



SURFACE Inclusive Design Research Centre
Centre for Rehabilitation and Human Performance Research

I'DGO TOO

Inclusive Design for Getting Outdoors 2

What are the implications of the design, siting, laying and use of tactile paving for older people

- **To examine how blister and corduroy tactile paving is designed, sited and laid**
- **To identify older people's perceptions and approach to using tactile paving**
- **To quantify the relationship between tactile paving design parameters and the biomechanics of ambulation and risk of falling**

The research is divided into

- **Gather and analyse data from the real world**
- **Carry out similar study in a controlled environment - laboratory**
- **Combined site specific studies – “Controlled real world”**

Following environments are being investigated

- **Pedestrian crossings**
- **External stairs**



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Ever Used?

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Real world studies completed



Completed

- **Literature Review**
- **Cognitive Model:** **Transport Research Laboratory
behavioural Study**
- **Pilot study**
- **54 Short case studies:** **All selected but still in progress**
- **19 Longitudinal case:** **All selected; data collection due to
start in July 2008**
- **Publications:** **Conference details**

54 Short case studies



All sites measured and documented

- **Pedestrian traversal times completed at 80%**
- **TRL Human Behaviour Study of Puffin and Pelican Crossings**
- further issues from the cognitive model that could be pursued
- **Incorporated into new questionnaire to be circulated at all to replace interview sheets**
- **New video capturing techniques to be trialled to streamline data collection**
- **Hand out questionnaires and gather additional data on tactile paving, crossing preferences and level of fitness/ personal characteristics**

54 Short case studies



**Cameras 1
& 2**

Cover outside
chevrons as well

**Cameras
3 & 4**

Cover outside
the chevrons
as well

19 Longitudinal Case Studies

Next stages (some are in progress)

- **Longitudinal case studies (19 sites to be studied for two years)**
- **Liaise with Traffic Engineers in Local Authorities**
- **Questionnaire Survey & Interviews**
- **Coordinate controlled and longitudinal studies**
- **Publication and Dissemination**

19 Longitudinal Case Studies



A few more details:

- **2 sites have been added from NZ – segregate dropped kerbs and tactile paving – LTNZ 2004**
- **Authorities have been contacted still to arrange Delphi Group to comment on adjacent area design and check site design standards**
- **Questionnaire Survey which now includes TRL issues from Puffin and Pelican Study as well as pedestrian preference for each type of crossing**
- **Questionnaire – additional tactile paving reaction / coordinated with video captured data**
- **Journal articles envisaged for end of 2008 - stairs(1) and crossing(1)**

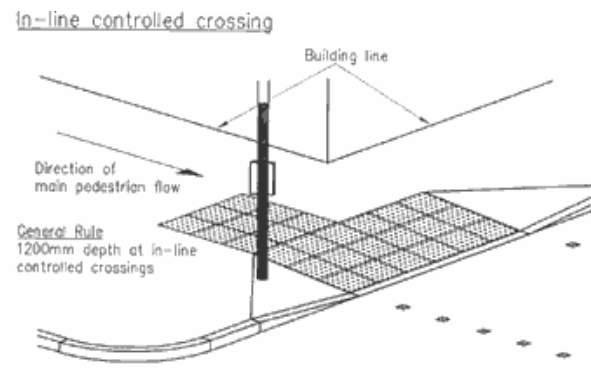
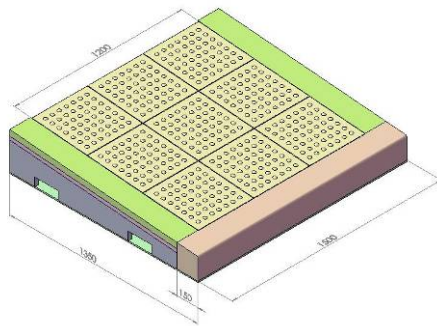
Laboratory Studies

Walkway Design

Design nearly complete
Completion expected by end of June

Safety Harness System Installation

Design of installation method
expected to complete fixing by mid June



Data collection & software programming

**Preliminary camera set up has been tested
& data has been collected**

**Software design: Several algorithms have
been completed**



Next stages: (6 months)

Finalize software development

Complete test protocol

Complete testing of young people

Subjects & start testing older people

