Summary Bulletin: Environmental Assessment & Modification for Australian Occupational Therapists

Authored by
Lyndal Millikan

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Glossary

ABCB	Australian Building Codes Board
ACT	Australian Capital Territory
ADHC	Ageing, Disability and HomeCare
ADL	Activities of Daily Living
AHURI	Australian Housing and Urban Research Institute
AS 1428	Australian Standard 1428 Design for access and mobility
BCA	Building Code of Australia
DVA	Department of Veteran's Affairs
HACC	Home And Community Care
HMinfo	The Home Modification Information Clearinghouse www.homemods.info
NSW	New South Wales
NT	Northern Territory
RAP	Rehabilitation Appliances Program
OT	Occupational Therapist
QLD	Queensland
SA	South Australia
TAS	Tasmania
WA	Western Australia

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Background

Occupational therapists have considered the effect of the built environment on function as part of their core business since the profession was developed. However the term 'environment' can mean different things for different client groups, different cultural groups and different therapists. For the purpose of this paper, environments are defined as those contexts (situations) which occur outside individuals and elicit responses in them (M. Law, 1991).

In New Wales the Commonwealth/State Home and Community Care (HACC) program has been the main context for development of Home Maintenance and Modification services. However, a range of other similar services have been developed alongside the HACC program in an ad hoc manner. Older people who use home maintenance and modification services value them highly and valued the outcomes of greater independence, heightened confidence, greater security, and increased sense of wellbeing (Jones, de Jonge, & Phillips, 2008).

The built environment includes structures such as public buildings, including schools and hospitals, private dwellings, parks and playgrounds, and streets and footpaths that have been designed and constructed by and for people (Shalinsky,1986). Law, De Rezzi & Bradley (2010) discuss occupational therapy interventions which may have a focus on 'removing environmental barriers and increasing supports in order to maximise an individual's occupational performance or participation.'

Occupational therapists receive some training in environmental assessment as part of their undergraduate training and during fieldwork placements. However, this training is not comprehensive nor always in context. For example, the assessment of a domestic environment in the clinical context of a spinal cord injury is very different to that carried out by a mental health practitioner in public housing, which is again considerably different to that undertaken by an access consultant looking at school spaces.

The environment supports function (Letts, Rigby, & Stewart, 2003), and where the environment is itself disabling the opportunity exists for

- retrofit,
- relocation or
- new build depending on the choices, wishes and resources of the individual concerned.

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The purpose of this summary bulletin is to look at the scope of environmental modification in Australia, the fundamental principles of environmental assessment and to document current resources for the Australian therapist. Environmental modification is not a one size fits all approach, nor is there a 'cookbook' that can solve the challenges of the built environment for those with access and functional difficulties. However, for the purposes of illustration, a number of case studies will be used. It is also relevant to note that

> *"Undertaking a review of the published evidence regarding Home Modification service interventions and outcomes is a complex process. First, one has to account for a large number of potential disability types and intervention methods, many of which differ according to their underlying characteristics. Second, there exist a large number of environment, activity and person factorial variation to be considered in making any recommendations concerning improved practice outcomes. Third, examining the causal or probable relationships between assessment, interventions and health, safety or functional improvement is complex because there are many different pathways through which service provision can influence outcome. Finally, the review process is complex because in order to locate relevant materials, the search strategies must be maximally inclusive." (Catherine. Bridge & Phibbs, 2003).*

Although not a systematic review in the true sense the literature review used to develop this paper was based on the guidelines in Bridge & Phibbs' (2003) *Protocol guidelines for systematic reviews of home modification information to inform best practice* to ensure relevant aspects of environmental assessment and intervention were identified and documented.

As a summary bulletin for the occupational therapy profession, this paper seeks to collate and summarise the information available to occupational therapists and occupational therapy students, provide a frame of reference, and be an easily accessible resource relevant to the Australian occupational therapist and their work.

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Search Strategy

Search terms

Environmental + modification
Accessible
Housing + retrofit
Inclusive + design
Disability + housing
Intervention + occupational therapy
Assessment + occupational therapy

Search engines:
Google scholar
Google

Databases:

UNSW Library (Sirius)
SAI Global
Scopus
Web of Science

Library:

HMinfo library

	"environmental modification" AND "occupational therapy"	“housing” AND “occupational therapy”	("modification intervention" AND "occupational therapy"	Relevant ? Yes/no
Scopus	19 Yes: 12	78 Yes: 6	5 Yes: 3	
Sirius	2	1	1	
Web of Science	6 Yes: 2 (both duplicate)	31 Yes: 9 (2 duplicate)	3 Yes: 2 (1 duplicate)	
HMinfo library	114 Yes: 3	74 Yes: 6	35 Yes: 4	

Total resources to review – 57.

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Inclusion criteria

In order for material to be eligible for inclusion into this systematic review, it had to meet all of the following criteria:

- Written / published in English
- Attainable through the UNSW Library or via the World Wide Web (i.e. Google/Google Scholar)
- Based on studies that exclusively involve human subjects
- Searched, obtained via and related to specified keywords (outlined above in question refinement section)
- Published post 1990.

Exclusion criteria

If material met any of the following criteria they were automatically excluded from this research. Excluded item included those:

- written/published in a language other than English;
- studies conducted included subjects that were animal or non-human;
- written before 1990;
- general or unoriginal editorials, whole of subject books or conference papers;
- that did not contain the key words/ search strings;
- did not include home modifications or home visiting as an assessment, intervention or treatment modality; and
- focused predominantly on physical therapy, behavioural intervention, stroke rehabilitation, pain, orthopaedics, psychological issues or other assessment, intervention or treatment modalities other than home modifications.

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Scope of Environmental Modifications

In Australia environmental modifications undertaken by occupational therapists are mainly in domestic dwellings (Clemson, Mackenzie, Ballinger, Close, & Cumming, 2008; Jones et al., 2008).The client groups generally fall within one of the following;

- Privately funded clients
- Compensable clients
- Department of Veterans' Affairs
- State based publicly funded organisations
- Community Housing
- Public Housing.

Other areas where modifications can take place are Independent Living Units, retirement villages, and boarding houses whose residents may be included in any of the above groups.

The principles of environmental assessment, recommendations and reporting will remain the same; however the application of the recommendations will have differing paths that are dependent on the resources that the client is able to access.

Privately funded clients:

Generally the occupational therapist (whether public or private) will advise the client of the modifications they recommend and the client will choose to arrange a private builder or tradesperson at their own expense to undertake these recommendations. It is considered prudent for the occupational therapist to let the client source their own builder, or if the OT does have a list of builders they have used provide the list and let the client make their own decision about which provider to use.

Compensable clients

Various kinds of compensation exist in the Australian context, depending on the management of the client's injury and how it occurred. The main focus is personal injury claims through WorkCover, Motor Vehicle Accident insurance, public liability claims and civil and medico legal claims. Different states and territories have different compensation schemes (e.g. Life Time Care and Support in NSW, and TAC in Victoria), as well as case law and liability legislation. While the Occupational Health & Safety Act (2000) is a federal piece of legislation the application for the WorkCover compensation process is generally run at a local level by the various insurers that cover the region.

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Department of Veterans' Affairs (DVA)

This Commonwealth department provides and funds a number of services to veterans and their dependents (under programs such as HomeFront) including home modifications. The level of service from an occupational therapist is dependent on the Veterans' level of claim (White or Gold). Resources and tools for reporting / submitting modification works to DVA can be found online. These resources and more information is available at http://www.dva.gov.au/service_providers/dental_allied/Pages/index.aspx

If the client has a Repatriation Health Card – For All Conditions (Gold Card), DVA will pay for occupational therapy services available through DVA arrangements that meet the client's clinical needs.

If the client has a Repatriation Health Card – For Specific Conditions (White Card), DVA will pay for occupational therapy services if provided under DVA arrangements, that are required because of an accepted war or service caused injury or disease.

Where a White Card has been issued for:

- malignant cancer;
- pulmonary tuberculosis; or
- post traumatic stress disorder (PTSD); or
- anxiety and/or depression whether war caused or not,

DVA will fund treatment for clinical needs related to these conditions (The Department of Veteran's Affairs, 2011)

DVA also have a factsheet for consumers on how to access OT services.

http://factsheets.dva.gov.au/factsheets/documents/HSV23%20Occupational%20Therapy%20Services.pdf

Depending on the area in which the OT is working DVA clients may or may not fit eligibility criteria. For example, many community health services refer DVA clients onto private occupational therapists.

Always check with the clinical senior / service manager about how DVA clients are managed in your service.

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Government funded organisations

The Home and Community Care (HACC) Program is a joint Australian, State and Territory Government Initiative.

The HACC Program provides services such as domestic assistance, personal care as well as professional allied health care and nursing services, in order to support older Australians, younger people with a disability and their carers to be more independent at home and in the community and to reduce the potential or inappropriate need for admission to residential care.

Please go to Appendix 1 for a state by state summary of the HACC programs that are involved in environmental modifications.

Community Housing (such as The Community Housing Federation of Victoria)

There are 3 main types of community housing: housing associations, co-operatives and church owned housing. Housing associations manage the vast majority of community housing tenancies, the others play a crucial part in making community housing the vital and diverse sector that it is (NSW Federation of Community Housing Inc., 2011).

1. Housing associations are specific professional not-for-profit housing providers. While they mainly manage rental housing, they may provide other services as well.
2. Co-operative housing is subsidised by government, but is fully managed by the tenants themselves, providing real control and 'ownership' of their housing.
3. Church-based agencies have responded to need in their local communities and bring church resources to the table.

Generally community housing is delivered by funded community organisations and tenancy will be managed by that community housing organisation. In that vein, when planning modifications it is essential to contact the Community Housing Provider (CHP) with regard to their policy and/or procedures in this regard. In some cases, particularly if the client is HACC eligible, the CHP may only be required to supply the "Authority to Install" document. In others case, the CHP may choose to offer relocation to a more suitable property within their range of available housing stock.

Please go to Appendix 2 for a state by state summary of the community housing peak bodies.

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Aboriginal Community Housing

There is a distinct, Indigenous-controlled, housing system. While much of this housing is managed through the relevant state department that manages public housing, there is also significant number Aboriginal community based housing providers.

Please go to Appendix 3 for a state by state summary of the Aboriginal community housing peak bodies.

Public Housing (such as The Department of Housing, Western Australia).

Each state and territory in Australia has its own public housing program and each have programs within it to modify/retrofit existing housing to suit their tenants abilities, to purpose build specific properties for people with different abilities and disabilities, and to support tenants with specific environment needs access the private rental marker if nothing is available in their geographical area. Each States body has a different name and policy on this.

Most occupational therapy departments will have information on the practices of their local public housing body and the best way to communicate with their modifications program.

Unlike other funded services, eligibility is usually focused on the fact that the client is already in public housing. The request for modifications usually only needs to state the functional reason for the person need the modification, not an in depth medical background. Client privacy and confidentiality is relevant here and the clinical senior in the area will probably have an example of a report that will demonstrate the level of information that is required in order to have modifications undertaken.

In some cases the relevant body may decide that the cost of modifications is untenable and will recommend that the client relocate to a more suitable property. There is a caveat in housing tenancy documents that covers this eventuality and it may be prudent to advise your client of this prior to lodging a request for major modifications. The client can decline the recommendation to relocate and accept the agency's decision to decline the modifications for that particular property.

If there are particular reasons as to why the client relocating is untenable (such as carer availability or proximity to relevant locations) these should be documented and reported on if a response to the modification decline is prepared. For example if a client's primary carer does not drive and walks to the client each day, relocation may cause significant impact on the client's well being and ability to manage in the community.

Please go to Appendix 4 for a state and territory summary of public housing.

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Legislation and Regulations

Bridge (2010) notes that access standards and building codes, while useful for general guidance, cannot account for individual needs. All therapist-determined recommendations (relevant to client anthropometrics and subsequent function) should be identified and documented and then put to test against any relevant legislation / regulations and codes by the installing tradesperson.

In some cases, where the Australian Standard 1428 is used as part of a home modification service delivery guideline for example, a client's anthropometrical data can determine that the AS1428 is not relevant for that person and it should then be used as a guide only. The therapist will need to document this and any negotiation with the relevant tradesperson / home modifications coordinator.

Other Standards, for example the Electrical Standards Act, the requirements are legislated and cannot be altered. Although occupational therapists are not trained in these specific areas and should not profess expertise with regard to building, plumbing etc, occupational therapists need to be aware of specific, relevant legislative requirements and regulations/codes. Not all these are directly related to the built environment but may have indirect relevance when their purpose is examined more closely. Areas such as Privacy, and Discrimination are also relevant to the practicing occupational therapist.

Commonwealth legislation and regulations

AS 1428

Carnemolla & Bridge (2011) noted that Australia's primary legislated guidelines for Accessibility, AS 1428 Part 1 (Standards Australia, 2001) and Part 2 (Standards Australia, 1992b) do not include accessible front entrance solutions, primarily because the Standards were developed with commercial entrances in mind; consequently the AS1428 suite focuses on urban, commercial entrances requiring ramps or lifts, not domestic responses for individuals. It is worth noting that scooters are not considered in the A90 footprint sizing and that many wheelchairs are also larger than this specification. There has been a recent amendment to this standard;

Design for access and mobility and can be summarised as follows

- Circulation spaces now based on A90 wheelchair – 90th percentile (used to be based on 80th percentile)
- OTs cannot deviate from standards for ramps or ramp handrail width (1000mm).

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(c) At doorways, including door width and circulation space.

NOTE: The majority of the dimensions relevant to the 90th percentile in this Standard are based on the findings of research undertaken by J. Bails, 1983 (see Bibliography).

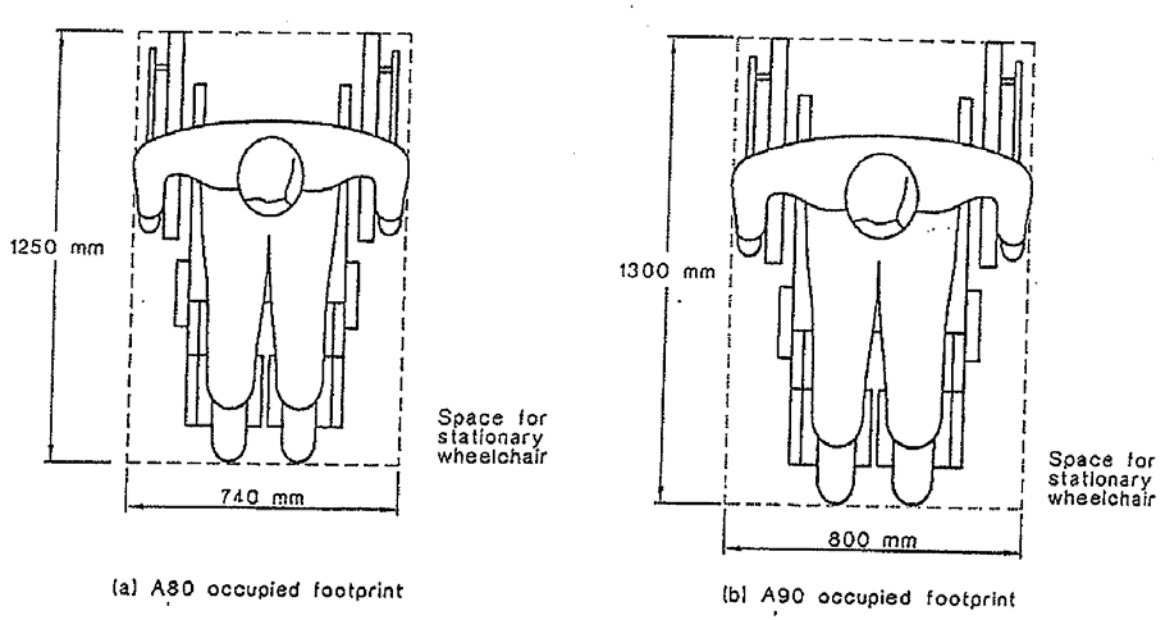

FIGURE 1 FOOTPRINT FOR AN OCCUPIED WHEELCHAIR

"Regular" Ramp – any ramp with a rise of over 190mm

- Landing sizes for turn >60° is 1500mm² (this was 1000W x 1200L)
- Landing sizes for turn 180° is 1540mm depth by 1000mm + *X* + 1000mm width

Step Ramps; these are any ramping that is for a rise of between 35mm and 190mm

- Length: Max 1900mm
- Gradient: 1:10
- Width: 1000mm unobstructed
- Ramp and top landing
  - Protective barrier (at sides) i.e. abuts a wall, min. height 450mm &/or handrail/kerb rail
  - Caution – 450mm very low – trip hazard
- Length of landings
  - Min. 1500mm unless no turn then min. 1200mm
- Need to supply rails AND kerb rails.

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Handrails

- There has been a review of handrail terminations for 1:14 gradient ramps as a 180 ° turn-around has lower chance of injury

Threshold Ramps

- Rise – max. 35mm – reduced due to wheelchair users having reduced functional reach
- Length – max. 280mm
- Gradient – 1:8
- Edges splayed 45 degrees unless abuts a wall
- Should have colour contrast

Wedges

- Must be colour contrasted
- For max. 35mm height and length 100 – 150mm (door jamb)

Doorways and Circulation Spaces

- Clear opening of doorways
  - Minimum 850mm (A90 w/c)
  - See table for “front approach” dimensions
  - Door handles – “D” lever type – this needs to be specified i.e. otherwise recessed handles may be supplied for sliding doors – hard to grip
  - Consider type of door to be used – direction of swing, sliding door, direction of access.

Access to Premises

The Access to Premises Standards (commonly referred to as the ‘Premises Standards”) were introduced in line with an updated Building Code of Australia (BCA) on 1st May 2011 (Carnemolla & Bridge, 2011) and is intended to clarify how designers, developers, managers and building certifiers can meet their responsibilities under discrimination law to ensure that buildings are accessible to people with a disability.

The Standards were published in May 2010 to provide sufficient time for the building industry to make the necessary adjustments to any current applications and building designs. The Standards apply to ‘public buildings’, which includes hotels, tourist accommodation, and retail premises, commercial and industrial buildings, government buildings, theatres and cinemas as well as the common areas of strata apartments.

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Building Code of Australia (2011)

The Building Code of Australia (BCA) is produced and maintained by the Australian Building Codes Board (ABCB) on behalf of the Australian Government and all State and Territory Governments. The BCA has been given the status of building regulations by all States and Territories. The BCA is updated on a regular basis (usually each year).

According to the ABCB, the goal of the BCA is to "*enable the achievement of nationally consistent, minimum necessary standards of relevant, health, safety (including structural safety and safety from fire), and amenity and sustainability objectives efficiently."* The updated Building Code of Australia (BCA) 2011 is effective from 1 May 2011 and supersedes the BCA 2010.

Electrical

Standards Australia/Standards New Zealand. (2007). *Australian/New Zealand Standard, Electrical Installations: Wiring Rules* (3000:2007, Amendment Nos 1, 2 & 3 ed.): Standards Australia/Standards New Zealand.

Disability Discrimination

The Disability Discrimination Act (DDA) 1992 provides protection for everyone in Australia against discrimination based on disability. It encourages everyone to be involved in implementing the Act and to share in the overall benefits to the community and the economy that flow from participation by the widest range of people. Disability discrimination happens when people with a disability are treated less fairly than people without a disability. Disability discrimination also occurs when people are treated less fairly because they are relatives, friends, carers, co-workers or associates of a person with a disability (HREOC, 2011).

Privacy

The Privacy Act regulates 'information privacy'. It covers a number of different activities and sectors. The type of privacy covered by the Privacy Act is the protection of people's personal information, where personal information is defined as information that identifies a person or could identify a person. There are some obvious examples of personal information, such as a client name or address. Personal information can also include medical records, bank account details, photos, videos, and even information about what someone likes, their opinions and where they work - basically, any information where someone is reasonably identifiable. Information does not have to include a name to be personal information. For example, in some cases, the date of birth and post code may be enough to identify someone. To be precise, the Privacy Act definition of personal information is:

"... information or an opinion (including information or an opinion forming part of a database), whether true or not, and whether recorded in a material form or not, about an individual whose identity is apparent, or can reasonably be ascertained, from the information or opinion" (Office of the Australian Information Commissioner, 2010)

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Principles of environmental assessment

Models of Practice

The three main models of practice used in Australia are succinctly described in Stamm, Cieza, Machold, Smolen, & Stucki (2006) as follows:

Occupational Performance Model (Australia)

In the centre of the OPM(A) is occupational performance. Five main components constitute occupational performance: biomechanical performance, sensory-motor performance, cognitive performance, intrapersonal performance and interpersonal performance. The external environment is divided into the physical, sensory, cultural and social environments. Core elements of occupational performance are the body element, the mind element and the spirit element. Occupational performance is embedded in space and time. Space refers to physical matter (physical space) and the person's experience of space (felt space). Time refers to the temporal ordering of physical events (physical time) as well the meaning that is attributed to time by the person (felt time) (Chapparo & Ranka, 1997).

Model of Human Occupation

*The centre of the MoHO is the human system. A system refers to any complex of elements that interact and together constitute a logical whole with a purpose of function. Occupational behaviour is a result of the human system, the task and the environment. The human system has three subsystems: the volition subsystem (for making occupational choices; consists of values, interests and personal causation), the habituation subsystem (consists of habits of occupational behaviour), and the mind-brain-body performance subsystem (describes the performance capacity). In addition, the environment influences human occupational behaviour: physical, social and cultural environments constitute occupational behaviour settings such as in the home, school or workplace and recreation sites (*Kielhofner, 1995*;* Kielhofner & Forsyth, 1997*).*

Canadian Model of Occupational Performance

In the centre of the CMOP is occupational performance. Occupational performance is defined as the overlap of three key terms: occupation, environment and a person. The result of the dynamic relationship between occupation, environment and a person is occupational performance. The key elements of the environment are cultural, institutional, physical and social. Purposes of occupations can either be leisure, productivity or self-care. The CMOP presents the person as an integrated whole who incorporates spiritual and affective, cognitive and physical needs (Townsend, 2002).

While each model differs in conceptual framework, documentation and description of core items, all acknowledge the causal link between environment and function. As part of the home assessment process the occupational therapist is uniquely positioned to

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consider the impact and influence of each characteristic (or feature) of the domestic built environment of the occupational performance of their client (and their relevant carer/s).

The Client

A transactional approach considers that the interaction between the client and their environment is a dynamic entity and that the person and the context at that point in time can only be understood and assessed together, as a unified system and not in isolation of each other (Tanner, 2011). This is the concept that underpins the preferred method of a home assessment – with the client present. An occupational therapist may be requested to undertake an assessment without the client present and this is often a necessity to ensure that the home environment can support the visit itself (particularly in the case of severely injured or debilitated clients) however it is difficult to determine function / environmental press inherent in the person-environment-occupation relationship without the client being at the assessment. Bridge (2008) takes the idea a step further and links the less apparent, but equally important areas such as health status and prognosis, anthropometrical data, and knowledge of the client / therapist into the equation.

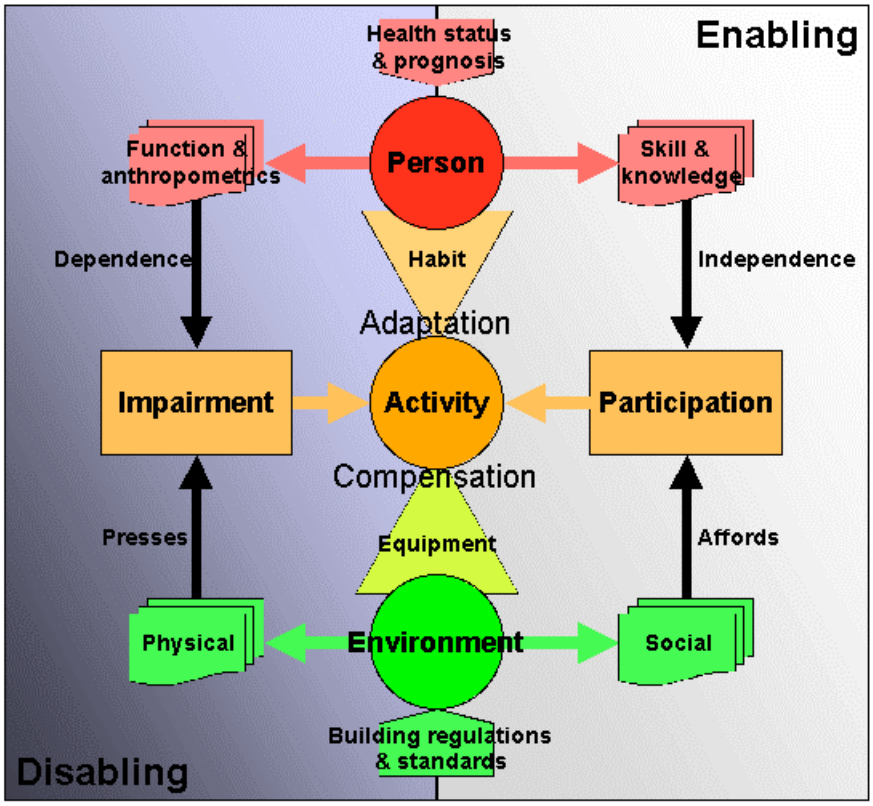

Figure 1: Activity centric dynamic between the person and the environment (Catherine Bridge, 2008)

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Law, Baptiste & Mills (1995) identified the key concepts of client-centred practice:

- individual autonomy and choice,
- partnership,
- therapist and client responsibility,
- enablement,
- contextual congruence,
- accessibility and
- respect for diversity.

The effective occupational therapist will consider these concepts when looking at modifying a person's environment (home, work or otherwise). Context of function and how that environment fits the client and their abilities is paramount.

Letts, et al (2003) note that environmental modifications are not only changes to the physical environment. In their chapter "Home Modification that Enable Occupational Performance" the authors note the following activities modify the environment and must be considered as such;

- Changes to the Physical Environment:
  - Modify the layout (remove a door to make the opening wider)
  - Provide adaptive equipment (provide a tub bench)
  - Architectural modifications (provide a ramp, bathroom modifications)
- Modification of the occupation
  - Educate the user in how to use the environment in a different way
  - Use of everyday items for a different purpose or to achieve goals
- Supports from people
  - Caregiver education (such as transfer techniques)
  - Engaging in person based services (such as meal delivery).

If any of these are to be implemented, the overlay of the physical environment for all users (including family, friends, and visitors, formal and informal carers) needs to be identified and considered.

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Assessment of the Home Environment

It can be stated with a high level of confidence that most occupational therapy departments in Australia have a home visit assessment form or protocol in place. The author's personal experience across a number of sites and contexts finds that the areas usually marked for comment in these general assessments are

- Access (front, back, side)
- Bathroom
- Toilet
- Lounge or sitting room
- Laundry
- Bedroom
- Kitchen.

This is not to say that some occupational therapy services do not have more or less thorough or complex assessment protocols, but rather, that these are the areas that are prioritised across the most common contexts, for example, rehabilitation or community care (Letts et al., 2003).

It has been recognised that home assessments and their related documentation serve a number of purposes:

- communication between OT and treating health team,
- the basis for clinical reasoning when prescribing modifications and/or equipment,
- evidence of occupational therapy involvement.

These assessments and reports are often sent to a third party, such as the DVA, a local home modification and maintenance provider, builder, or a public or community housing provider (such as Housing NSW). An advisory group convened by the NSW Home Modification and Maintenance State (HMMS) Council (2009) found that many OTs, when tendering their reports and recommendations, did not clearly or appropriately address the issues, nor did they provide adequate clinical reasoning for their recommendations. As a result, the NSW HMMS State Council charged this advisory group with the development of fact sheets to assist OTs to make better informed decisions and document their findings consistently. The outcomes of this project (Fact Sheets) can be found on the NSW HMMS website at www.nswhmms.org.au.

It was also suggested that occupational therapists may not have the time to review and analyse those features and characteristics of the home environment that are covert, or that the existing training and practice offered to undergraduates is unable to cover these areas to the level expected by the client of the occupational therapist. This is an area that would benefit from further research.

One of the unique skills that the occupational therapist has is to overlay the functional status of the client upon the built environment where they will be living their lives. To this end, the occupational therapist is required to take a critical view of the built environment beyond the title, use and projected use of the room. This is followed by an analysis of both the explicit and implicit features that may impact on the client, their function, the built environment at the time of assessment, and to reasonably project how these will interact in the future.

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When undertaking their assessment occupational therapy home assessors should consider the physical features and sub features, characteristics and sub characteristics (relevant to their client) as outlined in Table 1. This is by no means an exhaustive list however does demonstrate the level of analysis that the therapist should consider before making a recommendation. This is the realm of the clinical reasoning process for OTs, and where the intersection between form, function and context occurs. Careful examination and analysis of the client, their abilities and their environment is crucial before making recommendations about the retrofit or modification of a person's environment.

Table 1: Physical features and sub features, characteristics and sub characteristics relevant to assessment for environmental modification in the home

Feature	Sub feature	Characteristics	Sub characteristics	Impact on function
Access	Street frontage (or equivalent) Driveway Front access Back access Side access Internal access	Gutter / kerbing Stairs / steps Ramp Driveway Lift / elevator Lighting	Material (concrete, wood, tiles etc). Slope / gradient Ownership - Torrens / strata / council	Mobility
Bathroom	Main or En suite Indoor or outdoor Large / small Upstairs / downstairs	Shower recess, bath, shower over bath Hand shower, static shower rose Sliding glass door, shower curtain Flooring Taps, faucet (single or double) Storage Drainage	Materials (Tiled, linoleum, timber, concrete sheet, concrete slab). Tap type, faucet type, tap control,	Transfers Mobility Personal care

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Feature	Sub feature	Characteristics	Sub characteristics	Impact on function
Toilet	Main or En suite Indoor or outdoor Large / small Upstairs / downstairs	Co-located, cabinet style, seat height, position, use, cistern location, grab rails, ADL equipment, bidet feature, separate bidet	Materials, floor covering, flush control mechanism, toilet paper feed, toilet paper storage, feminine hygiene management and storage of items.;	Transfers Personal care
Hallways	Size Length Purpose / use	Lighting Access / egress	Floor surface / covering, Direction / prompts Control of lighting	Mobility
Bedroom	Location and access to room Main / secondary / spare Use / size upstairs / downstairs	Access / egress Furniture Users - shared, sole occupant, activity	Windows / window dressings and control thereof. Thermoregulation (passive), and temperature management tools and control thereof. Power sources and control thereof. Lighting and control of lighting	Transfer Mobility Personal care Domestic tasks
Kitchen	Location Size Set out (galley, square, rectangle, open plan).	Access / egress Users Use of room (eating or preparation only)	Appliances: Type of and location thereof • fridge and freezer • kettle / equivalent • stove type and controls • oven type and controls • microwave type and controls • Direction of door opening Source of drinking water (tap, fridge, filter, purifier,	Transfer Mobility Eating / drinking Domestic tasks

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			jugs etc) Tap – type and style, location and age, how taps are used.	
Feature	**Sub feature**	**Characteristics**	**Sub characteristics**	**Impact on function**
Lounge	Location Size Position / aspect	Access / egress Seating Furniture position and use,	Thermoregulation (passive), and temperature management tools and control thereof. Windows / window dressings and control thereof. Power sources and control thereof. Lighting and control of lighting Appliances: • Television / remote control • DVD / video player • Stereo / remote control • Fans/air conditioners Seating – type and control (if relevant)	Transfer Mobility Eating / drinking Domestic tasks
Backyard	Location Size Position / aspect	Access / egress Yard furniture position and use, Seating Yard equipment (clothesline) Verandah / pergola Roofed area Pool Garden tap fencing	Materials (Tiled, paving, timber, concrete sheet, concrete slab). Tap type, faucet type, tap control, Paths	Transfer Mobility Eating / drinking Domestic tasks Home maintenance Yard care Pet care security
	Definitions: **Element**: portion of a project that fulfils a particular physical			

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purpose irrespective of construction and / or specification (Leslie & Potter, 2004, p. 85).

Characteristic: property that distinguishes the totality of specific items under consideration (Leslie & Potter, 2004, p. 42).

Attribute: property or characteristic of a physical object of any kind, including construction products, work sections, elements and whole facilities (Leslie & Potter, 2004, p. 15).

Property: inherent or acquired feature of an item (Leslie & Potter, 2004, p. 214)

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Identifying mismatches between client function and environmental press.

Basic task analysis is the key to any high quality assessment of functional problems, however the occupational therapist needs to look more widely than this when synthesising the reasons behind dysfunction and possible methods of improving it.

To use showering as an example, apart from the client's function, what other aspects are relevant for the task?

- showering environment
- showering tools
- showering resources
- showering by products.

Looking at each aspect of the task, including the environmental and tool based requirements, the therapist may be able to identify additional issues that modifications, equipment or a change in process can manage. This is also the process where the therapist collects the evidence to support the recommendations for an environmental modification.

Table 2: Synthesising potential issues using a task based analysis of the environment.

	Showering in a bounded shower recess / shower over bath	Showering using a stepless shower or over floor drainage.
Environment Structural features	Shower recess base with graded floor to drain tiled walls glass door or shower curtain with rod soap dish shower rose or hand held shower hose shower stool opportunity to install grab rails (wall material)	tiled floor/ floor drainage/ underfloor Bathroom door and doorframe Lighting Heating Fan extraction Window Other storage (shelves?) actual shower recess or bathtub towel rails and towels vanity unit or basin power point (GPO)

Tools Shower hose	Used in the recess space, bounded by a barrier (such as glass, shower curtain)	Used attached to basin tapware.
Resources Soap, face washer, towel, shaving cream, shampoo, conditioner,	Stored in the recess space bounded by a barrier (such as glass, shower curtain)	Stored in vanity, or basin or on floor.
By products Water, soap and shampoo residue, hair, dirt, body oils, blood, urine, faecal matter.	Goes down the drain or, if splash occurs, bounded by a barrier (such as glass, shower curtain).	Goes onto floor, and eventually goes down overflow drainage.

As a result of this, the therapist may need to consider how the client will manage something as seemingly simple as the storage of shampoo, and how they will get it from the bottle, onto their hand then onto their head. The therapist needs to consider the role of the room itself in the personal care routine; does the very design cause dysfunction?

Making recommendations to change a person's environment

This is where the synthesis of client assessment, environmental features and task analysis occurs. The occupational therapist should ask the following questions when reviewing their recommendations;

- What clinical reasoning was used to back up this decision?
- Does my level of expertise cover this activity?
- What does the evidence say about this practice?

If any of these questions are difficult to answer, this is an indicator that consultation with a senior therapist (or a recognised peer in the field) is warranted.

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Are there any guidelines / regulations / resources that deal with some of the specific characteristics identified?

For example:

Characteristic	**Risk**	**Legislation/regulations/standards etc**
Tiles	Falls, slips,	Waterproofing (Standards Australia, 2004)
Floor Gradient	Falls, slips,	Clause 1.5.8 and 5.9 (Standards Australia, 2004)
Rails	Come out of wall, hands slip off	Downward force of 1100N - Section 17 (Standards Australia, 2001)
Lights	Heat, globes shatter, luxe rating,	*Australian Standard Lux* Levels for various working environments and locations. **(**AS1680.2.4:1997)
Heating	Heat, electricity, location	AS/NZS 3000:2007
Fans	Location, electricity	AS/NZS 3000:2007
Power points	Location, electricity	AS/NZS 3000:2007

These are areas that occupational therapists may have some knowledge of but are not qualified to comment on in the scope of works for an environmental modification.

An understanding of the limitation of the profession in the area of environmental modifications is very important. There may be therapists who have a thorough understanding of the areas, whether through personal knowledge or extensive clinical experience, which does not mitigate the need to understand and adhere to professional boundaries.

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What is the legal responsibility?

The basis of any occupational therapy home modification recommendations should rest on:

- consultation with the client or client's legal guardian
- investigation of the client's functional needs
- familiarity with function based environmental solutions

Good practice, as previously advocated by OT Australia, involves use of a legal disclaimer in professional home visit documentation. Such a disclaimer usually outlines any limitations of the assessment and suggested interventions that need to be taken into account by users (consumers and building professionals). A disclaimer does not completely remove your legal liability, but acts to reduce the potential for lawsuits, by warning of can reasonably be expected from, a qualified occupational therapist(C. Bridge, 2007).

In general, there is agreement from occupational therapy educators that the basic OT qualification means that occupational therapists are **insufficiently** professionally qualified to accept responsibility for primary knowledge about:

- Structural ramifications of recommendations (e.g. remove wall etc.)
- Building codes (i.e. fire safety, ventilation, electrical wiring etc.)
- Cost of works (i.e. construction materials, labour and overheads)
- Quality of trades (e.g. This depends on skills and abilities of design and construction staff and selection of appropriate finishing and fixings etc.)
- Prioritisation of the scope of works (i.e. acceptable exclusions).

Occupational therapists are however expected to have expertise on maximising human function. The primary responsibility is to outline the consequences of problems and the expected benefits of the corresponding solutions.

Because of the complexity, variability in knowledge and skill levels etc, much can, and does, go wrong during the actual construction process. For this reason, it is critical that the occupational therapist makes it clear that they take no responsibility for supervision of the work, or for the quality of the workmanship (C. Bridge, 2007)

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Using a disclaimer

A disclaimer is generally any statement intended to specify or delimit the scope of rights and obligations that may be exercised and enforced by parties in a legally recognized relationship (Wikipedia, 2012). The client / therapist relationship is a legally recognised relationship and carries with it a duty of care. In tort law, a duty of care is a legal obligation imposed on an individual requiring that they adhere to a standard of reasonable care while performing any acts that could foreseeably harm others.

In 1999, OT AUSTRALIA NSW recognized the need for occupational therapists to acknowledge what was, and what was not their areas of expertise in the prescription of environmental modifications.

The following disclaimer was developed to assist in clarifying this.

"*The recommendations contained in this form are made after consultation with the client and an investigation of the client's circumstances and needs. Their purpose is to outline steps required to be taken for the benefit of the client, having regard to his or her disabilities. They do not purport to reflect other than limited knowledge on the part of the occupational therapist of structural considerations and building codes. Any queries, concerns or alterations considered necessary for compliance with current building regulations must be discussed with the occupational therapist before quoting for the cost of the work and before the work proceeds. The occupational therapist accepts no responsibility for supervision of the work or for the quality of workmanship"* (Houen, 1999).

Occupational Therapists and their managers need to decide whether or not a disclaimer is required for their documentation, and ensure that the body that oversees clinical governance in that facility is satisfied with their choice.

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In Summary

Occupational therapists work to assist their clients gain the optimal level of function in their chosen environment. On the surface, this intervention can seem simple and straightforward however on further analysis, it requires the therapist to have a through understand of the relationship of the person, their function and their environment and how these three relate to each other.

The therapist also needs to have an understanding how an environmental modification can change the context of that environment, function and ultimately the person.

Specific features of the built environment will have greater impact on a person's function than others. These features can be identified and analysed by careful tasks analysis.

As the therapist continues to assess and review their client's needs and environment, working with their client to establish what is and is not going to meet with their needs from a holistic perspective, a plan and subsequent recommendation list can be developed.

Depending on the level of complexity of modification, the therapist needs to be able to recognize where their own level of expertise is adequate and when to consult with relevant professionals such as senior therapists, builders or a plumber / electrician.

In addition, therapists need to be aware of the legislative framework in which they operate and be able to determine where in this framework they fit.

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Case Studies

Case Study: Straightforward

Mr JC is a 28 year old man who had an accident in mid 2011 falling off a ladder at home. He fractured his left ankle and femur, and partially dislocated his head of femur. Since undertaking inpatient rehabilitation he has made significant progress and is planning to return home after 3 months staying at his mother's home. A referral was made to the local community OT service to assist with the return home and a home assessment requested by the GP for 'a rail and maybe some equipment.'

OCCUPATIONAL THERAPY HOME ASSESSMENT	
Occupational Therapist : A.Therapist	**Date assessed:** 01-05-XXXX
Medical Diagnosis: accident in June 2011 falling off a ladder at home (clearing gutters from second floor of house). He fractured his left ankle and femur (mid shaft) and mild dislocation of femur head. Since undertaking inpatient rehabilitation he has made significant progress and is planning to return home after 2 months staying at his mother's home. *Falls History*- nil previously	
Present at Assessment: client and OT	
Social Situation: 28 year old man living in own home – strata title townhouse. He has been coming to the house each day but spending nights at his parent's home.	
Presentation: Client was alert and oriented. He was enthusiastic to return home as soon as possible but concerned at how he would manage the steep internal stairs to upstairs bedroom and bathroom, yard maintenance, and managing shopping etc as he is still using a crutch on the left side.	

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HOME ENVIRONMENT and FUNCTIONAL PERFORMANCE	
Access and Mobility	**Access:** Driveway into garage (last unit in strata) with remote controlled double garage door. Flat to leave garage and one step up to front gate and path to front steps. Path is brick style paving. **Front:** 3 concrete steps to front porch. Low (730mm) square rail left side ascending. Outward opening security door. **Rear:** 1 step from back door to deck. 2 steps from laundry to yard area. Nil rails in place. Paved back courtyard with rotary clothesline in place. **Internal:** Ground floor – tiled kitchen and laundry. Carpeted lounge area. Internal L shaped staircase of 17 stairs. Bannister rail left side ascending. Upper floor – carpeted throughout except for tiled floor in bathroom and toilet. *Function:* mobilised freely on each floor however difficulties observed with ascent and descent of stairs, especially if carrying an item such as laundry basket, or briefcase (home office is upstairs).
Bathroom:	*Environment:* Contains shower recess, bathtub, vanity unit and wall mounted shaving cabinet. *Function:* Able to get in and out of shower recess with no difficulty but reports left leg does tire and can get painful. Has a shower stool in place. Static shower rose in place. Client has lowered the shower head and tilted rose in lieu of hand shower. Mobilises from bathroom to bedroom with towel around waist to complete drying and to dress.
Toilet:	*Environment:* Upstairs - Cabinet style toilet. Inward opening door. Downstairs- Cabinet style toilet located off laundry. *Function:* Client reports independent in using toilet however leaves door open as a safety measure.
Bedroom:	*Environment:* Contains queen bed on wooden bed frame, bilateral bedsides with lamps. Built in wardrobe with sliding doors. Chair located near wardrobe that client advises he will use to sit on to get dressed, particularly lower body and footwear. *Function:* Independent with bed mobility and sit to stand transfers from bed.
Kitchen:	*Environment:* Small, tidy kitchen. Contains wall oven and microwave. Has dishwasher and built in drawer style bins. *Function:* Nil difficulty reaching required items.

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Lounge:	*Environment:* 1 x 2 ½ seater sofa bed and 1 x 2 ½ seater sofa. Uncluttered and tidy. TV and DVD player etc located on top of TV unit. Remote control for both. Reverse cycle air conditioner in place (remote controlled). Foldable tray table in place for remotes / drinks etc. *Function:* Mobilised freely in this room and was observed to sit to stand from sofa with no difficulty. Able to use remotes to control temperature and home entertainment independently. Client reports using sofa bed to rest on when he first came home instead of ascending stairs to bedroom, and because it was very hot (no air con upstairs).
Dining:	*Environment:* Small dining space with large 6 seater table / chairs. Table very close to kitchen bench and client reports able to transfer his meals easily from kitchen to table. *Function:* Client is managing meals as required however reports sometimes filling then leaving plates on kitchen bench and eating while standing in lieu of taking plate to table.
Laundry:	*Environment:* small room off kitchen. Contains top loading washer and wall mounted dryer. Laundry products stored on wall shelf. *Function:* Nil issues at this time. He reports putting most items into dryer.
Backyard:	*Environment:* paved courtyard with border garden (low maintenance). Deck area with 2 steps to paved space. Rotary clothesline in place. *Function:* Has not gone into yard since returning home. Notes very messy with leaves etc and would be a significant slip hazard for him at this time. Client reports he is hoping his brother will come over and use the leaf blower to clean it up in the next few days.
Other Relevant Information: *Cognition* – Nil issues. *Pressure Care* – Nil issues *Transport* – Has been cleared to drive own automatic vehicle. Has accessible parking sticker at present.	

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ISSUES IDENTIFIED/RECOMMENDATIONS	
Problem	**Recommendation**
1. Difficulty carrying items from car to house (esp. multiple trips using both arms such as groceries) due to need for crutch use.	Following discussion client agreed that utilising the delivery service from the local supermarket and fruit shop will manage this issue in the short term.
2. Reports feel unsafe descending internal stairs, (even using crutch and banister for support).	Installation of 1 x banister style rail on wall right side ascending 930mm from step tread. Discussion re: installation - client reports he does not feel it will be required in the longer term however thinks that it would be a good thing to have installed. Client advised of local HMMS service.
3. Difficulty managing cleaning, mainly vacuuming and bilateral upper limb activities (due to need for crutch for mobility).	Client advised that he has arranged with a private cleaning agency to come and clean weekly.
4. Yard maintenance.	Client reports his brother has agreed outcome and assist with this as required.
Summary: Review of home environment post discharge from rehabilitation. Client is confident that he will continue to improve and is reluctant to make large environmental changes to his home environment however acknowledges that some changes will benefit him in the short term.	
PLAN: 1. Prepare diagrams for rail installation.	

Format used with permission.

(Calvary Health Care Occupational Therapy Department, 2011)

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Case Study: Complex

L is a 30 year old lady with Multiple Sclerosis. She has 3 children aged 7, 5 and 4. The referral was from a short term case manager requesting OT assessment and recommendations for long term management in the community. The major issue identified by the referrer was the steep steps down from the street level to the client's front door.

On receipt of the referral a ***problem sensing*** approach was undertaken using the information in the client referral, the treating OTs existing knowledge, a search on other issues at play (google, googlescholar, texts, MS AUSTRALIA website) and the following developed;

Multiple Sclerosis (MS)

The brain, spinal cord and optic nerves can be affected. The disease most commonly affects young white females living in temperate regions of the world. The cause of MS is not known - it is thought that a virus may be the trigger. There is also evidence of genetic susceptibility.

The two major forms of MS include relapsing-remitting and progressive. There is no cure, but there are treatments available to modify the course of the disease and ease some of the symptoms.

Aetiology and likely functional problems:

- Bladder dysfunction
- Bowel dysfunction
- Cognitive problems
- Depression
- Difficulty in walking (gait)
- Fatigue
- Headache
- Heat Temperature Sensitivity
- Memory
- Numbness
- Spasticity
- Swallowing
- Tremors
- Vision (MS Australia, 2012)

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As per regular OT process, an initial assessment was conducted and an analysis of this lady's functional profile was undertaken.

Client's perspective:

- Difficulty getting up and down driveway / steps / verandah due to weakness, instability, fatigue etc especially during flare-ups./
- Difficult managing taps in kitchen and bathroom
- Not keeping up with domestic duties and laundry
- Difficulty managing personal care due to bathroom layout and fatigue

Assessment Report:

Social Situation: L lives with her family in their own home in Jonestown. She has a good circle of friends and a very supportive family. She is actively involved in their church and with her children's school / day care when physically able.

J (spouse and carer) works full time. He also manages the bulk of the domestic duties, home maintenance and management, child caring (physical), shopping, waste management and some cleaning. At time of assessment it was acknowledged by both L and J that he is at high risk of carer burnout and carer stress however they were reluctant to commence formal services at this time. Information was given at time of assessment, and L undertook to follow this up if required.

As L's condition/s deteriorates, it is not unreasonable to suggest that J will either need to increase his caring role and/or consider formal services to support his family. The Attendant Care Programme (ADHC) was discussed and information given.

Home Environment:

Free standing brick home built approximately 1965? with a tile roof.

Access

Front: 43 steps down from street to front access then 3 steps up into porch and one step into house.

Back: 14 steps to back yard. Not used by client.

Internal: flat where client mobilizes.

Function;

She reports waiting for standby assistance from J or other friends before attempting the ascent to her car space near street level.

Due to the volatile nature of L's condition, her functional status varies considerable depending on a number of factors, including but limited to, the weather, humidity, amount of rest she has had in the preceding 24 hours, her general wellness, and any exacerbation of her MS.

Bathroom: Shower recess, bathtub, vanity and toilet. Client has had a fall here. Discussion with regard to modifying to an accessible bathroom- due to age of the children L and J would prefer to keep the bathtub until the youngest child is at least 6 or

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7. It is much easier for L to bath the children than supervised showering. They realize that this may not be practicable long term.

Function:

At the time of assessment L was accessing the shower recess with some difficulty due to the hob, the small size of the shower recess and the lack of support grab rails in place. The shower recess is too small to accommodate a shower stool. Due to the difficulty using this space and the falls risk, L does not shower unless J is home, and some days will not have a shower as she does not feel strong enough to manage the task in standing.

She is able to manage toiletting independently with the toilet in its current position.

She manages grooming tasks as her energy allows, in the main bathroom area using the vanity and wall storage. She is independent when she does the tasks. If she is not feeling "up to it" she may only clean her teeth and put her hair up, instead of blow drying her hair, wearing makeup etc. Depending on her level of function on the day, she may not change out of pyjamas.

Kitchen: small with through access. Client having difficulties with existing taps (placement and capstan taps). Also difficulty accessing microwave.

Function

L reports (and was observed over multiple visits) to have fluctuating mobility, as a result of impaired balance, neck and back pain, and foot pain, and fatigue. At the time of assessment she was not using any mobility aids. L reported that she was required to use a wheelchair (manual) during her last pregnancy (due to skeletal pain, not MS) however has not had an episode of needing a wheelchair since that time.

L was observed to use walls at home for occasional stability.

At the time of assessment L and J were sharing all domestic tasks, with L undertaking what her physical status allows her to on the day. L tries to manage simple meal preparation but due to the position of some storage spaces, location of microwave, and position of taps she finds it very difficult (and exhausting) to manage these tasks. Due to fatigue management issues, J tends to manage heavy laundry, bed making etc and L sorts / puts the items into the machine / takes wet washing out. J usual take items off the lines and they share the folding. The house layout lends itself to moderate to good general access to all living spaces however the benches in the laundry have hard corners that L has walked into in the past and injured herself.

L reports when she was wheelchair bound during her last pregnancy and advised OT of access issues faced at that time (primarily kitchen and bathroom).

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In line with documented MS aetiology, L experiences vast fluctuations in her function which impacts her community mobility (walking) and her driving. At the time of assessment L was still driving as per her medical guidelines. L is an active member of her local church and with her children's school when her level of function permits.

She is an avid swimmer (as a maintenance strategy to manage her AS pain and her range of motion etc) however those days she is unable to drive for example, she is unable to access the pool. This in turn leads to exacerbation in her symptoms and a cycle of deterioration. J is often required to drive L and the children to school and child care however he does work full time and is often unable to drive L to those places she would like to go during the day.

Since her condition has deteriorated, L now works from home as a book editing freelancer, as her condition allows.

Primary Issues identified;

1. Primary access – client unable to use when not well. No access for emergency egress / emergency services. Client is at high risk of falls at any time using this access point.
2. Bathroom – client is at high risk of falls accessing shower recess due to hob. If client requires personal care support in future, this bathroom is unsuitable in its current form.
3. Carer stress – J is at high risk of burnout.
4. Client having difficulty continuing to manage her work due to fatigue and pain.
5. Client socially isolated due to spouse working full time and her not being able to leave the house without assistance.
6. Client's other medical conditions being exacerbated due to client not being able to undertake her usual swimming regime due to transport problems during the day.
7. Difficulty using kitchen taps due to hand pain and reduced strength
8. Difficulty using microwave due to position and/or left hand opening door.

Recommendations;

1. Installation of a suitable access point from the street level to the house level. This will allow L and or spouse, and any visitors (including emergency services) to be able to get L to the house safely and effectively. After discussion with local HMMS Service, it was considered that a driveway is the only option. HMMS representative advised he would seek further information / opinion on this option.
2. Fabrication of a suitable pad at the base of this driveway with adequate space for a vehicle to turn around. This pad will need to be flush with the doorway base to allow access from stepless access into the home. OT recommends that a suitable awning or carport be installed to assist managing access in inclement weather, in the event that L does become wheelchair dependent, and requires assistance to transfer in and out of vehicle (including use of a wheelchair hoist on a car if necessary).
3. Raising of existing porch area to be flush with base of doorway.
4. Removal of existing doorway and replace with widest door frame that will fit into the space. This will allow L to continue to access her home if she does become wheelchair dependent (electric wheelchair and / or tilt in space wheelchair has been projected by OT).

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5. Removal of existing bathroom and replace with stepless shower recess, hand held shower and a grab rail as indicated. Bathtub to be relocated as per diagram (as consideration has been given of an immersion lifter for use to manage pain). This will be applied for through Enable if required. Relocation of toilet as indicated to enable use of shower commode and / or other transfer assistance equipment such as an over toilet aid, as rails will to be NOT viable. Walls are double brick so additional wall blocking will not be necessary.

6. Chamfer (or similar treatment) of bench tops to reduce the injury caused to L when mobilising around the kitchen.

7. Relocation of microwave and fabrication of suitable shelf (as indicated to enable use by L.

8. Removal of existing taps and faucet from wall and replace with flip mix style tap as a bench mount. OT has been advised this will require the removal of the existing sink and drainage board and replacement with a single hole and bench mounting model.

At time of assessment, L's management of her fluctuating function is to not undertake the task if she is fatigued or feels her balance is affected, or to wait under J is at home and he will assist her as required. Please note that L's function is volatile and she is not in need of assistance at all times, however she is prone to fatigue, particularly in hot or humid weather.

In the event of the recommended **access** modifications not being implemented the following may occur;

1. Client will continue to ascend and descend the existing steps, placing herself and any accompanied / carried children at very high risk of falls.

2. In the event of medical emergency client will need to be physically carried out of the home.

3. In the event the client becomes a wheelchair user, she will be effectively house bound.

In the event of the recommended **bathroom** modifications not being implemented the following may occur;

1. Client will continue to step over shower hob to shower recess that is too small to contain a shower stool. A rail will need to be installed to assist at this point in time. Should L be physically unable to step over it she will not be able to shower that day/s.

In the event of the recommended **kitchen** modifications not being implemented the following may occur;

1. L will not be able to use the microwave safely and effectively and will become dependent in simple meal preparation.

2. L will be unable to use the taps and become dependent on another to assist with hand hygiene / getting a drink etc.

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3. Significant risk of injury to abdomen and hip area, should L's volatile balance cause her to bump into the bench corner, or risk of severe head injury should she fall and hit it with her head.

Other considerations:

1. Should L require formal care support in the future, the bathroom and access in its existing form would constitute a significant OH&S risk for care workers. OT would consider that the recommendations given will support L's function and may reduce her need for waged care (Carnemolla & Bridge, 2011).

2. As briefly mentioned previously, L has had some visual disturbance as a result of her MS. OT supports L's suggestion of using black and white tiles (not a check) in the bathroom (from a colour contrast and aesthetic perspective) however would recommend a consultation with Vision Australia with regard to lighting (globe type and luxe) and luminescence effect on these tiles to reduce/prevent glare issues in the future (Arditi, 1999).

3. The couple are very concerned that their home will become 'medicalised' and highlight L's functional problems to their family and friends.

OT/HMMS representative have taken great care to keep L and J actively involved in all steps of the process and to support their input and assist with managing their concerns.

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Resources

Occupational therapists should to make use of the range of resource modalities available to them with regard to this area of clinical practice.

The following list is by no means exhaustive but may assist Occupational Therapists in the Australian context. All are easily accessible via internet search, library or through the links provided.

Resource	Description
Books:	
Bridge, C (2010). Home Modification: occupation as the basis for an effective practice in M. Curtin, M. Molineux & J. Supyk-Mellson (Eds.), Occupational Therapy and Physical Dysfunction. Enabling Occupation. (6 ed., pp. 409-429).	This chapter goes through the process of clinical reasoning, problem sensing and looking at opportunities for modifying the environment to promote function. The author takes a macro approach to the principles of environmental modification and design.
An occupational therapist's guide to home modification practice by Elizabeth Ainsworth & Desleigh de Jonge	This book assists occupational therapists in addressing the needs of consumers, including consideration of their current and future requirements, the nature and use of the home environment, understanding the technical aspects of the built environment, design approaches, and the application of a range of products and finishes to determine appropriate modification solutions.
Letts, L., Rigby, P., & Stewart, D. (Eds.). (2003). *Using environments to enable occupational performance*.	This book aims to present the theory, paradigms and models that are the basis of occupational therapy practice, and the understanding of how the environment supports occupational performance.

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Articles: after 2003	Pynoos, J., Nishita, C., & Perelma, L. (2003). Advancements in the Home Modification Field. *Journal of Housing For the Elderly, 17*(1-2), 105-116. doi: 10.1300/J081v17n01_08 Bridge, C. (2005). Considerations for using anthropometrics to determine modifications for children (pp. 4). Sydney: Home Modification Information Clearinghouse, The University of Sydney. Available from www.homemods.info. Bridge, C., & Phibbs, P. (2004). Thermostatic mixing valves. Summary Bulletin (pp. 17). Sydney: Home Modification Information Clearinghouse, The University of Sydney. Available from www.homemods.info. Seton, H., & Bridge, C. (2006). Effectiveness of grabrail orientations during the sit-to-stand transfer. Evidence Based Research *Evidence Based Research* (pp. 19). Sydney: Home Modification Information Clearinghouse, The University of Sydney. Available from www.homemods.info Hodges, L., Bridge, C., Donelly, M., & Chaudhary, K. (2007). Designing home environments for people who experience problems with cognition and who display aggressive or self-injurious behaviour. Evidence Based Research *Evidence Based Research* (pp. 28). Sydney: Home Modification Information Clearinghouse, The University of Sydney. Available from www.homemods.info. von Behrens, T. (2007). Understanding Aboriginal Australians for more effective provision of home modification services. Summary Bulletin. Sydney: Home Modification Information Clearinghouse, The University of Sydney. Available at www.homemods.info

Jones, A., Jonge, D. d., & Phillips, R. (2008). The role of home maintenance and modification services in achieving health, community care and housing outcomes in later life. (Vol. AHURI Final Report No. 123): Australian Housing and Urban Research Institute

Harris, S., James, E., & Snow, P. (2008). Predischarge occupational therapy home assessment visits: Towards an evidence base. *Australian Occupational Therapy Journal, 55*(2), 85-95. doi: 10.1111/j.1440-1630.2007.00684.x

Stark, S., Landsbaum, A., Palmer, J. L., Somerville, E. K., & Morris, J. C. (2009). Client-centred home modifications improve daily activity performance of older adults. *Canadian journal of occupational therapy. Revue canadienne d'ergotherapie, 76 Spec No*, 235-245.

Jung, Y. M., & Millikan, L. (2009). Rural home modification: Overview and policy issues in rural and regional Australia (pp. 24). Sydney: Home Modification Information Clearinghouse, The University of New South Wales. Available from www.homemods.info

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Occupational Therapist's Fact Sheet Series. (2009-2010). The NSW Home Modification and Maintenance State Council Inc. (NSWHMMS)	These resources have focused on fact sheets; pro formas for minor home modifications; form and checklist for major home modifications; templates and samples of written and diagrammatical specifications for major bathroom modifications; and generic policies and procedures for the evaluation of minor and major home modifications. According to the NSW Home Modification and maintenance State Council all resources developed: • reflect best practice for OTs when prescribing home modifications; • have been reviewed and approved by the OT Reference Groups established by State Council; and • are applicable to all OTs - regardless of level of experience in prescribing home modifications • and can be sourced from http://www.nswhmms.org.au/information-occupational-therapists
Consumer Factsheets from HMinfo:	• Arranging Home Modifications in Queensland • Arranging Home Modifications in NSW • Arranging Home Modifications in Western Australia • Arranging Home Modifications in Tasmania • Arranging Home Modifications in the Northern Territory • Arranging Home Modifications in the Australian Capital Territory • Arranging Home Modifications in South Australia • Arranging Home Modifications in Victoria All HMinfo publications are available for download free of charge from www.homemods.info

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Standards:	
Australian Standard™ 1428 Design for access and mobility • 1428.1 Part 1: General requirements for access — New building work (Standards Australia, 2001) • 1428.2 Part 2: Enhanced and additional requirements — Buildings and facilities (Standards Australia, 1992b) • 1428.3 Part 3: Requirements for children and adolescents with physical disabilities (Standards Australia, 1992a) • 1428.4 Part 4: Tactile ground surface indicators for orientation of people with vision impairment. (Standards Australia, 2002). • AS 1428.5-2010 Design for access and mobility - Communication for people who are deaf or hearing impaired. • AS 4299	This Standard specifies the design requirements applicable to new building work, excluding work to private residences, to provide access for people with disabilities. Particular attention is given to access ways and circulation spaces and consistent linkages suitable for use by people who use wheelchairs, and access and facilities for people with ambulatory disabilities and for people with sensory disabilities (Standards Australia, 2001). This publication is available for purchase from SAI Global. Adaptable Housing Standard – this standard presents the objectives and principles of adaptable housing and provides guidelines on planning and design. Adaptable housing is the basis for the development of the accommodation needs of users of all ages and abilities by making provision for future building modifications at minimum cost and disruption to the inhabitants. Includes in Appendix A a checklist for certification of housing units as Adaptable house class A, B or C.

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Forums:	An Internet forum, or message board, is an online discussion site where people can hold conversations in the form of posted messages. Forums have a specific set of jargon associated with them; e.g. a single conversation is called a "thread". Depending on the forum's settings, users can be anonymous or have to register with the forum and then subsequently log in order to post messages. On most forums, users do not have to log in to read existing messages. (Wikipedia, 2011d)
Electronic discussion groups	An **electronic mailing list** is a special usage of email that allows for widespread distribution of information to many Internet users. It is similar to a traditional mailing list — a list of names and addresses — as might be kept by an organization for sending publications to its members or customers, but typically refers to four things — a list of email addresses, the people ("subscribers") receiving mail at those addresses, the publications (email messages) sent to those addresses, and a *reflector*, which is a single email address that, when designated as the recipient of a message, will send a copy of that message to all of the subscribers. (Wikipedia, 2011b)
"The Home Mods List Serv"	This occupational therapist only email discussion group was set up by the University of Queensland and moderated by Desleigh de Jonge. In 2012 The Home Modification Information Clearinghouse at UNSW began managing this project. Occupational therapists need to request access by going to https://www.lists.unsw.edu.au/mailman/listinfo/homemodot-shrs and providing some evidence that they are an occupational therapist, such as their registration number.

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Australian Websites:	
www.homemods.info	Housed at the faculty of Built Environment at the University of New South Wales, homemods.info is the sole Australian based online resource for occupational therapists, industry and consumers in the area of environmental modifications.
www.ilcaustralia.org	The Independent Living Centres Australia (ILCA) is a collective organisation with members in each Australian states and the ACT. The ILCA's role is to advance a federal agenda on issues and needs at a national level. The ILCA also provides information and advice to government and policymakers and raises awareness of the role assistive technology plays in maintaining health and wellbeing in the Australian community.
International Websites:	
www.homemods.org	***Homemods.org*** is a service of the *Fall Prevention Center of Excellence*, funded by the *Archstone Foundation*. The web site was originally created by the National Resource Center on Supportive Housing and Home Modification, with support from the Archstone Foundation. It is headquartered at the University of Southern California Andrus Gerontology Center.
www.cae.org.uk	The Centre for Accessible Environments (CAE) is the UK's leading authority on inclusive design. Their aim to help secure a built environment that is usable by everyone, including disabled and older people. CAE pioneered the provision of access guidance for building designers based on collaborative research with disabled people. CAE is a leader in developing the case for designing for disabled people in the context of mainstream inclusive design.

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Canada Mortgage & Housing Corporation: Accessible Housing by Design:	Canada Mortgage and Housing Corporation (CMHC) is Canada's national housing agency. They work with community organizations, the private sector, non-profit agencies and government to help create innovative solutions to today's housing challenges, anticipate tomorrow's needs, and improve the quality of life for all Canadians. CMHC helps Canadians from all walks of life access quality, affordable homes with: • Funding for renovations, emergency repairs and home adaptations to preserve the supply of low-cost housing, and benefit low-income Canadians; • Consultation, support and financial tools to help communities sponsor and develop their own affordable housing projects; • Funding to create safe, affordable housing and support those individuals whose needs are not met through the marketplace; and • Funding to supply and renovate housing for Aboriginal Canadians both on- and off-reserve
Centre for Inclusive Design & Environmental Access (IDEA Centre):	The IDeA Center practices human centred design through research, development, service, dissemination and educational activities. The primary goal of the Centre is to produce knowledge and tools that will increase social participation of groups like people with disabilities and the older generation, who have been marginalized by traditional design practices. Their research activities include systematic reviews, human factors research, usability studies in the field and laboratory, survey research, focus groups and ethnographic studies. The development activities include architectural design, product development, information technology resources and organizational development activities. The Centre produces many dissemination products in both traditional and digital forms and engages in public, university and continuing education initiatives.

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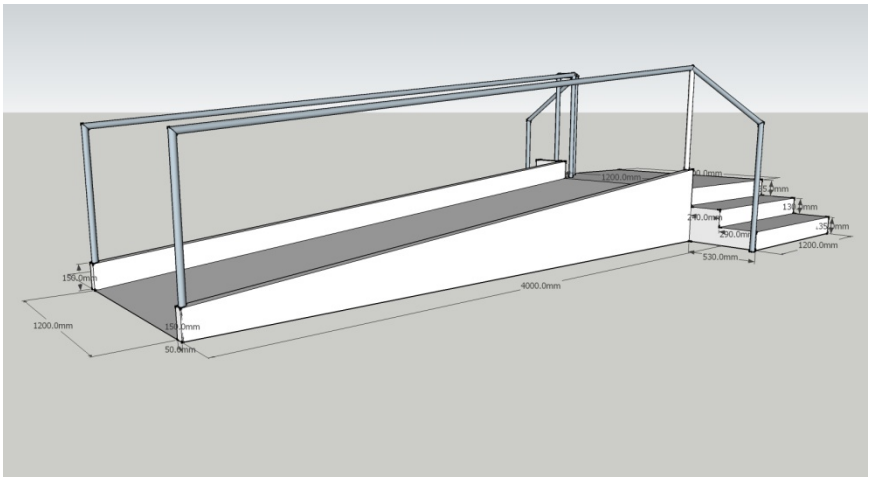
Software:	CAD - Computer-aided design (CAD), also known as computer-aided design and drafting (CADD), is the use of computer technology for the process of design and design-documentation. Computer Aided Drafting describes the process of drafting with a computer. CAD/CADD software, or environments, provides the user with input-tools for the purpose of streamlining design processes; drafting, documentation, and manufacturing processes. As in the manual drafting of technical and engineering drawings, the output of CAD must convey information, such as materials, processes, dimensions, and tolerances, according to application-specific conventions. (Wikipedia, 2011a) The CAD programs below are only four of the many available however these four were identified (anecdotally) by occupational therapists as being useful for drawing environmental modifications.
Google SketchUp (GSU)	SketchUp is a 3D modelling program marketed by Google and designed for architectural, civil, and mechanical engineers as well as filmmakers, game developers, and related professions. The program, which is designed for ease of use, allows placement of models within Google Earth (Wikipedia, 2011c). GSU is a free, web based computer aided drafting program that works to draw diagrams to scale, and gives the user access to a free warehouse of assets that have been developed by other users of the product. This program allows for direct importing of photographs to assist illustrate the proposed modifications. 

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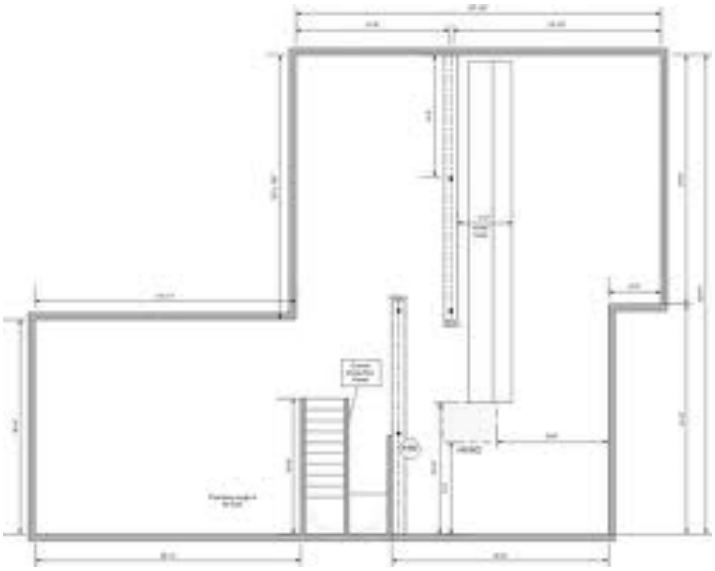
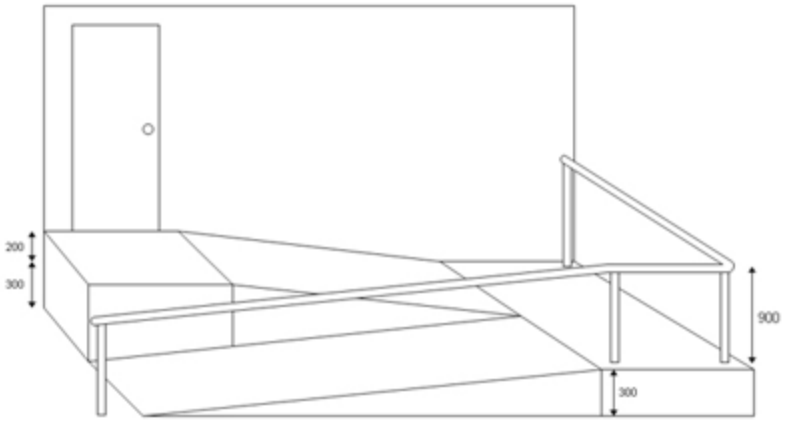
Microsoft Visio	Microsoft Visio (formerly known as Microsoft Office Visio), is a commercial diagramming program for Microsoft Windows that uses vector graphics to create diagrams. The current version, Microsoft Visio 2010 for Windows, is available in three editions: Standard, Professional and Premium. Visio is not developed for the Mac OS X or Linux operating systems. Due to a proprietary Visio file format, few Mac OS X or Linux diagramming programs can read Visio files. Mac users use Omnigraffle Pro on the Mac to read and write Visio files (Wikipedia, 2011e). 

OT Draw	This software was developed by an Australian occupational therapist specifically for occupational therapists using Microsoft Windows XP with SP2 or later. This is a costed piece of software and can be purchased online. http://otdraw.com/about.aspx The diagrams are simple and easy to add into reports.  Sample from www.otdraw.com

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Mentoring and Peer Support

OT AUSTRALIA is able to link their members with state based mentors and experts in this field. Most state based offices of OT AUSTRALIA conduct regular training in the assessment and prescription of environmental modifications. The Independent Living Centres in each state also offer training in this area.

State	OT AUSTRALIA Offices	ILC branches
Australian Capital Territory	act@ausot.com.au Ph: 1300 68 2878. Fax: 03 9416 1421 C/- 6/340 Gore St. Fitzroy VIC 3065 Professional development site	The Independent Living Centre, ACT Phone: 02 6205 1900 Fax: 02 6205 1906 Email: ilcact@act.gov.au Web: http://www.health.act.gov.au/ilc Street Address: 24 Parkinson Street, Weston Australian Capital Territory 2611 Australia
New South Wales	info@otnsw.com.au Ph: 02 9648 3225 Fax: 02 9648 0023 20 / 8 Avenue of the Americas Newington NSW 2127 Professional development site	The Independent Living Centre, NSW Phone: 02 9912 5800 1300 885 886 (w/in NSW only) Fax: 02 88149656 Email: help@ilcnsw.asn.au Web: http://www.ilcnsw.asn.au Street Address: Shop 4019, Westpoint, 17 Patrick St, Blacktown, NSW

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Northern Territory	nt@ausot.com.au Ph: 1300 68 2878 Fax: 03 9416 1421 C/- 6/340 Gore St. Fitzroy VIC 3065 Professional development site	
Queensland	info@otqld.org.au Ph: 07 3397 6744 Fax: 07 3397 6599 8 / 416 Logan Road Stones Corner QLD 4120 Professional development site	**LifeTec QLD (Independent Living Centre)** **Toll free:** 1300 885 886 (QLD only) **Email:** mail@lifetec.org.au **Opening hours:** Monday to Friday, 8.30am to 4.30pm and Saturday, 9.00am to 2.00pm **Centre locations:** Brisbane: Level One, Reading Newmarket Cnr Newmarket & Enogerra Rds PO Box 3241 Newmarket QLD 4051
South Australia	admin@otsa.org.au Ph: 08 8342 0022 Fax: 08 8342 0099 12 / 60 North East Road Walkerville SA 5081 Professional development site	The Independent Living Centre of South Australia Phone: 08 8266 5260 1300 885 886 (SA / NT callers only) Fax: 08 8266 5263 Email: ilcsa@dfc.sa.gov.au Web: http://www.disability.sa.gov.au Street Address: 11 Blacks Road, Gilles Plains South Australia 5086 Australia

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Tasmania	tas@ausot.com.au Ph: 1300 68 2878 Fax: 03 9416 1421 C/- 6/340 Gore St. Fitzroy VIC 3065 Professional development site	The Independent Living Centre Tasmania Phone: 03 6334 5899 Fax: 03 6334 0045 Email: ilc@ilctas.asn.au Web: http://www.ilctas.asn.au Street Address: 46 Canning Street, Launceston Tasmania 7250 Australia
Victoria	info@otaus.com.au Ph: 03 9481 6866 Fax: 03 9481 6844 4 / 430 Rae Street North Fitzroy Vic 3068 Professional development site	The Independent Living Centre, Victoria Phone: 03 9362 6111 1300 885 886 (w/in Vic or TTY: 03 9314 9001 Fax: 03 9314 9825 Email: ilc@yooralla.com.au Web: www.yooralla.com.au Street Address: 705 Princes Hwy, Brooklyn Victoria 3025 Australia

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Western Australia	wa@otaus.com.au Ph: 1300 68 2878 Fax: 03 9416 1421 C/- 6/340 Gore St. Fitzroy VIC 3065 Professional development site	The Independent Living Centre of Western Australia Phone: 08 9381 0600 1300 885 886 (w/in WA or Western Australia) Fax: 08 9381 0611 Email: enquiries@ilc.com.au Web: http://www.ilc.com.au Street Address: The Niche, Suite A, 11 Aberdare Rd, Nedlands, Western Australia 6009 Australia

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Appendix 1

Summary of state HACC funded home modifications services.

Note this information was correct at time of publishing.

State / Territory		
Australian Capital Territory	Is there a home modification service in this state?	Yes
	What is its title?	HomeHelp
	Is there a distinction between minor and major mods?	No
	What is the eligibility for accessing the service?	HACC eligibility
	Is there a contribution from the clients?	Yes - The amount of the contribution is established by the HHS Service Administrator and takes into account the client's capacity to pay based on income and other factors that may impact the client's financial position. Agreement on an appropriate client contribution is required before any work can commence and usually a deposit will also be required.
	Is there a website with information on it?	http://health.act.gov.au/health-services/community-health/community-health-services/home-support/community-and-at-home-support http://www.homehelp.org.au/ http://www.homehelp.org.au/images/files/Promotional_Material/client_service_handbook.pdf

New South Wales	Is there are home mods service in this state?	Yes
	What is its title?	The NSW Home Modification and Maintenance Service.
	Is there a distinction between minor and major mods?	Home & Community Care NSW fund modifications in all areas of NSW that are serviced by a local Level 1 Home Modification and Maintenance Service (HMMS). Complex modifications are covered by Level 2 and Level 3 Modifications Services and these have specific reporting requirements. Levels are distinguished by overall cost of the modification. As of July 1st 2012, all home modification requests for HACC eligible (regardless of source) will go through the Community Care Access Point (CCAP). Referral to the CCAP can be made by Phone: 1300 731 556 Fax: 02 9407 7778 Email: communitycare@facs.nsw.gov.au Electronically though the HS Net system. New policies and procedures, and document templates are likely to be rolled out after this time. Any new resources will be posted on the www.homemods.info website in the Occupational Therapy Resources section.

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	What is the eligibility for accessing the service?	Potential clients need to be eligible for HACC services to access this subsidized modification and maintenance program, and need to be referred by an occupational therapist.
	Is there a contribution from the clients?	Yes but clients are not denied service due to an inability to pay. Any financial hardship consideration needs to be discussed with the individual HMMS service on a case by case basis. A new fees policy will be released on July 1st 2012 And should be available on the HACC website from this date.
	Is there a website with information on it?	www.nswhmms.org.au http://www.adhc.nsw.gov.au/__data/assets/file/0008/228194/HomeModificationGuidelines.pdf

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Queensland	Is there are home mods service in this state?	Yes. Home and Community Care Home Modification Services may provide information, assessment, project management and/or financial assistance for larger home modifications, such as ramps and bathroom adaptations. The range of services provided may include: • initial home assessment • occupational therapy assessment • arranging the preparation of building plans and specifications • cost estimation • project coordination of building modification • post modification assessment • referral and information.
	What is its title?	Home and Community Care Home Modification Services
	Is there a distinction between minor and major mods?	no
	What is the eligibility for accessing the service?	HACC eligibility - frail, aged and younger people with a disability and their carers.

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	Is there a contribution from the clients?	Yes but check with the local service for their specific policy. Brisbane North (07) 3254 0355 Brisbane South (07) 3240 2776 Barcaldine (07) 4651 2187 Charleville (07) 4654 1307 Darling Downs (07) 4639 3821 Far North Queensland (07) 4039 9780 Ipswich (07) 3810 6661 Maryborough (07) 4123 2234

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		Sunshine Coast (07) 5476 6130 Townsville (07) 4727 9712 Central Queensland (07) 4922 3301 Mackay and Hinterland (07) 4963 2740 Gold Coast (07) 5594 7890
	Is there a website with information on it?	Yes http://www.qld.gov.au/community/getting-support-health-social-issue/home-modifcations/

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South Australia	Is there are home mods service in this state?	Yes
	What is its title?	There are a number of programs depending on client needs; **Home Assist** – Please see "Is there a contribution from the clients?" row below for links to each local council's information as available at time of publication. **Equipment Program** - DCSI (Department for Communities and Social Inclusion) oversees a state-side Equipment Program available to children and adults who receive services from Disability Services, Domiciliary Care, Novita Children's Service and Minda Inc. See the document Equipment Program Information for consumers for further information. Country ILEP provides major home modifications for residents of South Australia over the age of 65 and living in rural and remote regions.
	Is there a distinction between minor and major mods?	Each provider has different criteria so check with the relevant body
	What is the eligibility for accessing the service?	HACC eligibility

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	Is there a contribution from the clients?	Yes but this varies between councils. For specific information please click the relevant area Adelaide Hills Council Alexandrina Council The Barossa Council City of Burnside - Campbelltown City Council City of Charles Sturt The Coorong District Council Town of Gawler District Council of Grant City of Holdfast Bay (TBA) Light Regional Council Mid Murray Council City of Mitcham City of Onkaparinga City of Salisbury

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		Town of Walkerville
	Is there a website with information on it?	For Adults with disability: http://www.sa.gov.au/subject/Community+Support/Disability/Adults+with+disability/Equipment+and+home+modifications/Home+modifications For Adults or children receiving services from Novita Children's Service, Disability Services, Domiciliary Care and Minda Inc. : Equipment Program Information for consumers

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Tasmania	Is there are home mods service in this state?	Yes
	What is its title?	Each district has its own service provider. South: • Community Based Support South: ph: 03 6208 6600. http://cbssouth.com.au/services/home_mod • Kings meadows Handyman. Try this phone number (Kings meadows community health): (03) 6336 5155 NorthWest • Family Based Care Association North West Inc - Home Maintenance Advisory Service http://www.dhhs.tas.gov.au/service_information/hacc/home_maintenance_advisory_service • Fusion http://www.dhhs.tas.gov.au/service_information/hacc/fusion_australia_home_modifications_and_maintenance
	Is there a distinction between minor and major mods?	They will install Bathroom and toilet grab rails Hand held showers Ramps Exterior and interior hand rails Remove baths and showers recesses and replace with accessible showers Widen doorways

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		Rehang swinging doors Accessible pathways for wheelchair users Kitchen modifications to enable access.
	What is the eligibility for accessing the service?	HACC eligibility
	Is there a contribution from the clients?	Yes
	Is there a website with information on it?	No.

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Victoria	Is there are home mods service in this state?	Yes
	What is its title?	Statewide Equipment Program, Aids & Equipment Program. In Victoria, equipment and modifications are managed by the same centre.
	Is there a distinction between minor and major mods?	No
	What is the eligibility for accessing the service?	To be eligible for the Program the client must: • have a permanent or long term disability/or are frail aged; and are living independently in the community, • require aids & equipment or home modifications from the aids availability list on a permanent or long-term basis. And • are a permanent Victorian resident • or they are on a Permanent Protection Visa – resolution of status (RoS) (subclass 851) or • they are an asylum seeker Clients are not eligible for home modification funding under this scheme if they live in public housing – mods must be requested via their local Department of Human Services Housing Office. Clients residing in supported accommodation or community housing may also be ineligible for funding, prescribers should check client

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		eligibility with SWEP prior to lodging an application Please note: the client may not be eligible if: • they live in a Commonwealth funded residential aged care facility • they receive aids and equipment through other government funded programs, such as WorkCover, Transport Accident Commission (TAC) or the Department of Veteran Affairs (DVA) • they are able to claim the cost through a private health insurance provider • they are an inpatient of a public or private hospital or • they have been discharged from a public hospital within the past 30 days.
	Is there a contribution from the clients?	Yes – however a maximum subsidy is $4400 per person per lifetime including GST
	Is there a website with information on it?	This is a link to the Aids & Equipment Program Guidelines http://www.dhs.vic.gov.au/__data/assets/pdf_file/0008/596924/aepbrochure_0710.pdf Further information is also available from http://swep.bhs.org.au/aep

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Western Australia	Is there are home mods service in this state?	Yes
	What is its title?	Technology Assisting Disability WA
	Is there a distinction between minor and major mods?	Home Modification services include: Minor structural changes to clients' homes so optimum independence can be gained and move safely about the house and garden. Modification examples include: • toilets, bathrooms and kitchens • ramps and floor levelling • grab rails, handrails, shower rails • living areas to facilitate access and transfer • alterations to surfaces to facilitate transfers and eliminate unnecessary lifting • accessible garden beds
	What is the eligibility for accessing the service?	Commonwealth Respite and Carelink Centres (CRCC) will now be the only service determining who is eligible for HACC services (not individual agencies like TADWA). This means TADWA will refer your details (with your permission) to this service. If their screening determines you are eligible (basically needing some assistance to remain independent in your home), then they will forward this onto the new Regional Assessment Services (RAS) who will contact you to do a face to face assessment of your needs. They will know that you have been referred by TADWA, and they may mention other HACC services

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		that you could also access. Once your Assessment is complete we get your details and we will get back to you and arrange the details of the services that you want from TADWA. For more information about HACC services follow the link to the HACC Website www.health.wa.gov.au/hacc/home/ For all HACC Services throughout WA contact the Commonwealth Carelink Centre 1800 052 222.
	Is there a contribution from the clients?	
	Is there a website with information on it?	http://www.tadwa.org.au/default.aspx?cntID=1

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Appendix 2

Community Housing

The following table has some information about the community housing peak bodies in each state and territory and links to lists of providers where available.

Note this information was correct at time of publishing.

State		Link to information
Australian Capital Territory		The ACT Government currently funds five community housing organisations, these are: • Havelock Housing Association (HHA); • Environmental Collective Housing Organisation (ECHO); • Capital Community Housing (CCH); • Billabong Aboriginal Development Corporation; and • Tamil Senior Citizens Association. For more information go to http://www.dhcs.act.gov.au/hcs/services/community_housing
New South Wales		http://www.communityhousing.org.au/ NSW Community Housing Providers contact list http://www.housingpathways.nsw.gov.au/Contact+us/Community+Housing+Providers+Contact+List.htm

Northern Territory		http://www.housing.nt.gov.au/grants_and_funding/community_housing_program
Queensland		The 'One Social Housing System is the direction for community and local government-managed housing. One Social Housing system sets; • Common eligibility criteria for social housing assistance • Uses one application form • One wait list • One allocations policy and system • The provision of social housing for those with the greatest need for the duration of need. Factsheet on this type of housing. http://www.communities.qld.gov.au/housing/housing-services/social-housing/fact-sheets-social-housing
South Australia		Community housing provides a home to approximately over 7,300 people in South Australia, one-third of them children, with over 4,500 dwellings across the State - more if you include a number of properties that are head-leased by housing associations. Almost 70% of the Community Housing population reside in housing association dwellings. http://www.chcsa.org.au/

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Tasmania		In Tasmania, there are approximately 1,000 homes provided by over fifty different organisations. About half of the homes are funded by Housing Tasmania and are for people on low to moderate incomes who meet broad public housing eligibility criteria. The majority of community housing providers house specific client groups such as older people and people with disabilities. About one third of providers are located in rural and regional areas and about half provide independent living units for older people. The majority are small organisations that provide between two and twenty homes. http://www.dhhs.tas.gov.au/service_information/related_context_pages/community_housing
Victoria		The Community Housing Federation of Victoria represents 73 community housing organisations, from the industry's largest organisations that own and/or operate thousands of properties housing many thousands of tenants, to the smallest one or two dwelling operations. The larger organisations (eight Housing Associations and 31 Registered Housing Providers) are partially funded by the Federal and State Governments and have taken on responsibility for proactively growing the State's stock of community homes. The link below leads to an interactive map that can assist with locating the community housing provider in the relevant geographical area. http://www.chfv.org.au/find-housing/
Western Australia		http://www.communityhousing.com.au/

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Appendix 3

Aboriginal Housing

The following table has some information about the Aboriginal housing peak bodies in each state and territory and links to lists of providers where available.

Note this information was correct at time of publishing.

State		Link to information
Australian Capital Territory		
New South Wales		There is a distinct, Indigenous-controlled, housing system. While much of this housing is managed through the NSW Department of Housing, there is also significant number Aboriginal community based housing providers. This sector is administered by the Aboriginal Housing Office. For a list of Aboriginal Housing providers in your area click here
Northern Territory		Through the Indigenous Housing Assistance Services Program, assistance is provided to Indigenous people in urban centres to: • Obtain and maintain their public housing tenancies • Assist them into home ownership through HOMESTART NT The program is jointly funded by the Department and the Indigenous Housing Authority of the Northern Territory (IHANT). Aboriginal organisations are contracted to offer and manage these services independently of Territory Housing, whilst the Housing Services Branch has the responsibility of their oversight as Program Manager. http://www.territoryhousing.nt.gov.au/public_housin

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		g/indigenous_housing_assistance
Queensland		Indigenous community housing organisations, which were previously funded under the Australian Government's Community Housing and Infrastructure Program, are invited to become part of Queensland's one social housing system. Organisations that become registered housing providers and transition properties to the one social housing system, will be eligible for upgrades to their properties to align them to a public housing standard. A dedicated team established within Indigenous Housing and Homelessness Programs is working with organisations who have entered into new arrangements with the department. Work is underway to upgrade properties for Indigenous tenants in various locations across the State, including St George, Cunnamulla, Coen, Tully and Longreach. Enquiries can be made by contacting the Indigenous Community Housing Transition Program, Department of Communities, on 07 3247 6397 or email CHIPchange@communities.qld.gov.au.

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South Australia		In South Australia Aboriginal public housing offers tenants: • affordable rents for low income households • long term accommodation • support, information and referral to other organisations and services. http://www.sa.gov.au/subject/Housing,+property+and+land/Customer+entry+points+and+contacts/Housing+SA+customer+entry+point/Waiting+list/Public+housing+options+for+Aboriginal+and+Torres+Strait+Islander+persons#Aboriginal_public_housing
Tasmania		Aboriginal Housing Services Tasmania (AHST) provides secure, appropriate and affordable rental housing to Aboriginal and Torres Strait Islander People in Tasmania. Aboriginal Housing Services Tasmania (AHST) has approximately 330 homes throughout Tasmania. Aboriginal Housing Services is jointly managed by three Regional Aboriginal Tenancy Advisory Panels and Housing Tasmania. The role of Advisory Panels is to consider applications, assess whether or not applicants are eligible for Aboriginal Rental Housing and allocate houses to applicants who are deemed eligible. http://www.dhhs.tas.gov.au/service_information/services_files/aboriginal_housing_service_tasmania
Victoria		Aboriginal Housing Victoria www.ahvic.org.au

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Western Australia		The Department of Housing manages the housing in Aboriginal communities in the East Kimberley, West Kimberley, Mid-West/Gascoyne and Halls Creek. Regional Service Providers are engaged to manage housing in the East Kimberley, Derby, Fitzroy Crossing, Goldfields, Ngaanyatjarra Lands. Housing Officers are located either within the community or at the closest Department of Housing office or Regional Service Provider.

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Appendix 4

Public Housing

The following table has some information about the public housing bodies in each state and territory and links to lists of providers where available.

Note this information was correct at time of publishing.

State	Public Housing Body	Link to policy information
Australian Capital Territory	Housing & Community Services ACT	http://www.dhcs.act.gov.au/hcs http://www.dhcs.act.gov.au/hcs/contact_us
New South Wales	Housing NSW and Aboriginal Housing Office	http://www.housing.nsw.gov.au/Living+in+Public+Housing/Maintenance+and+Home+Improvements/Modifications+for+people+with+disabilities+or+the+elderly.htm List of Housing NSW offices http://www.housingpathways.nsw.gov.au/Contact+us/List+of+Public+Housing+Offices.htm List of relevant forms for Housing NSW http://www.housingpathways.nsw.gov.au/Additional+Information/Forms.htm
Northern Territory	Housing NT	Seniors Housing http://www.territoryhousing.nt.gov.au/seniors_housing

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Queensland	Housing Services	http://www.communities.qld.gov.au/housing/housing-services/social-housing
South Australia	Housing SA	http://www.sa.gov.au/subject/Housing,+property+and+land/Renting+and+letting/Renting+public+housing+in+South+Australia
Tasmania	TasHousing	
Victoria	Department of Human Services – Housing Department	http://www.dhs.vic.gov.au/for-individuals/housing-and-accommodation/public-housing
Western Australia	Department of Housing WA	http://www.housing.wa.gov.au/Pages/default.aspx

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