



Universal Design – in the House & in the Street

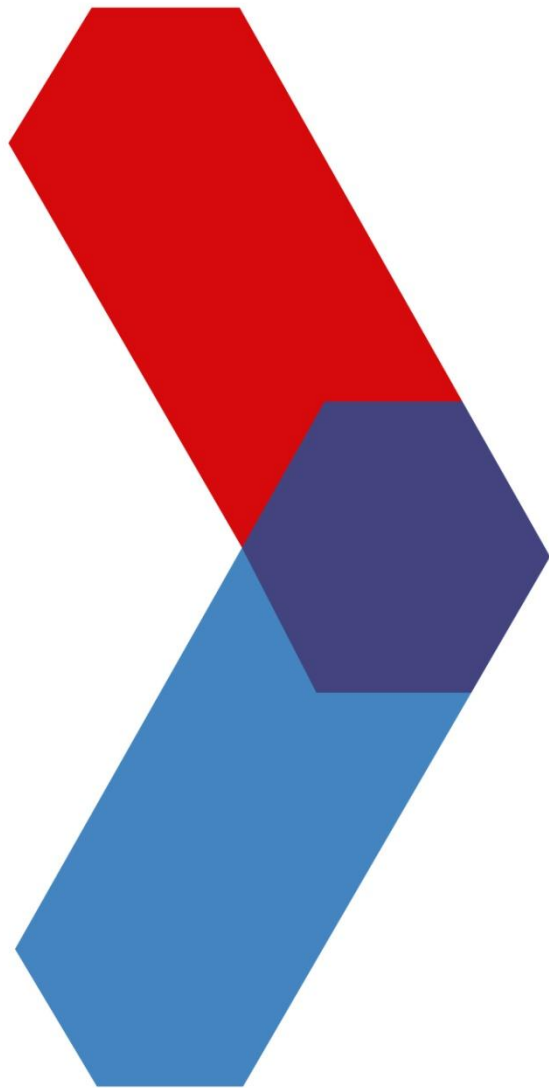
Fionnuala Rogerson FRIAI

Director, UIA Region 1, Architecture for All Work Programme

Colloquium: **Zorg in het huis in de straat**

Brussels: 10 February 2014

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Inclusive Housing?

Universal Design?

Sustainable Cities?

Places where people **want** to live
both now and in the future

Where quality of place equals
quality of life

Demographic Context



By 2020

**15% of the world's population
will be over 65**

By 2040

**25% of the European population
will be over 65**

By 2050

**global population over 85 will have
increased fivefold to 220 million**



**1 in 5 children born today in western Europe will live
to be 100**

**Between 10 & 20% of the world population have a
disability**

From Access to Inclusion



Not just about the dwelling

Places for living must :

- Be well located, with access to transport, facilities and amenities
- Integrate with neighbourhoods & communities
- Be quality housing with good space standards
- Be adaptable at minimum cost
- Support people to remain independent & well
- Facilitate “Care in the Community”

Inclusive places for living



Also must be:

- Safe and secure
- Affordable
- Durable – min. maintenance
- Resource efficient
- Value for money

What older people want ⁽¹⁾



- Safe neighbourhoods
- Access to transport, to facilities, to amenities, to green & private open spaces
- Places to socialise & exercise
- Well designed homes – adaptable & flexible
- Space – for family, carers, & storage
- Ease of Use – WC & bathroom
- Low maintenance & Affordable to heat
- Choice

(1) UK Housing & Older People Development Group
Photo: bmsk Austria

Choice, consultation & support



- **Importance of choice**
- **Choice that reflects lifestyle & circumstances**
 - to remain safely at home
 - near friends & family
- **Importance of Information**
- **User Consultation**
- **Early Planning**
- **Financial Support**

For planners & housing providers



- Clear policies and strategies
- Quality standards & benchmarks (beyond minimum standards)
- User involvement
- Incentives
- Controls
- Independent evaluation, monitoring and review

Towards Inclusive Sustainable Communities

Some international examples

Germany

WIR wohnen anders, Dortmund



Intergenerational collective housing

Post + Welters Architekten & Stadtplaner



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WIR wohnen anders



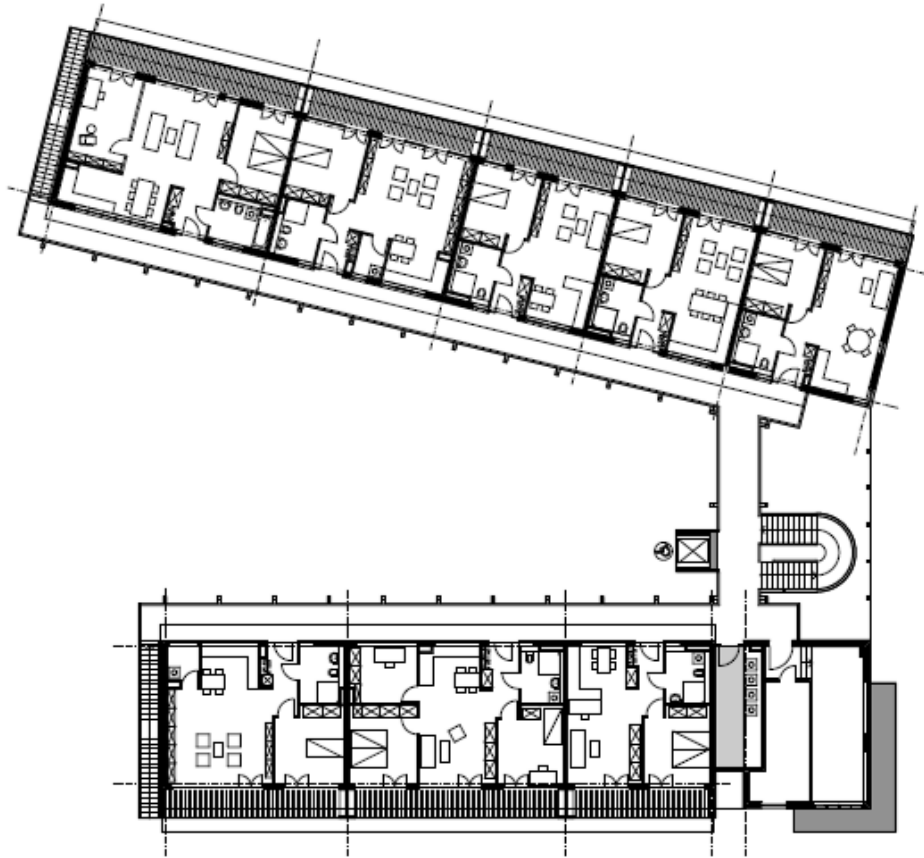
Concept:
A village within a city
A neighbourhood for old & young

**Low energy & accessible
Spaces to meet & socialise**



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WIR wohnen anders



25 rental apartments of varying types and sizes



WIR wohnen anders



**Gently graded
slopes
Slip resistant
steps
Level thresholds
and doors both
wide and high**



WIR wohnen anders



Clear orientation
Good circulation spaces
Various sizes & types of apartments



WIR wohnen anders



**Choice of layouts with
bath or walk-in shower**



WIR wohnen anders



Carefully detailed for all ages in consultation with the tenants



WIR wohnen anders



Denmark

8 House

8 House aims to be a complete neighbourhood with apartments & townhouses stacked over business, childcare & recreation facilities. Each dwelling, with its own garden or balcony can be accessed by bicycle via a gentle ramp or by stairs or lift



BIG - Bjarke Ingels Group

8 House



The ramp provides excellent opportunity for social contact & exercise

8 House



The small gardens along the ramp are well used for sitting, bikes, barbeques and children's play



8 House



FOTO af Mockup



80/ BLIPKE IDEAS GROUP, PERKESBRØDE 550, DK-2200 COPENHAGEN N

13

The architects worked with the Danish Association of Disabled People and a mock-up of the ramp was built to ensure it would be wheelchair accessible

Netherlands



Humanitas - Bergweg



Apartments for Life

- Clearly articulated philosophy
- “A place of your own”
- Village Square with services & facilities open to the neighbourhood
- Mixed community – social, cultural, age, health & tenure
- Separate arrangements for housing and care

Austria



Options:

- Independent active living
- Hotel type living
- Living with care

Bad Vöslau

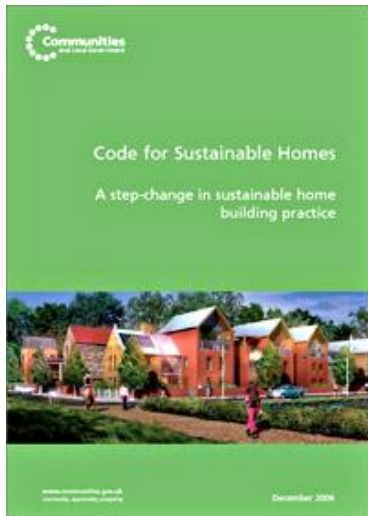


Social Solidarity Model

Independent living with support
Where residents can contribute to
the cost of their accommodation
and future care through voluntary
work in the centre.

Apartments of 31 – 56m² cost
approx. €150 per month plus
approx. €60 for care support





United Kingdom

- 2008 **Lifetime Homes Lifetime Neighbourhoods** National Strategy for Housing in an Ageing Society
- All new housing to Lifetime Homes Standards (LHS) by 2013
- All public housing by 2011
- LHS mandatory part of “Code for Sustainable Homes”
- Regional & Local Plans to include for ageing & accessible transport systems and public realm
- Reconnecting Housing & Health Care - “Putting People First”

Bathroom planned
to give side access
to WC and bath

Provision for a future
stair lift

Identified space
for future platform lift
to bedroom

Low window sills

Walls able to take
adaptations

Identified space
for temporary
entrance level bed

Living or family room at the
entrance level

Distance from the car parking
space kept to a minimum

Easy route for a hoist from
bedroom to bathroom

Sockets, controls, etc.
at a convenient height

Accessible entrance level WC
(opportunity for shower later in
3 bed or larger homes)

Width of doors and hall
allow wheelchair access

Turning circles for wheelchair
in ground-floor living rooms

Accessible threshold
covered and lit

Parking space
capable of widening
to 3300mm

Level or gently sloping
approach to the Lifetime
Home

Lifetime Homes Diagram

Habinteg UK

UK

Building for Life Criteria

Environment & Community

- Proximity to facilities
- Mix of accommodation & tenure
- Access to public transport
- Environmental Impact

Character

- Buildings, landscape, topography
- Distinctive character
- Ease of orientation
- Well defined street & building layout

Streets, Parking, Pedestrianisation

- Priority of buildings over streets & cars
- Pedestrian & cycle friendly streets
- Well integrated parking
- Public spaces overlooked for safety

Design & Construction

- Architectural quality
- Easily adapted & flexible layouts
- Good management
- Beyond minimum standards



**Developed by
CABE & HBF**

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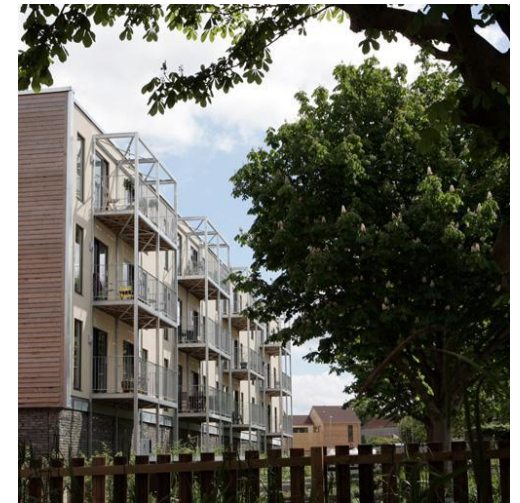
Building for Life Awards



2009 Award winner

**Lime Tree Square, Somerset
Fielden Clegg Bradley Architects**

- **Redefines the square & the street to create a series of social spaces**
- **Creates distinct sense of community**
- **Extensive community consultation, planning workshops, & housing visits.**



Ireland

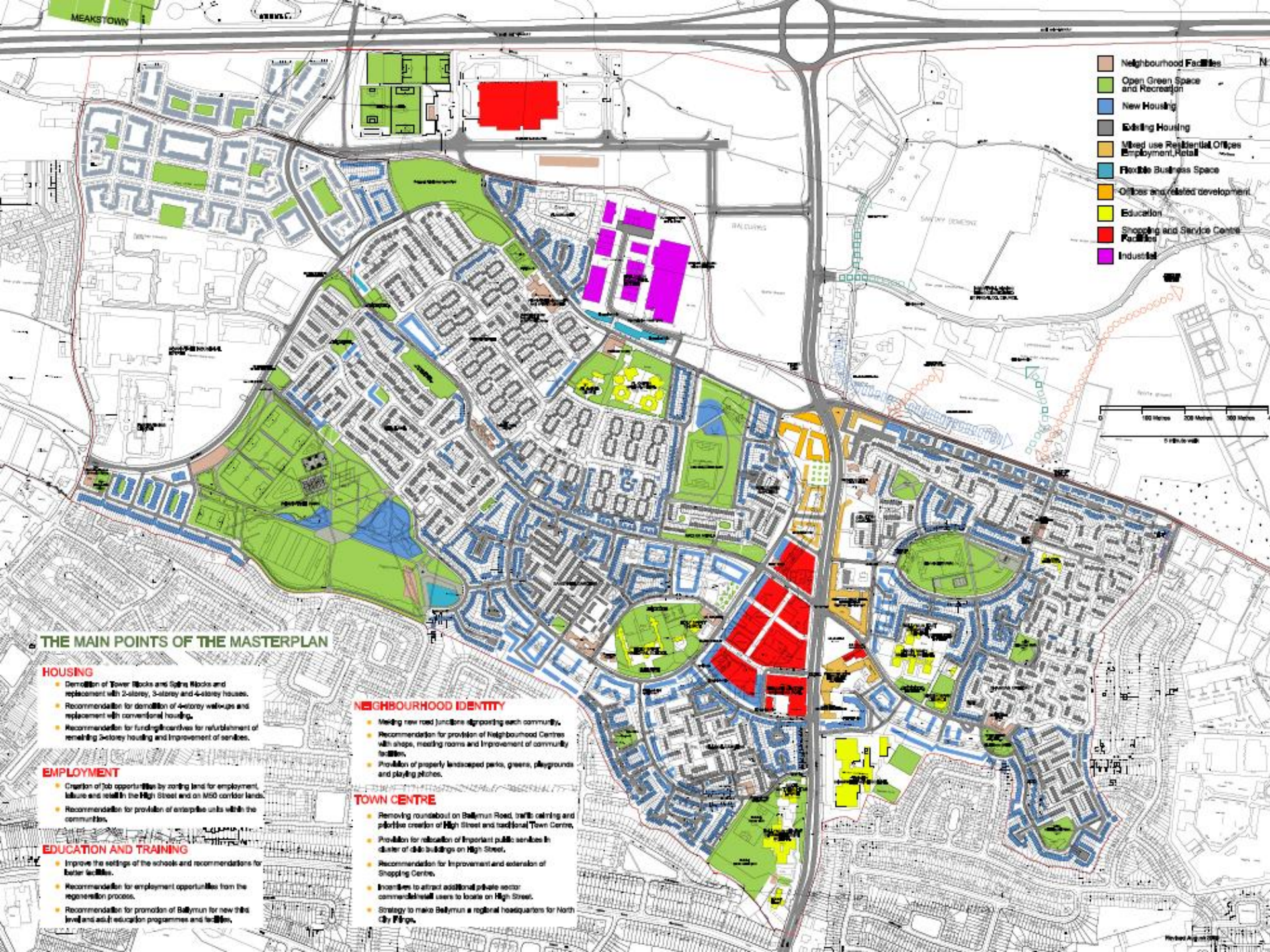
Ballymun, Dublin

Inclusive
Housing in
Suburban
Regeneration





1960's high rise estate of 20,000 people, characterised by poverty, disability & anti social behaviour





Priorities agreed
Options considered
Solutions identified
Commitment to
Lifetime adaptable
standards



Ballymun, Dublin



New houses
mainly 2 – 4
storey designed
to Lifetime
Homes
Standards

2000 - 2010



Ballymun, Dublin



Lifetime Standards facilitated easy adaptation for elderly & disabled people

USA

Atlanta, Georgia

Centennial Place

Public Housing designed to Visitability Standards



USA

Atlanta, Georgia



Centennial Place

Public housing

In private management

USA

Decatur GA Co-housing community



Zero Step Entrances, Wider Doors, Bathroom at entry level, Age profile 0 - 85

USA

Co-housing community



**Shared Common Areas, Community Centre, Tools,
Childcare, Cooking**

Urban areas to support ageing in place

Some international examples

Spain

La Plaza de Ramales, Madrid



The Plaza de Ramales, on the site of the remains of San Juan Bautista Church, is on a pedestrian route between the Prado Museum & the Royal Palace, in the historic part of the city



EMVS Municipality of Madrid

Cubillo Arquitectos
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La Plaza de Ramales, Madrid



The remodelling of the square has eliminated cars, creating a pedestrian leisure area with seats and trees. A tactile map describes the historic remains.

Italy

Venice – Città per Tutti



Almost 70% of the city is now accessible with maps showing routes & itineraries

Norway

Schandorff Square, Oslo



A steeply sloping urban site in the centre of Oslo - skilfully converted from a car park to an accessible urban green space

Schandorff Square, Oslo



The 7m fall across the site was an access challenge. An elegant meandering ramped walkway with regular resting places is the defining feature of the new square.

Schandorff Square, Oslo



Along the ramp
small plazas have
been created
where people can
meet. Seating has
been grouped so
that people can
chat easily if they
wish

Schandorff Square, Oslo



Two carefully preserved trees together with a new cherry grove and planting of scented & flowering shrubs have created an oasis of calm and tranquillity in a dense urban setting

Adaptation of existing houses – Examples from Belgium & Italy

Belgium

UD Woonlabo, Hasselt

Universal Design Living Lab



Renovation & adaptation of typical row house to suit the needs of a contemporary and aging population

Universal Design Living Lab

Concept

**Demonstration
House**

Visitor Centre

Research Lab

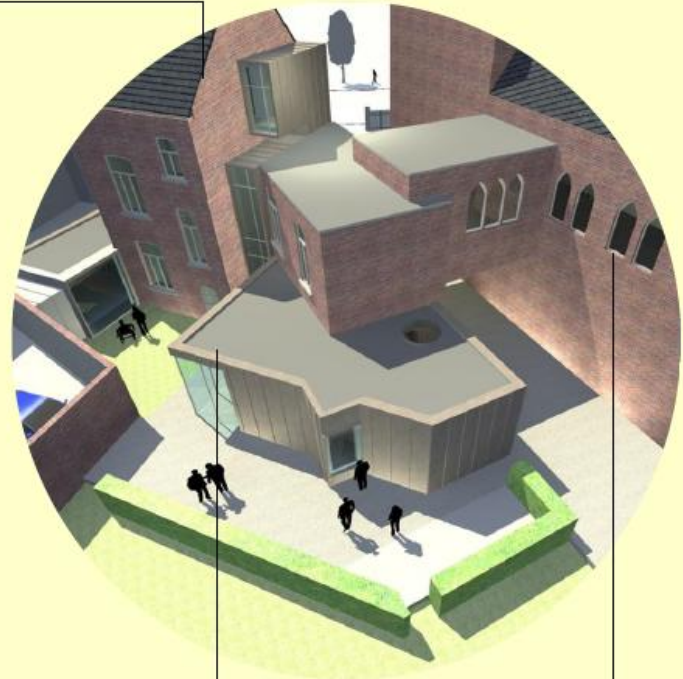
Concept

The 'UD Woonlabo' accommodates **3 functions** :

Demonstration house

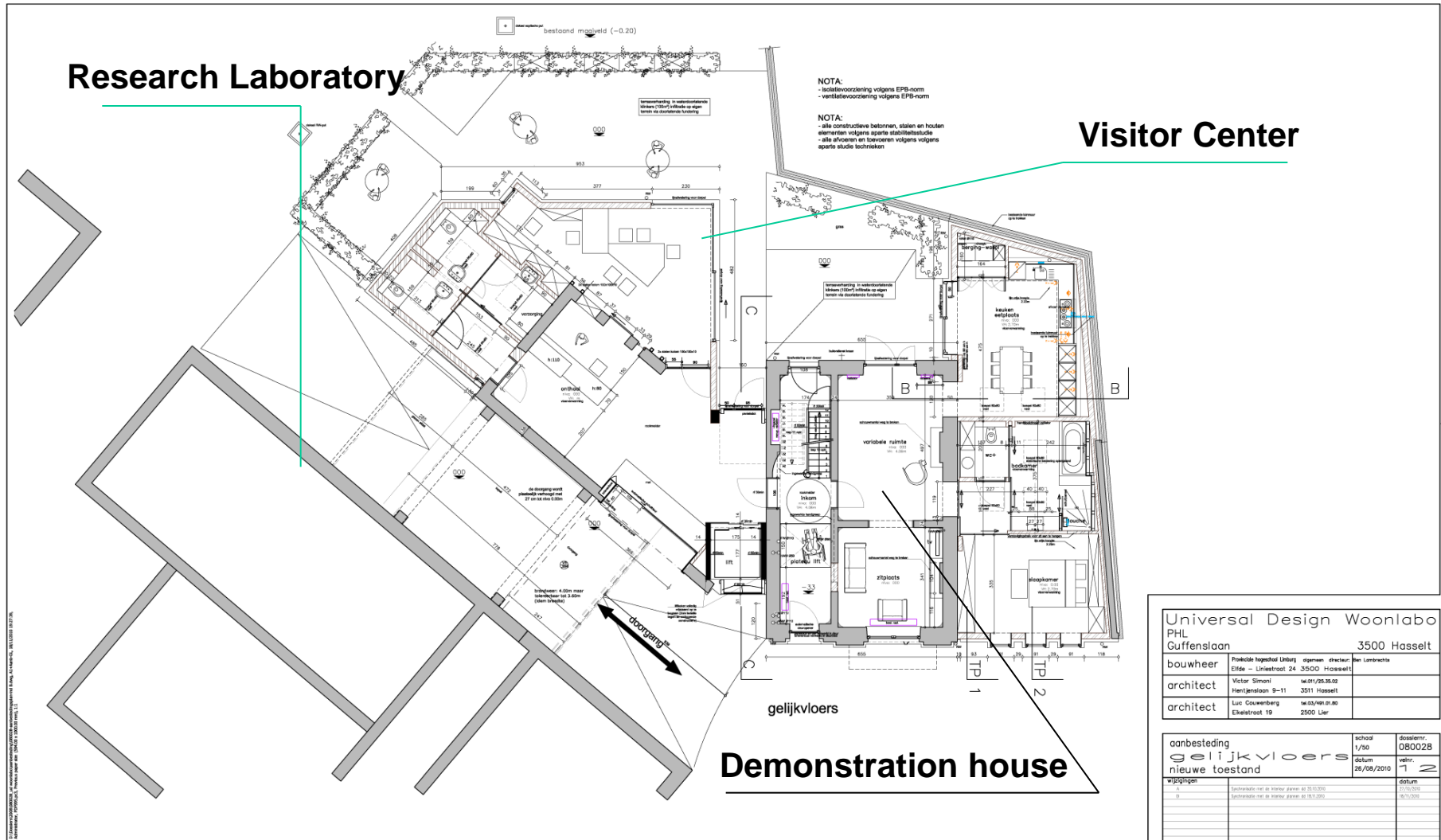
Visitor Center

Research Lab

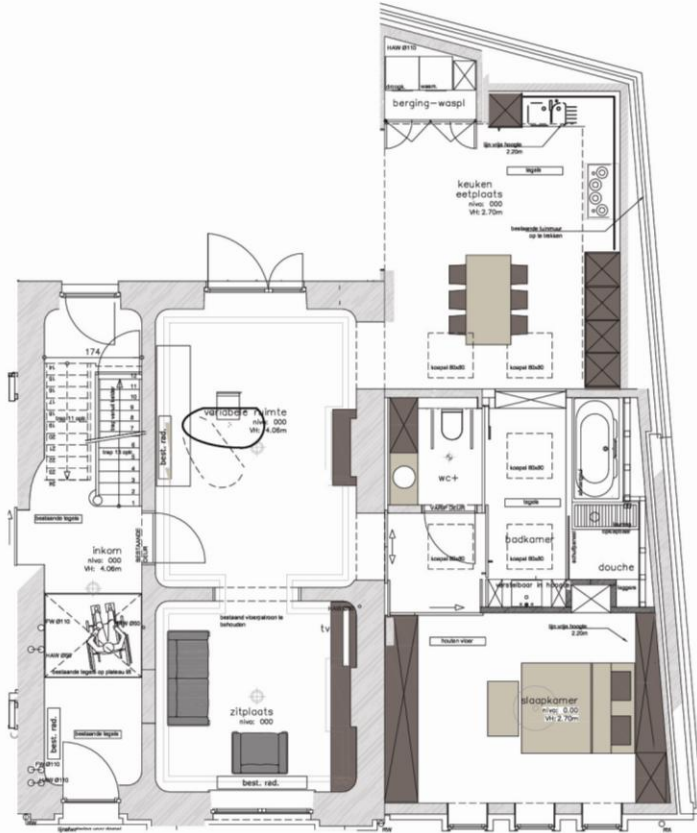


Trustees: PXL University College, TGB Office for Accessibility, U Hasselt
NV SIMONI Architects & Architectenvennootschap TOKO BVBA

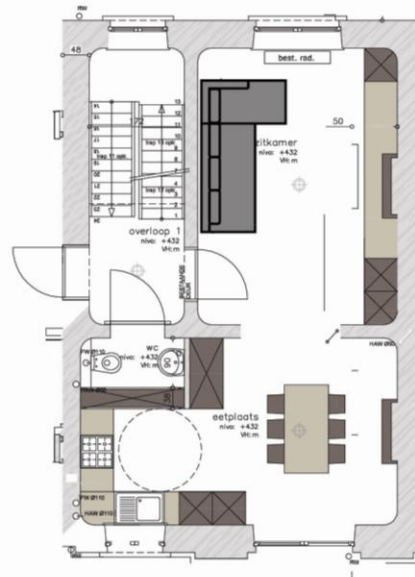
Global UD Living Lab Project



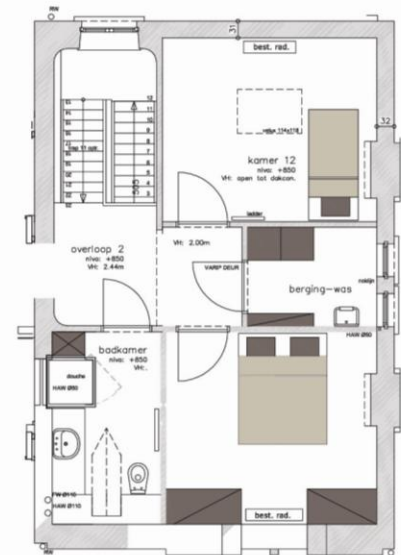
Demonstration House



Gelijkvloers



1ste verdiep

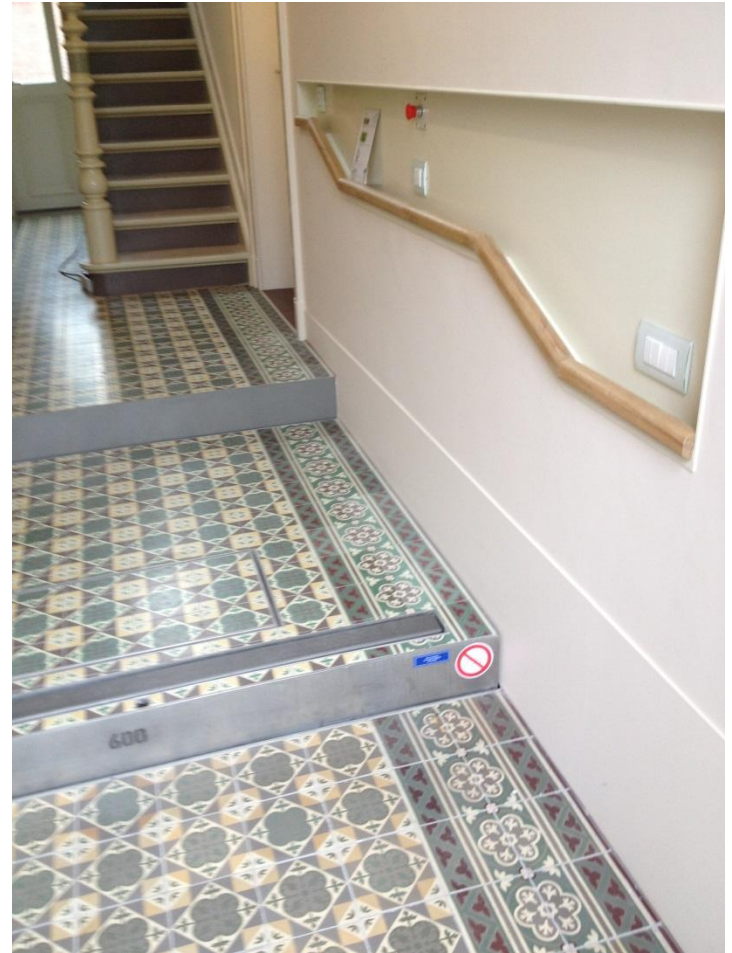


2de verdiep

Entrance remodelled



**External steps eliminated
to create level entrance**



**Option of internal steps or
platform lift**

Kitchen



Wheelchair accessible ground floor dwelling with continuous, adjustable worktops & accessible cupboards

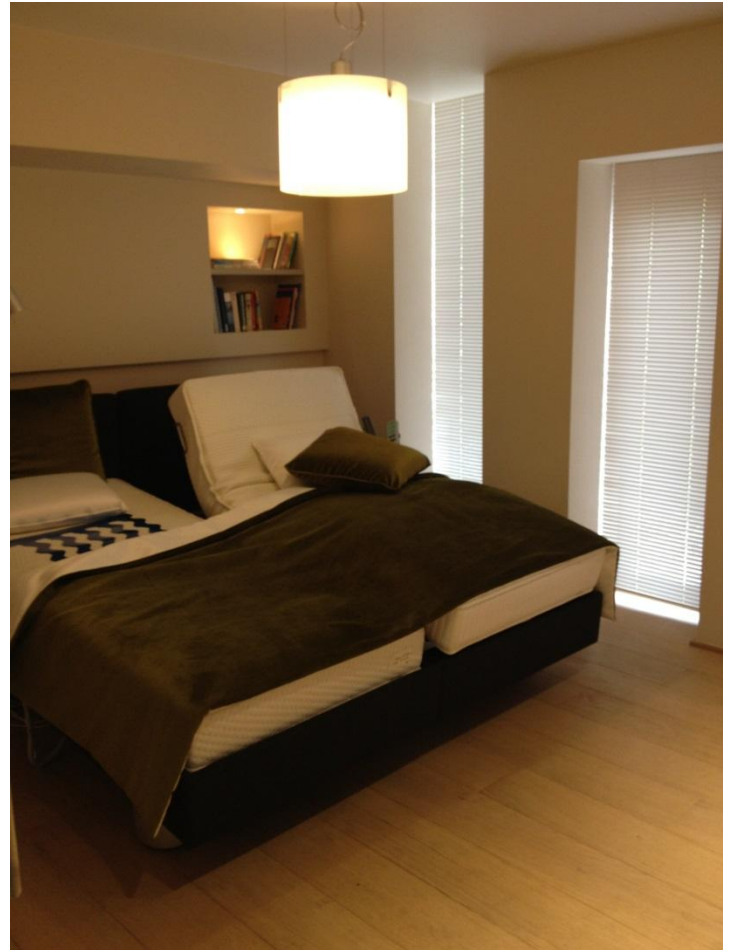
Domotics & Home Controls



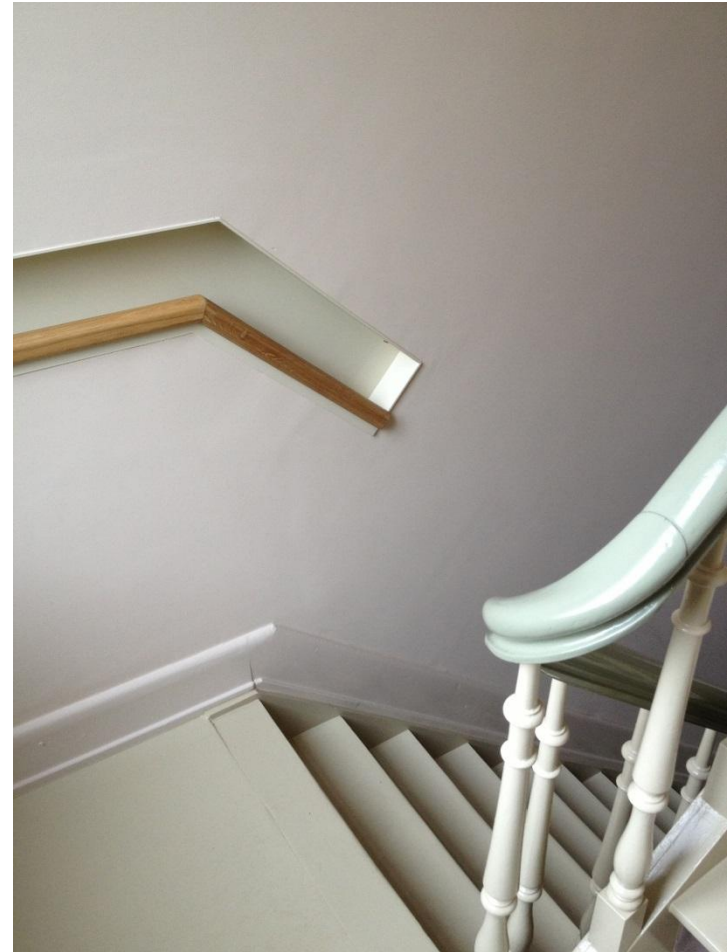
Adaptable Bedroom



Accessible & Flexible Toilet



First floor duplex apartment

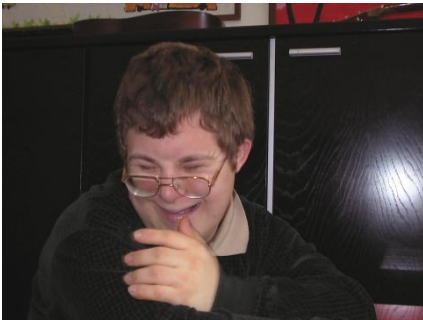


Good circulation, colour and tactile contrast, daylight and artificial light, ergonomic handrails & other inconspicuous features

Italy

Abri Project Milan

Architect: Paola Bucciarelli / HB Group



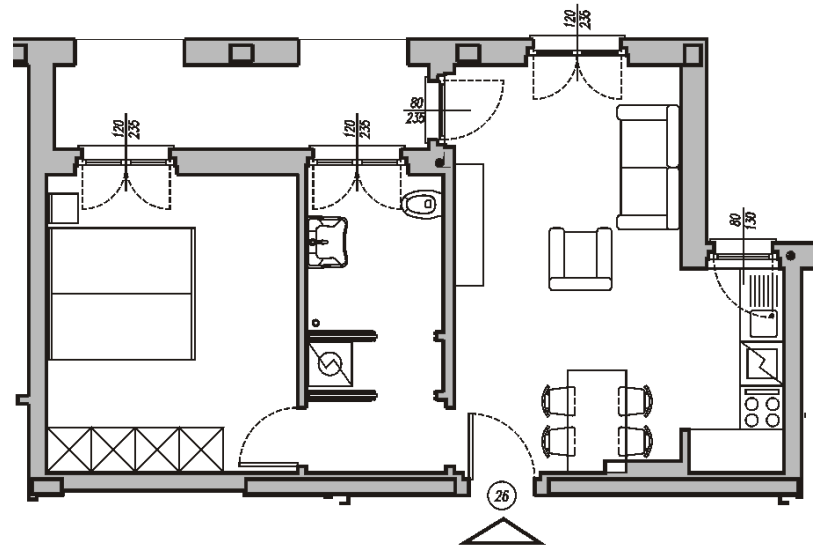
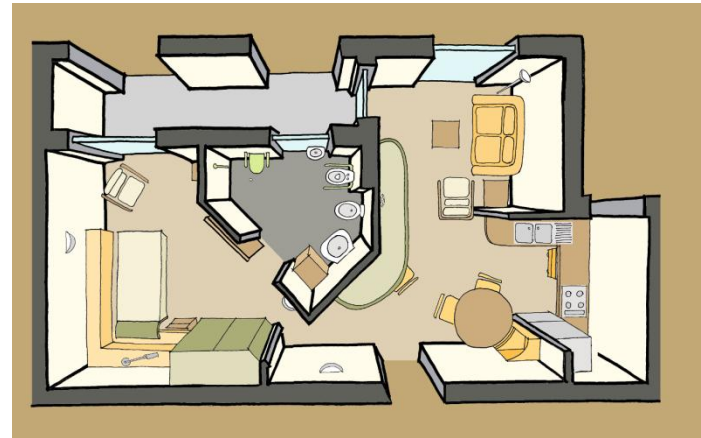
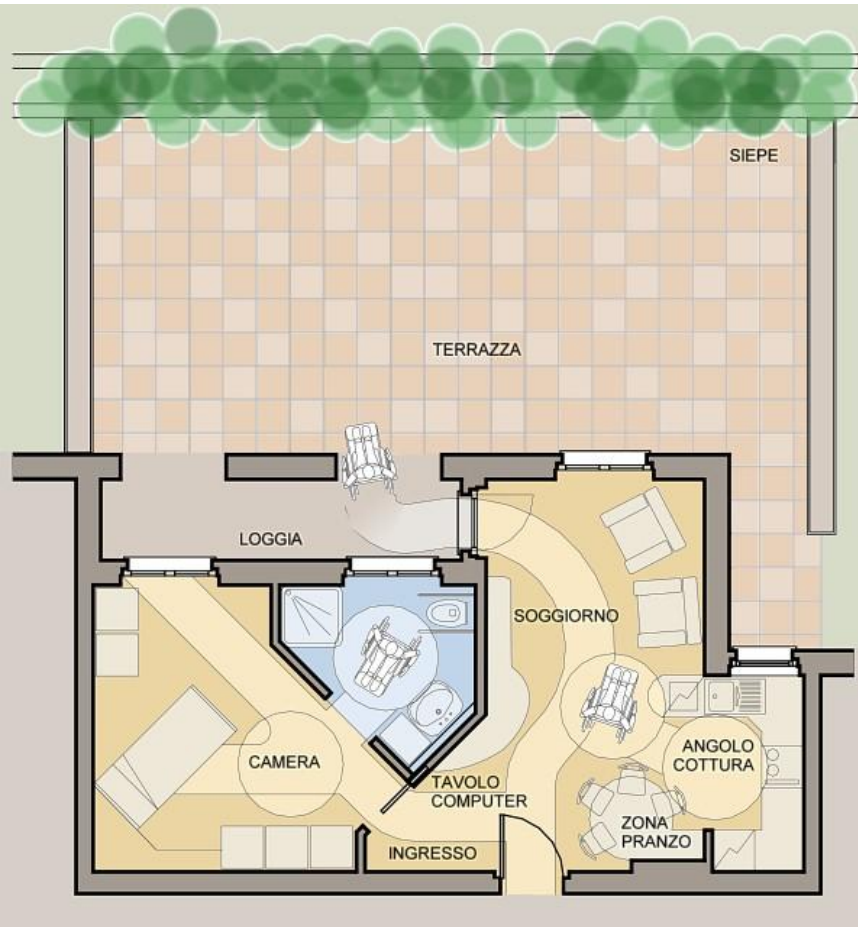
Adaptation of an apartment block to provide accessible accommodation for 17 Residents – nine with Down's Syndrome & three quadraplegic.

The plans were developed following close consultation between the future residents and the architects

Italy

Abri Project Milan

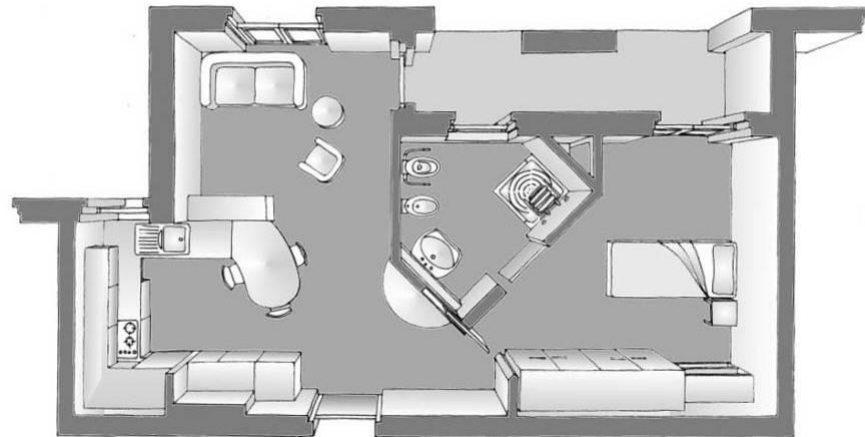
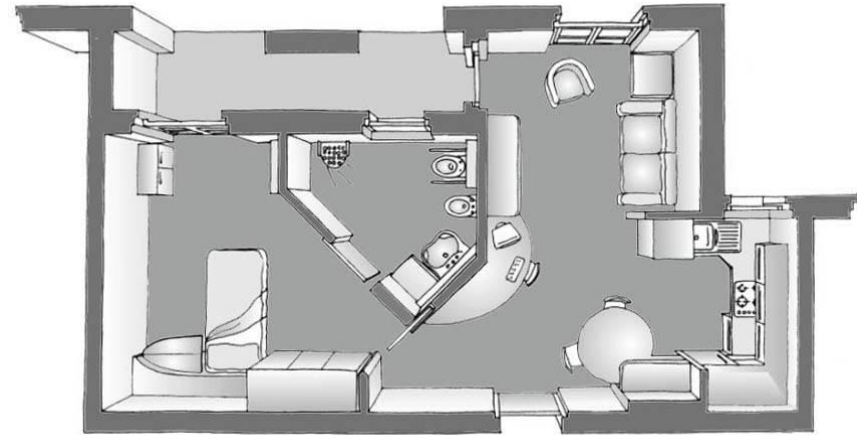
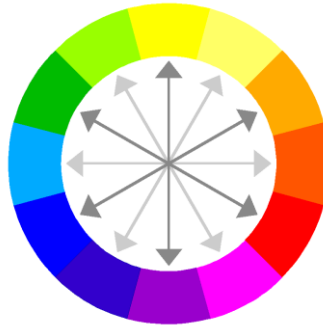
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Two plan types were developed with clear circulation routes

Colours were carefully chosen to suit the individual residents & to aid in daily tasks

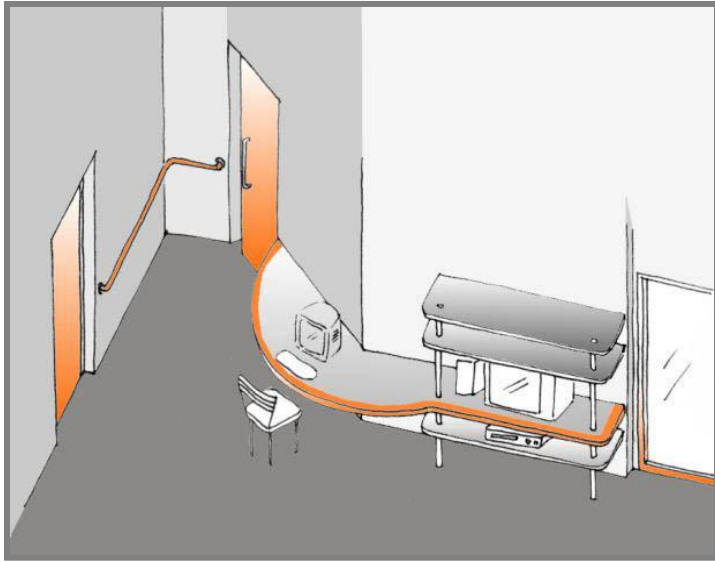
- illumination
- tonal contrast
- symbols



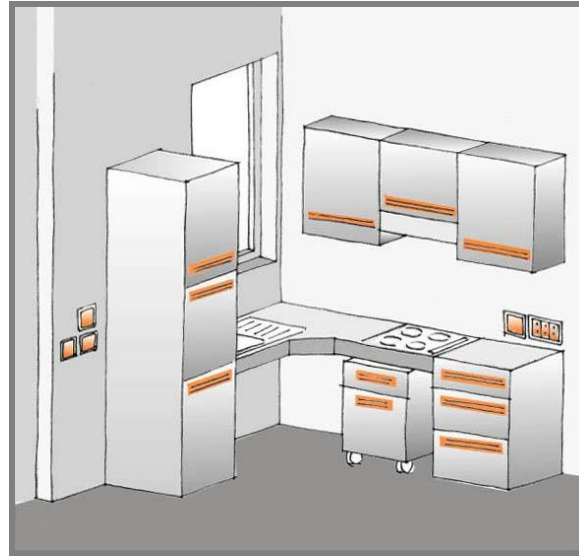
Italy

Abri Project Milan

Architect: Paola Bucciarelli / HB Group



To define routes



Identify openings
and controls



Delineate different
functional zones

Italy

Abri Project Milan

Architect: Paola Bucciarelli / HB Group

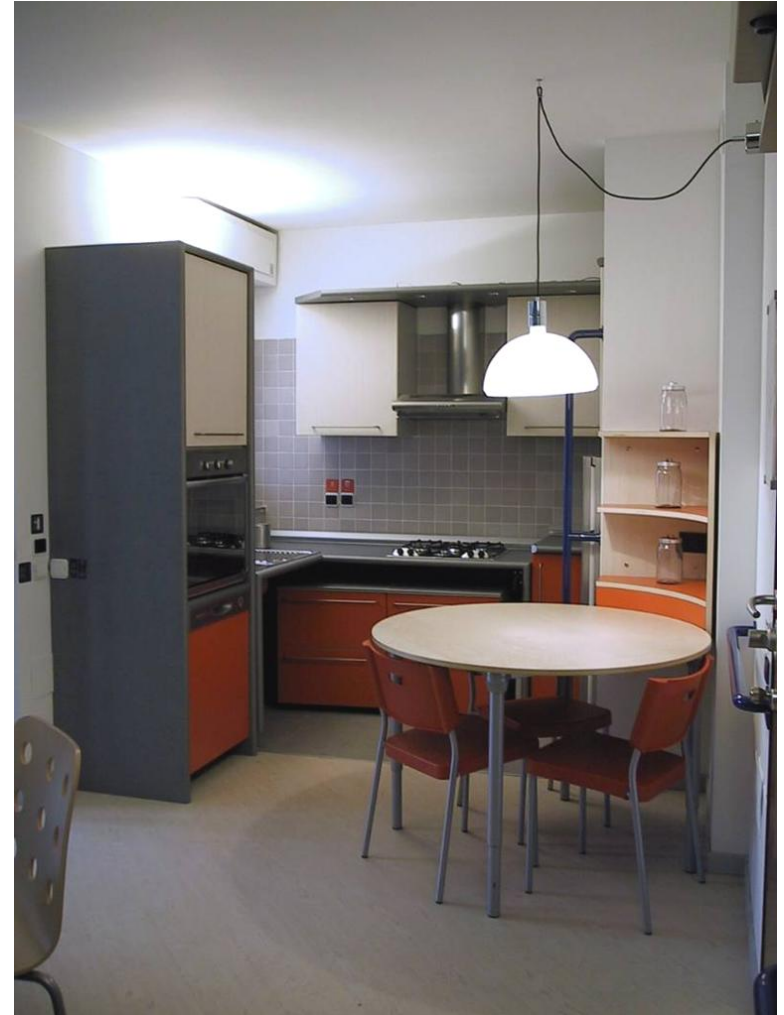
Fittings & fixtures were carefully detailed



Italy

Abri Project Milan

Architect: Paola Bucciarelli / HB Group



Italy

Abri Project Milan

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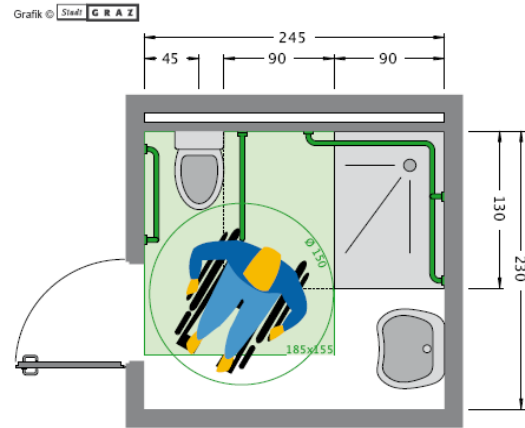




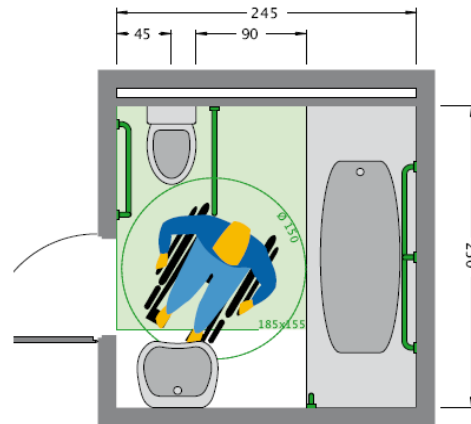
Post occupancy evaluation was extremely positive
And the residents delighted with their homes

Austria

Housing Guidelines



In einem kleinen Bad können sich die Bewohnerinnen



aus überqueren, wie hier der Transferbereich

Handbook for Barrier Free Homes



Photos: bmsk / Design for All

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Conclusion

As we grow older we want to remain in places we are familiar with, in homes we are comfortable with

We want to retain our **independence** with opportunity for social engagement and recreation

For designers and architects **inclusive design** is about putting people first. Consultation and **the right to choose** are essential

Housing and healthcare are inextricably linked and integrated **care in the community** will extend our quality of life

Cities, towns and villages are the places where this can happen

Tak!

Fionnuala Rogerson

UIA Region I Architecture for All Work Programme

info@rogerson.ie