional protocol. 2007 22 July 2010]; Available from: http://www.un.org/disabilities/default.asp?navid=14&pid=150.
- 4. Livable Housing Australia. *Home Page*. 2012; Available from: http://livablehousingaustralia.org.au/.
- 5. Productivity Commission, *Caring For Older Australians: Productivity Commission inquiry report*. 2011, Australian Government: Canberra.
- 6. Productivity Commission, *Disability Care and Support: Productivity Commission inquiry report.* 2011, Australian Government: Canberra.
- 7. Major Cities Unit, *State of Australian Cities 2012*. 2012, Australian Government: Canberra.
- 8. Queensland Government, *Absolutely everybody: Enabling Queenslanders with a disability: Whole-of-government action plan 2011-14*, D.o. Communities, Editor. 2011, Queensland Government: Brisbane.
- 9. Government of South Australia, *Housing strategy for South Australia: Green paper*, Dept. for Families and Communities and South Australia. Department of the Premier and Cabinet, Editors. 2011: Adelaide.
- 10. Brisbane City Council, *Brisbane Access and Inclusion Plan 2012-2017:Achieving universal access and inclusion in the life of Brisbane, Australia's new world city.* 2011: Brisbane.
- 11. Australian Network for Universal Housing Design and RI Australia, *Report on the progress of the National Dialogue on Universal Housing Design 2010-2014*. 2014: Sydney.







- 12. National Housing Supply Council, *Housing Supply and Affordability Issues 2012–13*, T. Treasury, Editor. 2013, Commonwealth of Australia: Canberra.
- 13. Goodin, R.E., *Utilitarianism as a public philosophy*. 1995, Cambridge: Cambridge University Press.
- 14. Productivity Commission. *Reform of building regulation*. 2004 July 24, 2010]; Available from: http://129.3.20.41/eps/othr/papers/0506/0506007.pdf.
- 15. Bringolf, J. *Barriers to universal design in housing*. Urban Research Centre, College of Health and Science. [(Doctoral dissertation)] 2011 September 16, 2012]; Available from: http://handle.uws.edu.au:8081/1959.7/506910.
- 16. Committee on Rights of Persons with Handicaps, *The law and persons with handicaps. Volume 1. Physical handicaps* 1978, Government of South Australia: Adelaide.
- 17. Office of the Public Advocate, *Housing Design for All.*, in *Issues Paper 3.* 2005, Queensland Government: Brisbane.
- Disability Investment Group. The way forward. 2009 June 18, 2010]; Available from: http://www.fahcsia.gov.au/sa/disability/news/Pages/disability_investgroup_rep ort.aspx.
- 19. Victorian Government. *Accessible Housing: Public consultation on the visitable and adaptable features in housing regulatory impact statement.* 2010 June 18, 2014]; Available from: http://www.qauhd.org/sites/default/files/RISvictoria.pdf.
- 20. Smith, S., S. Rayer, and E. Smith, *Aging and disability: Implications for the housing industry and housing policy in the United States.* Journal of the American Planning Association, 2008. **74**(3): p. 289-306.
- 21. Smith, S., et al., *Population Aging, Disability and Housing Accessibility: Implications for Sub-national Areas in the United States.* Housing Studies, 2012.

 27(2): p. 252-266.
- 22. Saugeres, L., (Un)accommodating disabilities: housing, marginalization and dependency in Australia. Journal of Housing and the Built Environment, 2010. **26**(1): p. 1-15.







- 23. Salkeld, G., et al., *The cost effectiveness of a home hazard reduction program to reduce falls among older persons.* Australian and New Zealand journal of public health, 2000. **24**(3): p. 265-271.
- 24. Jones, A., D. de Jonge, and R. Phillips, *The role of home maintenance and modification services in achieving health, community care and housing outcomes in later life.*, in *AHURI final report, no.123.* 2008: Brisbane.
- 25. KPMG, Review of Home Modification and Home Maintenance services under the HACC Program: Data analysis and jurisdictional mapping report 2014, Department of Social Services p. 132.
- 26. ACT Government. *Territory Plan*. 2013 July 9, 2013]; Available from: http://www.legislation.act.gov.au/ni/2008-27/current/default.asp#Governance.
- 27. NSW Government, State Environmental Planning Policy No 5—Housing For Older People or People with a Disability under the Environmental Planning and Assessment Act 1979 Department of Environment and Planning, Editor. 2015: Sydney.
- 28. Government of South Australia, *South Australian Housing Code*, Department of Transport and Urban Planning SA, Editor. 2002, Government of South Australia: Adelaide.
- 29. Queensland Government, *Design standards for dwellings: Social Housing: Houses and Apartments*, Department of Housing and Public Works, Editor. 2014, Queensland Government: Brisbane.
- 30. NSW Government, *Apartment design guide*, D.o.E.a. Planning, Editor. 2015, NSW Government: Sydney.
- 31. Australian Government, Social housing initiative guidelines: Element 1-new construction, in Nation Building Economic Stimulus Plan. 2009: Canberra.
- 32. Australian Government, Northern Territory Implementation Plan (2013-14 to 2017-18): National Partnership Agreement on remote Indigenous housing. 2013.
- 33. Livable Housing Australia, *NRAS Applicant and Participant Information*. 2013, Livable Housing Australia.
- 34. Master Builders Association (ACT). *Housing for life*. 2001 21 July 2010 July 19, 2010]; Available from: http://www.mba.org.au/public/page.php?id=79.







- 35. Department of Housing, *Universal housing design*, in *Smarthousing: Towards Sustainable Housing*. 2001, Queensland Government: Brisbane.
- 36. Building Commission Victoria, *Welcome: design ideas for accessible homes*. 2002, Melbourne: Building Commission Victoria.
- 37. Landcom, *Universal housing design guidelines*. 2008, Sydney: Landcom.
- 38. Department of Public Works, *Smart and sustainable homes design objectives*. 2008, Brisbane: Queensland Government.
- 39. Lifemark, Design Standards Overview. 2011, Auckland, NZ: Lifetime Design Ltd.
- 40. Urban Land Development Authority, *Accessible Housing: ULDA guideline No 2*. 2011, Urban Land Development Authority: Brisbane.
- 41. Government of Western Australia. *Liveable homes: designs that work for everyone*. 2011 February 27, 2012]; Available from: http://www.liveablehomes.net.au/.
- 42. Healthabitat Pty/Ltd. *Housing for Health: The Guide*. 2013; Available from: http://www.housingforhealth.com/.
- 43. NDUHD. Livable housing design guidelines. 2010; Available from: https://www.dss.gov.au/our-responsibilities/disability-and-carers/program-services/government-international/national-disability-strategy-initiatives/livable-housing-design/livable-housing-design-guidelines.
- 44. Ward, M. and J. Franz, *The provision of visitable housing in Australia: Down to the detail.* Social Inclusion, 2015. **3**(2): p. 31-43.
- 45. AIHW, *Housing assistance in Australia 2014*. 2014, Australian Government: Canberra.
- Carnemolla, P. and C. Bridge, *Home Modifications and their impact on waged care substitution*, in *Home Modification Information Clearinghouse*. 2011, University of NSW: Sydney.
- Livable Housing Australia, *Livable housing design guidelines version 3*. 2013, Livable Housing Australia: Sydney.
- Imrie, R., *The impact of Part M on the design of new housing*. 2003, London: Centre for Accessible Environments.



