

Visualising Home

Older People Adaptations and Management of the Design Process in Private Housing

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Building Partnerships



Building Partnerships



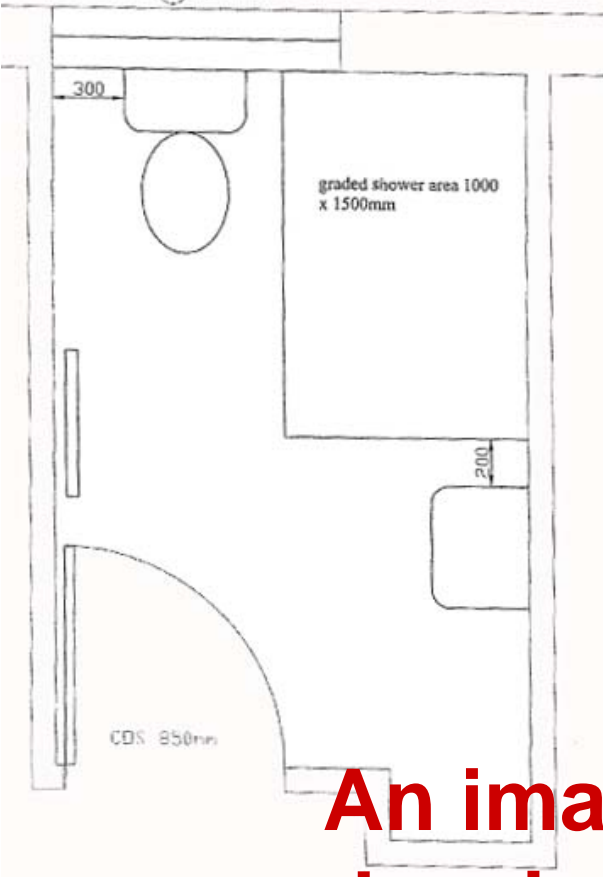
Building Partnerships in Housing

Cross- disciplinary research team. The focus of the study is on the **communication processes involved in the design of housing adaptations for older people.**

‘It is like when you buy a new three piece suite. You see things in a shop and you have a good idea about it...

But when it comes home it is completely different.’

new stub stack to receive WC,
WHR and shower waste, and
connect to existing drain run /
inspection chamber



**An imaginary leap: from
drawing to finished adaptation.**

Research Partnerships

Principal Investigator

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Project Researcher

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Senior Research Fellow in the Medical Architecture Research Unit,
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Research Collaborators

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Supported by



Federation of Master Builders (FMB)

maru
medical architecture research unit

SPARC

The research study is funded by
SPARC

*Strategic Promotion of Ageing Research
Capacity*

This is a joint venture by the BBSRC and the EPSRC to build a network of biologists, physical scientists, designers, engineers and practitioners interested in conducting ageing-related research.

What is the Research Study?

A Feasibility Study of Knowledge
Management Information and Visualisation
Systems:

*Integrating the Technological and Social
Models of Later Life in the Maintenance
and Adaptation of Private Housing*

Research Aims

- 1) Expose the process of getting maintenance, alteration and extension works carried out in private, owner occupied housing

2) Identify and examine the roles of the key resource controllers involved in determining client needs and initial solutions including.

- **Client and Carer**
- **Occupational therapist**
- **Builder**
- **Architects, Designer**
- **Building surveyors**
- **Building control official,**
- **Planning official**
- **Grant or technical officer**

3) Locate the sources and extent of knowledge related to key design and implementation issues

4) Map the flows of communication and transfer of this knowledge

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- 5) Determine the **feasibility** of developing systems and an information and visualisation tool to support the design process to ensure that both the user and the builder are presented with best technical answers to fully meet their needs

 - 6) Determine the **feasibility** of developing an information and visualisation tool to support the design process

Structure of the Feasibility Study

Duration: 12 months.

Started January 2006

Focus is on one London Borough which has a mixture of different types of owner-occupied housing.

Stages in the Study

1. Literature review + ethical approval
2. Establishing contacts – identifying participants for interview
3. Interviews with professionals and users. Use of a case study approach to determine ‘flows of knowledge’
4. Analyse, and report on, existing roles and structures + make recommendations for development of new knowledge management systems

Methodology

- Initially sought older people who had followed the DFG route as well as those who had financed adaptations privately to participate in the study.
- Search was for people aged 60+ who had an adaptation costing £10,000+ completed during 2005-2006.
- All architects and surveyors in the London Borough were contacted but none could identify any such privately financed projects

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- Contacts with the social services occupational therapists were much more productive: eleven projects at £10,000+ were identified and a further seven at £7000+ were identified. (Bathroom and toilet conversions, spatial reorganisation)
 - Interviews conducted with individual clients (with a wide range of problems).

Themes from the Findings

- Professional interaction: attitude, content and the means to convey the message
- Knowledge exchange and development of information to builders
- Communication issues with clients to develop a 3D visualisation tool

Key Role of Occupational Therapist

- Interviews with clients, occupational therapists, surveyors and builders.

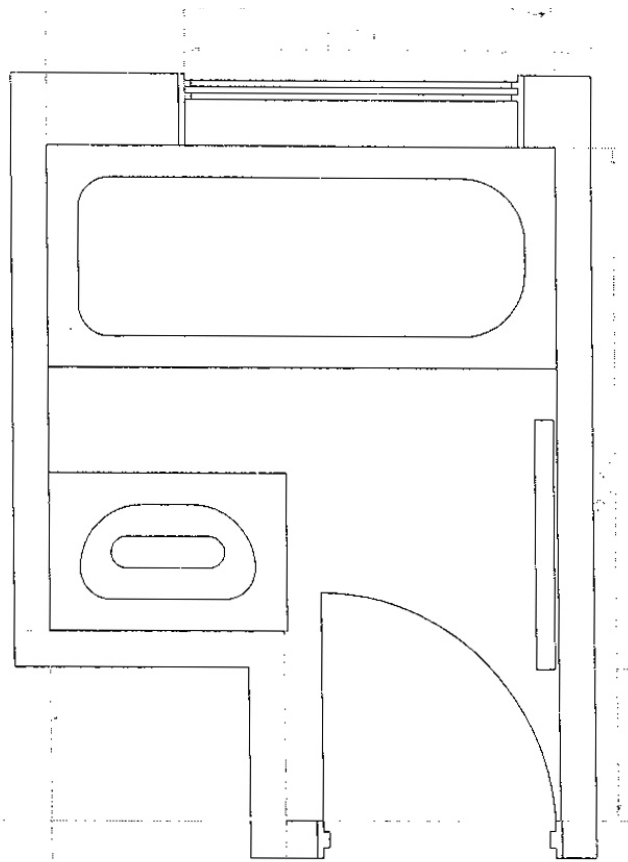
OT is central!

Communication line – OT

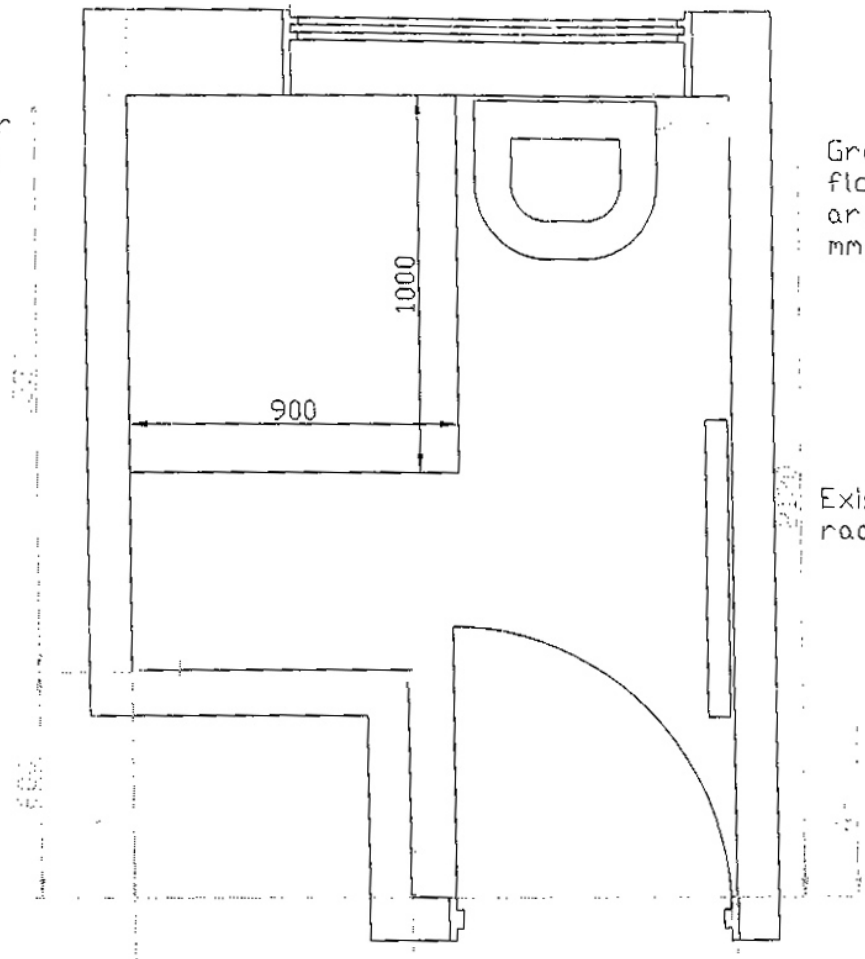
- **Client assessed by OT**
- **OT requirements to grant surveyor**
- **Surveyor produces drawing**

Main communication mode between OT and surveyor is the plan drawing

Graded wet floor
shower area 900
x 1000 mm



Graded wet
floor shower
area 1000 x 900
mm



Existing
radiator

the plan drawing

Communication line – OT

- **Design agreed between OT and grant surveyor – OT has final say**
- **Plan drawing goes to builder**

Wash hand basin
to be removed

SVP

Bath to be
removed

Partition wall
to be removed

W.C. Pan and cistern
to be removed

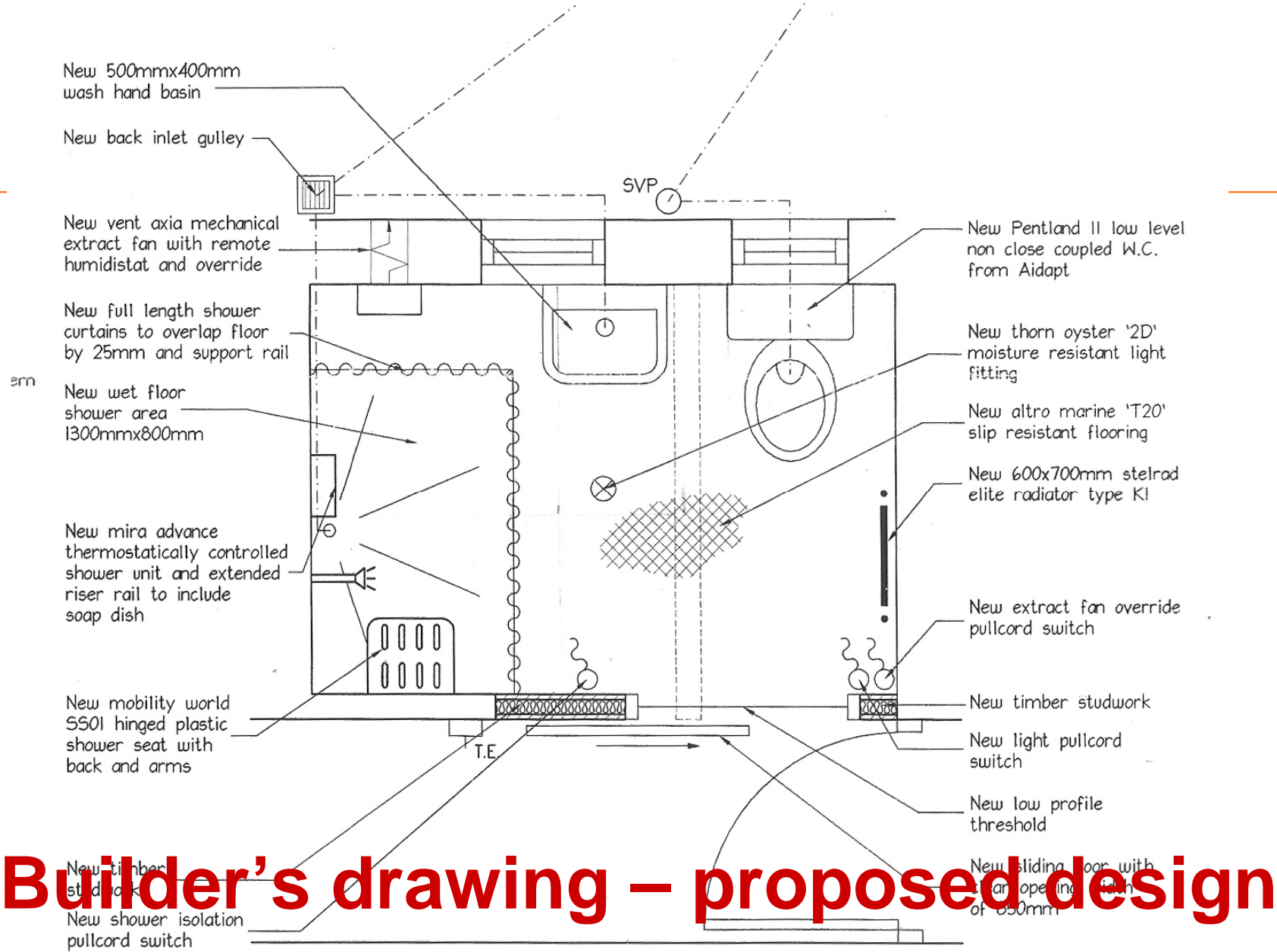
Existing radiator
to be removed

Light fittings
to be removed

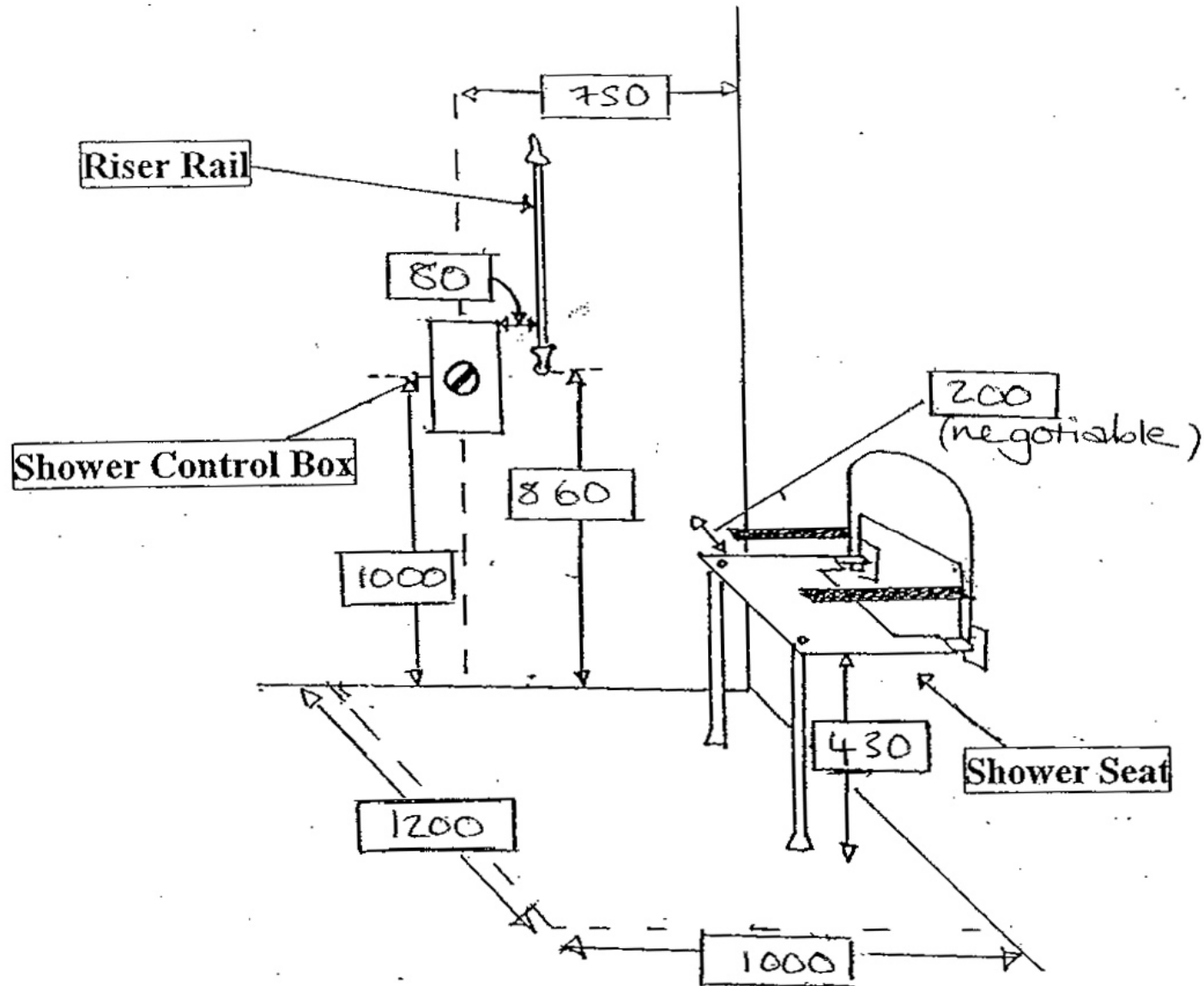
Doors to be
removed

T.E.

Builder's drawing - existing layout



Builder's drawing – proposed design

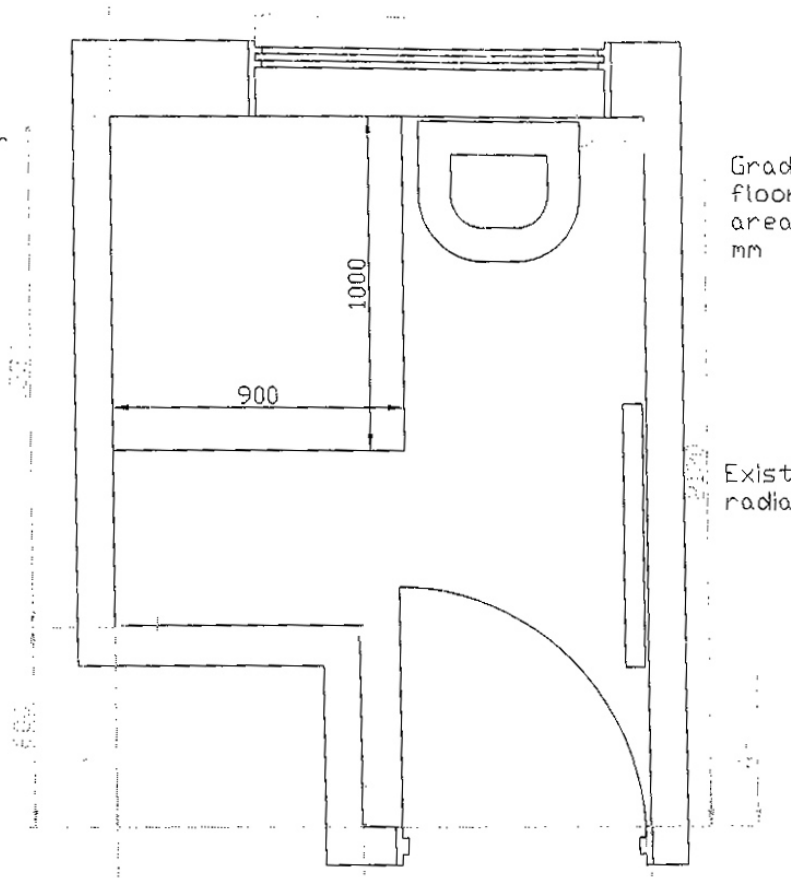


OT's drawing - shower projection

Client – OT interaction

- Most contact with client
- Explains surveyor's design

Client - OT Interaction



‘I was more worried what it would look like than if it functioned.’

Means of communication

- catalogues
- exhibitions
- photos of projects



Client – OT interaction

- Client consent at every stage
- Client led by OT

Client designs with builder

- fittings
- tiles
- other extras





The progress of construction is a potential source of stress to the client.

Communication **Challenges** to OT Understanding

- Not age-related
- Severe physical and/or psychological problems
- Cognitive problems - rely on representatives (family)

Difficult Adaptations to Explain

Most difficult concepts

- 1) Level access shower : *the 'wet floor'*
- 2) Aesthetic concerns: *satisfaction*
- 3) Ramp – length in relation to gradient
- 4) Outdoor step lift

All interviewed clients:

Concerns about *space*

Client **Engagement** in Design

-participation

-information and consent

-trust

‘One thing which could be improved is that you talk about the adaptation but they don’t have a clue what you are talking about.. You do your best to describe it.’

Adapting the communication for the carer and family

*Representing the client, heavy
assistance by spouses*

**“We simply had to
trust the OT.”**

No project moves forward without client consent...a certain level of understanding

3D tool

OT view that it would facilitate the client understanding the design: all clients enthused: *'It is a brilliant idea. The drawings are OK, but I had difficulty understanding where all the rails would be.'*

3D tool

Secondary
literature search:
*Telford and
Wrekin Home
Improvement
Agency*



3D tool

HIA Surveyors
utilising 3D tool for
MnG Designs:
image for OTs to
use with clients –
no formal follow up
of use



3D tool: choice and quality standards

Next stage
commission would:

Investigate great
practice: Habinteg
HA, Alison Wright's
Easy Living Home



Smart thinking





Summary

Two dimensions of communication:

- **OTs ability to present rationale for adaptation: *trust and client issues***
- **Information presentation: *client understanding, issues not raised***

Summary

Four issues for adaptation in the home:

- 1. Importance of visualisation of the finished product - linked to stored information**
- 2. Clients adapting to the adaptation...**
- 3. Understanding design issues**
- 4. OTs supporting through construction**

Discussion

Clients ineligible for the grant:

- **What are their strategies for resolution?**
- **Getting more builders on board**
- **Develop 3D tool practice**

The community of practice: evaluation of ongoing practice

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