



Guide Dogs – An Overview

Guide Dog Service
My Guide Service
Children and
Young People's
Services



Sighted Guiding - Key Steps



1. Introduce yourself and offer assistance. Ask how they'd like to be guided - right or left arm (the pint pot grip) or shoulder. Start when you're both ready; relax, find a comfortable speed for you both
2. Negotiating narrow spaces - put your arm back so they can tuck in behind
3. Doors - put them on the hinge side, let them know if it opens towards or away from them and use guiding arm to help them locate the door
4. Steps/stairs –say whether they are up or down - no need to count
5. On reaching destination, leave them somewhere safe and remember to say you're going!



Inclusive environments: Design challenge or fundamental human right?

Carl Freeman
Head of Policy



Overview

- Some key facts about sight loss (quiz format)
- The legal and moral imperatives behind inclusive design and what do we mean by “inclusive”?
- Importance of low-tech and high-tech features in delivering an inclusive society
- Emerging and future trends and how these might impact on vulnerable citizens
- Our plans for an exemplar streetscape



Sight loss awareness quiz

- How many people with sight loss are there in the UK?
 - 100,000?
 - 500,000?
 - 2 million?
 - 4.5 million?



Sight loss awareness quiz

- How many people with sight loss are there in the UK?
 - 100,000
 - 500,000
 - 2 million
 - 4.5 million
- There are around 2 million people with sight loss that affects their daily life
- Of those, around 360,000 are officially registered as severely sight impaired (blind) or sight impaired (partially sighted)
- The remaining 1.6 million have such poor vision that they may have difficulty reading signs or spotting trip hazards



Sight loss awareness quiz

- What are the five most common causes of sight loss in the UK?

- ?
- ?
- ?
- ?
- ?



Sight loss awareness quiz

- What are the five most common causes of sight loss in the UK?
 - Uncorrected refractive error
 - Age Related Macular Degeneration
 - Cataract
 - Glaucoma
 - Diabetic Retinopathy



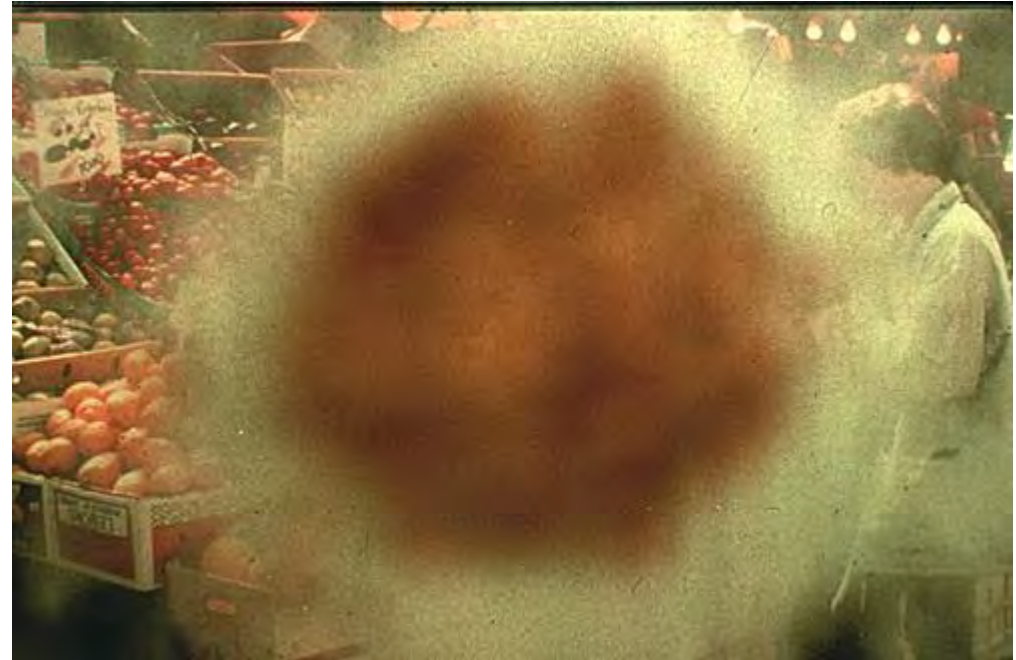
Macular Degeneration

- Poor fine colour discrimination
- Poor depth / distance perception
- Some colour loss



Cataracts

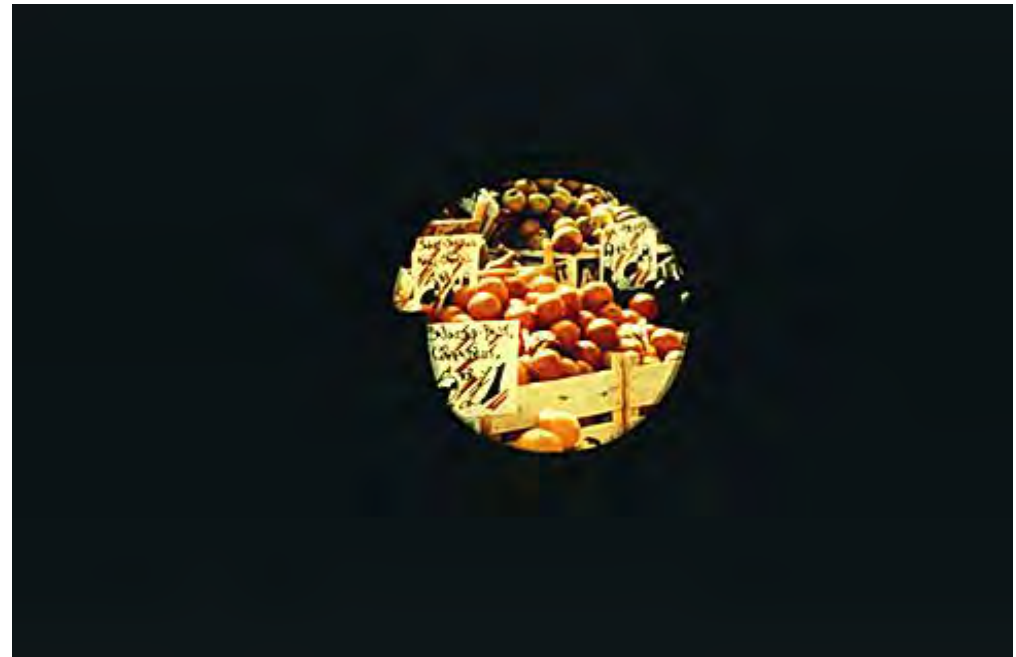
- Colours are less clear
- Extra light may help / may cause 'white out'
- Small features difficult to see





Glaucoma

- Bright light is painful and reduces vision
- Colour vision may be 'normal'
- Obstacles need to be defined





Diabetic Retinopathy

- Features of MD and glaucoma





Sight loss awareness quiz

- The UK is a “state party” signed up to the United Nations Convention on the Rights of Persons with Disabilities
 - True?
 - False?



Sight loss awareness quiz

- The UK is a “state party” signed up to the United Nations Convention on the Rights of Persons with Disabilities
- True
- The UK signed in 2009
- The UNCRPD is an international legal agreement that protects and promotes the human rights of disabled people

UN Convention on the Rights of Persons with Disabilities



- Article 9 requires State Parties to take steps (including the identification and elimination of barriers) to ensure that disabled people are able to access the physical environment which embraces buildings, roads, transportation and other indoor and outdoor facilities



UNCRPD

- Each of the “articles” positions people with disabilities in a human rights context
- Understandably, training on accessibility is seen as a key requirement

Article 9 Accessibility

1. To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation,

These measures, shall apply to,

(a) Buildings, roads, transportation and other indoor and outdoor facilities,

2. States Parties shall also take appropriate measures:

(a) To develop, promulgate and monitor the implementation of minimum standards and guidelines for the accessibility of facilities

(c) To provide training for stakeholders on accessibility issues facing persons with disabilities;



UNCRPD - How is the UK doing?

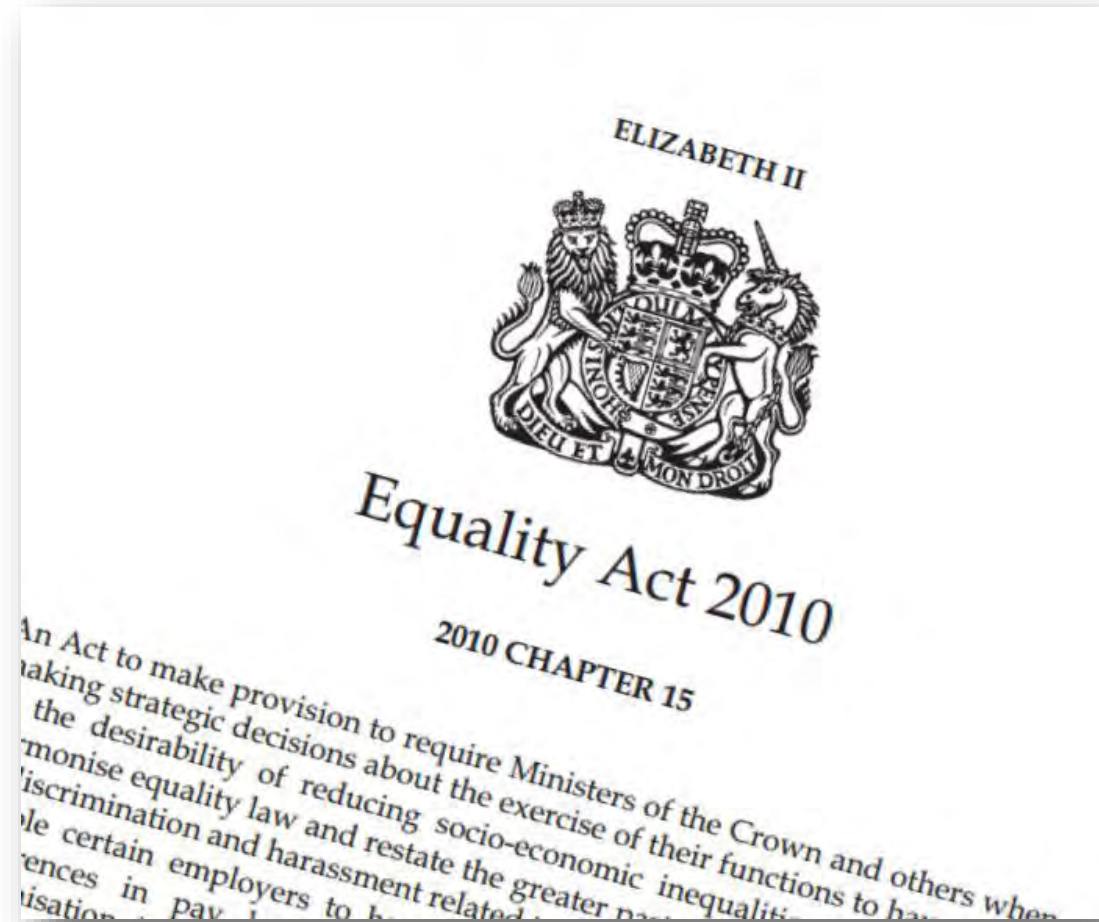
- In 2017 the UN Monitoring Committee expressed the view that legal standards need to be improved to make the physical environment, housing, transport, information and other services more accessible to disabled people

The UN Committee said that the UK should:

- improve legal accessibility standards across all areas of the Convention, including the design of the physical environment, green and public spaces and transport
- monitor progress towards improving accessibility for disabled people and take action against those who ignore their responsibilities



Setting the Context - Legislation



- Disability Discrimination Act 1995 and 2005 now Equality Act 2010
- Transport Act 2000
- New Roads and Street Works Act (1991)
- Highways Act 1980
- The Traffic Management Act 2004



Equality Impact Assessments



- the Public Sector Equality Duty contained in section 149 of the *Equality Act 2010*, requires public authorities to have due regard to a number of equality considerations when exercising their functions
- EqlAs are not required by law, although are a way of facilitating and evidencing compliance with the Public Sector Equality Duty
- The recent Newry judgement made that point



So what is inclusive design?

UN definition



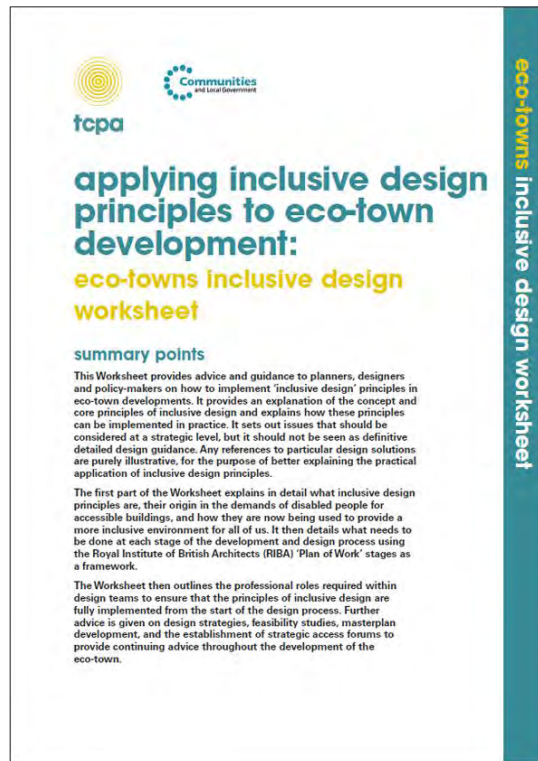
According to the United Nations

- “Universal design” is the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design



Inclusive design

TCPA definition



According to the Town and Country Planning Association

- “the environment is designed and organised from the outset to provide all inhabitants – regardless of age, disability, faith or gender – with places where houses, workplaces, transport or community facilities are responsive to individual need and are located within easy access of employment, services and leisure; *where the public realm does not exclude people; and where all residents are enabled to participate fully in public life and enjoy a real sense of belonging to their community.*”



Why is inclusion important?

Commission for Architecture and the Built Environment



According to CABE (now subsumed into the Design Council)

- 'The quality of buildings and spaces has a strong influence on the quality of people's lives. Decisions about the design, planning and management of places can enhance or restrict a sense of belonging. They can increase or reduce feelings of security, mobility, and improve or damage health. They can remove real and imagined barriers between communities and foster understanding and generosity of spirit.'

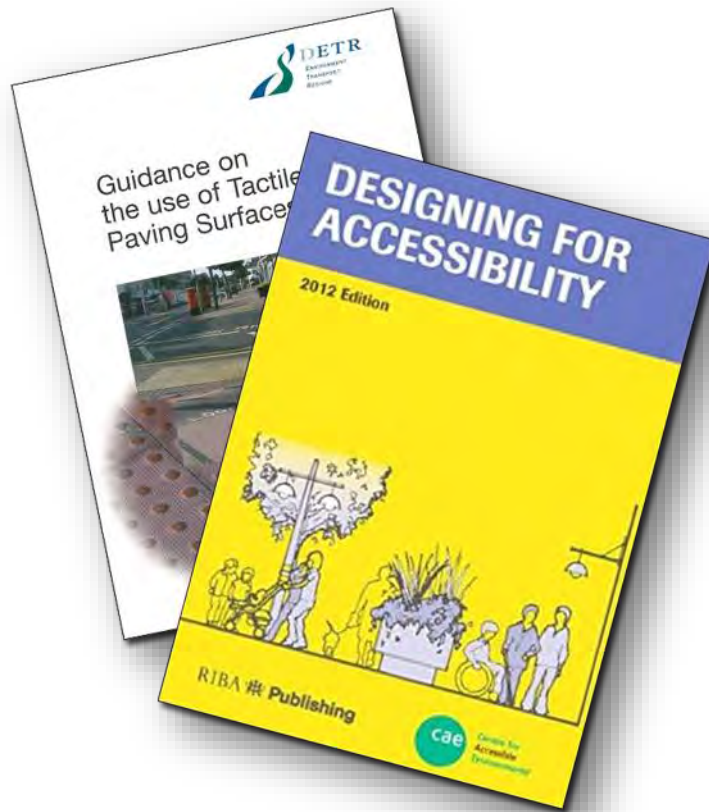


Why is inclusion important?

- Navigating the built environment with little or no sight is challenging to say the least
- We know that sight loss contributes to loneliness and isolation
- This in turn has a negative impact on general health, fitness and wellbeing
- By following best practice guidance and principles of inclusive design (incorporating a mixture of low-tech and high-tech features) councils honour both the spirit of the UNCRPD and the letter of the Equality Act and support the inclusion of vulnerable citizens



Setting the Context - Guidance



- Guidance: Buildings, the built environment and transport system should comply with official guidance (where available) as an absolute minimum requirement but should strive to implement a higher standard as best practice
- Revision of the guidance on tactile paving is overdue



Setting the Context - Guidance

- Whilst guidance is not compulsory, it can support best practice and will certainly not hinder adherence to legal and moral requirements to provide an inclusive society
- Guide Dogs published this document in 2010

**Inclusive Streets:
Design principles
for blind and partially
sighted people**





Setting the Context - Guidance

- Whilst guidance is not compulsory, it can support best practice and will certainly not hinder adherence to legal and moral requirements to provide an inclusive society
- And this one came out in 2017





Setting the Context - Guidance

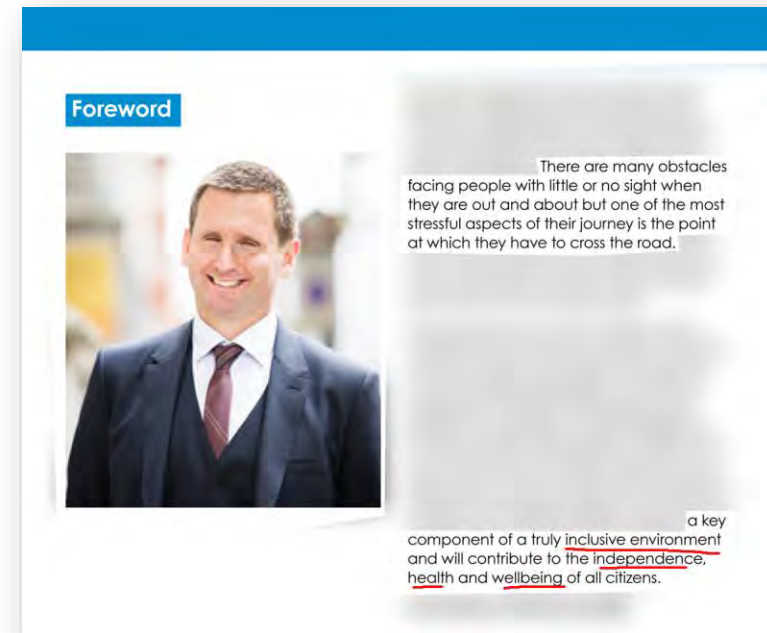
- This particular guidance was based on research conducted by the University of Leeds into the experiences of people with vision impairment in relation to getting across the road
- That research highlighted *the importance of being certain*





Setting the Context - Guidance

- This particular guidance was based on research conducted by the University of Leeds into the experiences of people with vision impairment in relation to getting across the road
- Lord Holmes highlighted the links with wellbeing

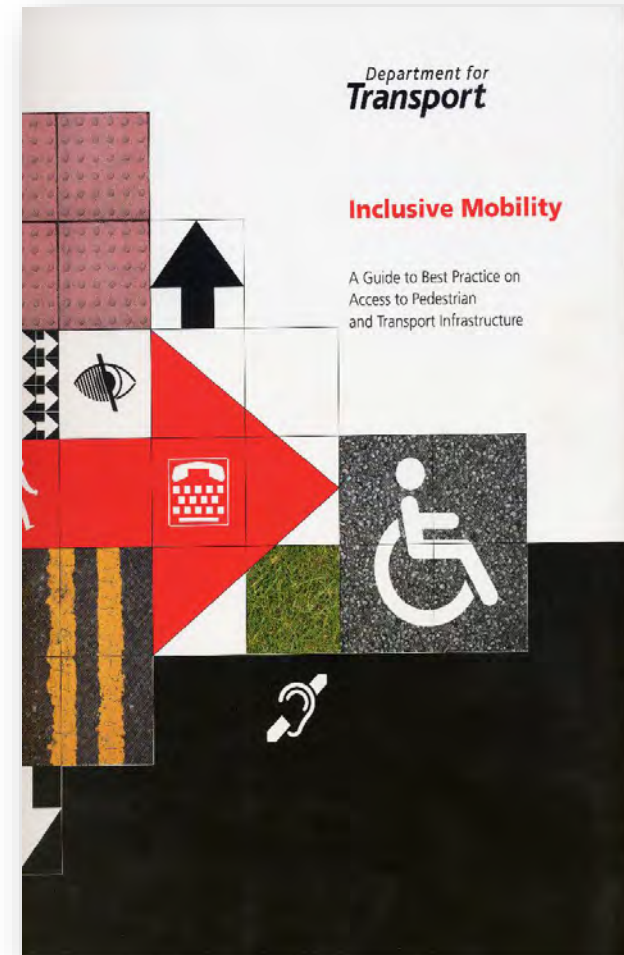




Design Requirements

Design and layout issues that make the pedestrian environment more accessible to blind and partially sighted people....

www.dft.gov.uk





External Design

- Information – Audio and visual
- Logical layout
- Signage
- Clear routes
- Colour/tonal contrast
- Good and consistent lighting levels
- Tactile information
- Consult and Involve disable people and/or organisations



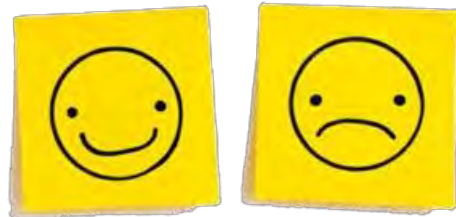
Pedestrian Route

- Kerbs- dropped kerbs with recommended tactile paving
- Tactile paving
- Street furniture – non reflective, contrasting features, logically positioned
- Signage
- Cues and clues



Design Requirements

- The photographs in the following slides feature good or bad examples
- You be the judge!





Design Requirements

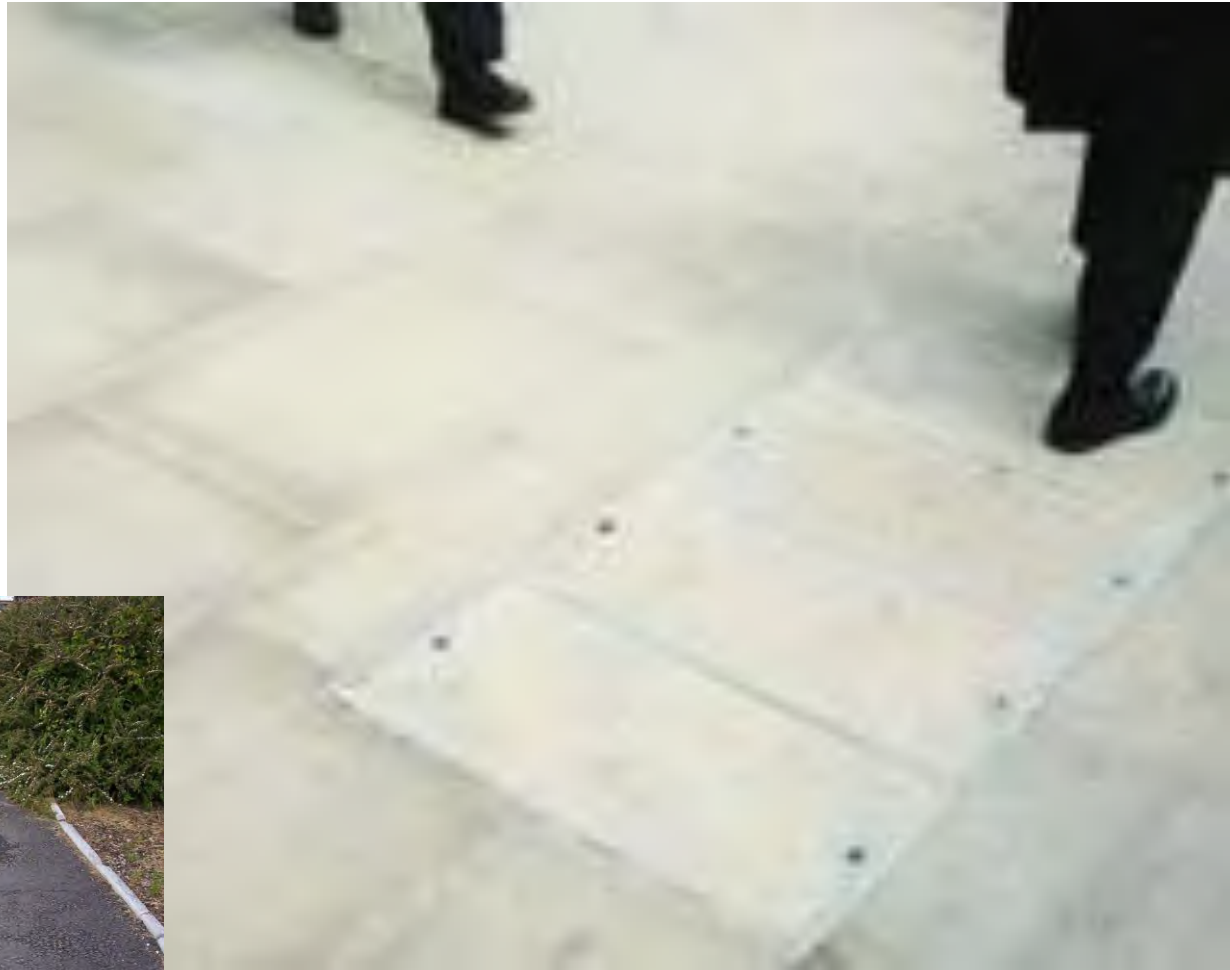
Controlled crossing points should be provided at strategic locations





Design Requirements

Footway surfaces should be smooth, even, slip resistant and have minimal crossfalls





Design Requirements

Pedestrian routes should be clearly distinguishable from adjacent areas, either by a change in height, a distinctive change in texture, or a physical barrier





Design Requirements

Pedestrian routes should be of an adequate width and free from any obstacle





Design Requirements

Street furniture should be appropriately designed and located





Design Requirements

Lighting levels should be adequate and evenly distributed, avoiding glare and reflection





Design Requirements

Vegetation should be planted and maintained so that it does not encroach onto pedestrian routes





Design Requirements

Bicycle and motorcycle parking facilities should be located so that riders are not tempted to ride on pedestrian areas





Design Requirements

Major hazards
should be
protected by a
handrail and lower
tapping rail





Design Requirements

Contrasting tones and textures should be used to provide information to visually impaired people





Design Requirements

All works should be properly guarded and temporary routes clearly and safely designated





Design Requirements

Signs should be high visibility and where appropriate tactile and properly designed and located





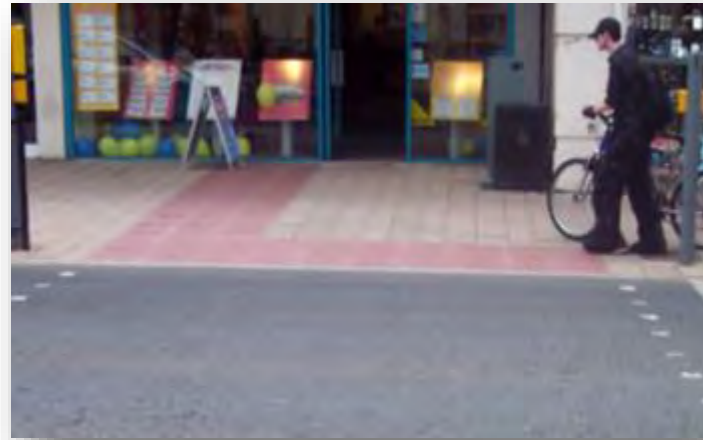
Types of surface

- There are 7 different types:
 - Blister Surface
 - Corduroy Surface
 - Platform Edge (off-street) surface
 - Platform Edge (on-street) surface
 - Segregated Shared Cycle Track/Footway Surface
 - Guidance Path
 - Information Surface

Blister paving at a controlled crossing



- Good practice at a controlled crossing, red in colour though that might change in revised guidance
- The blister paving goes back to the building line which runs across the line of travel for a blind or partially sighted pedestrian to pick up and find the control box





Blister at an uncontrolled crossing



Uncontrolled crossing at a junction.



← Uncontrolled crossing with a central island



Corduroy – hazard warning

- Corduroy hazard warning surface – commonly used at the top and bottom of steps and to warn of changes ahead





Platform edge off-street



Platform edge (off-street) warning surface – used at railway stations to indicate you are close to the edge of the platform.

Segregated shared cycle track/ footway surface



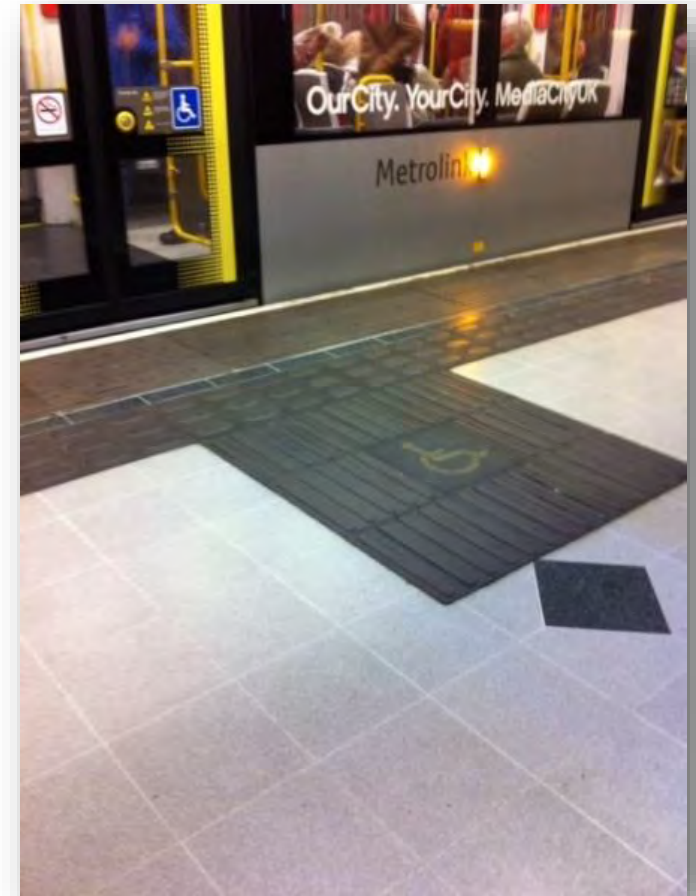
- Segregated shared cycle track/ footway surface and central delineator strip – used to separate the pedestrian and cyclist on a shared route. The ladder like layout is the pedestrian side and the tram-like layout for cyclists.



Lozenge paving - Platform edge on - street



- Platform edge
- (on-street) warning surface – used at tram stops to indicate you are close to the edge of the platform.

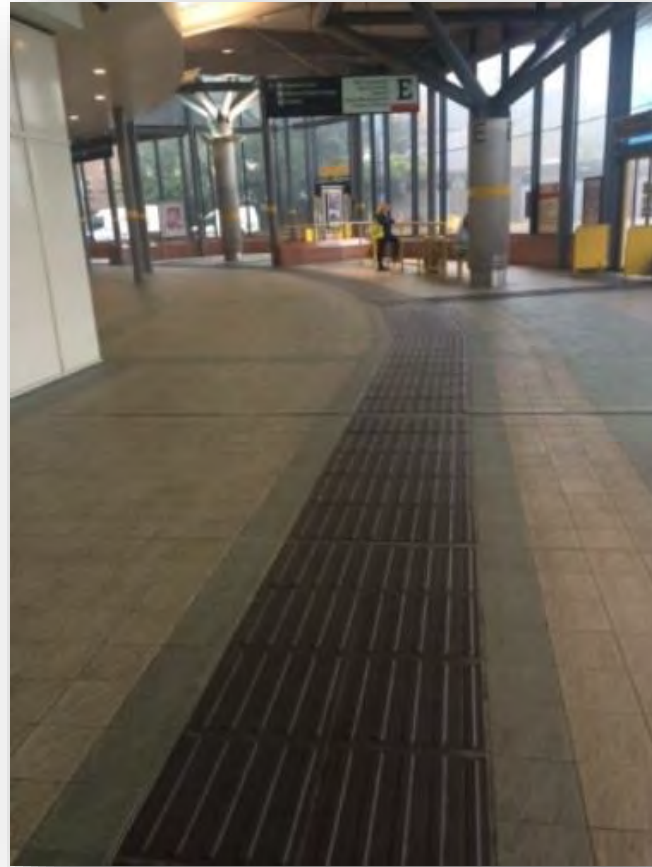


Guidance paving

GUIDE
DOGS



- Guidance path surface – used to guide blind and partially sighted people along a route





Low-tech: contrast

- Majority of VI people have some residual vision so contrast can aid navigation and orientation
- DfT guidance requires red blister at controlled crossings but it does not always contrast well with surrounding surfaces



Low-tech: contrast

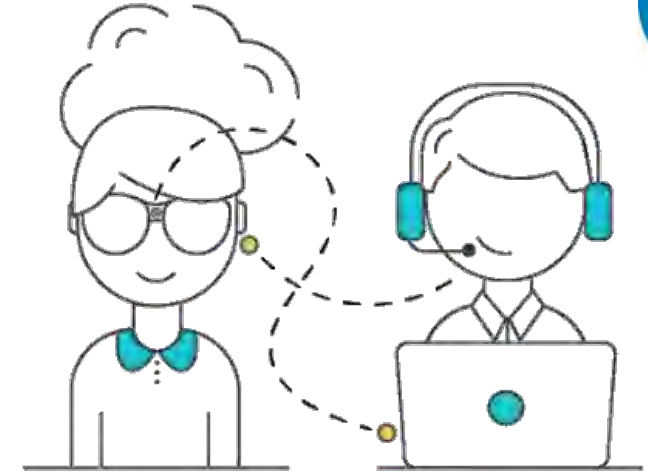
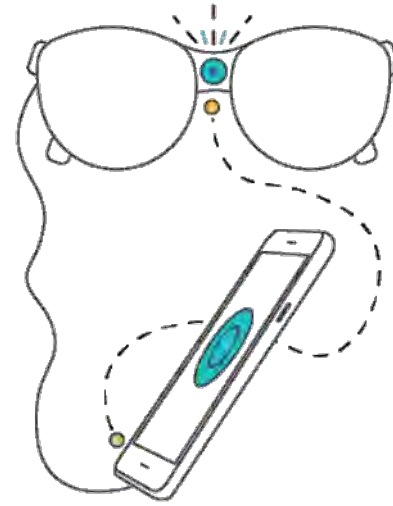
- Stakeholders already agree that contrast is more important than colour
- DfT announced its intention to revise the guidance in 2014 but there has been no progress





High-tech:

- Wearable Technology –
 - Augmented Reality
 - Virtual Reality
 - Glasses
 - Haptics
 - Watches
 - Headphones



High-tech:

- Microsoft soundscape
- Developed in partnership
- Has uses beyond the sight loss community being truly inclusive in its design
- An additional navigational aid for our customers

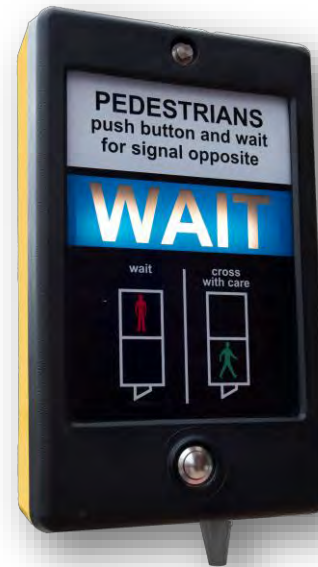




Low-tech/High-tech fusions:

- The humble pedestrian crossing with a tactile spinning cone requires the blind person to feel the control box whilst avoiding touching other pedestrians
- The 'Button' app enables them to use their smart device to initiate the crossing phase AND be alerted when the green man is on

(if the control box has the Bluetooth circuitry added)





Low-tech/High-tech fusions:

- One company has developed a resin based tactile paving solution into which chips can be embedded
- these can relay messages to the blind pedestrian via an adapted long cane with appropriate receiver



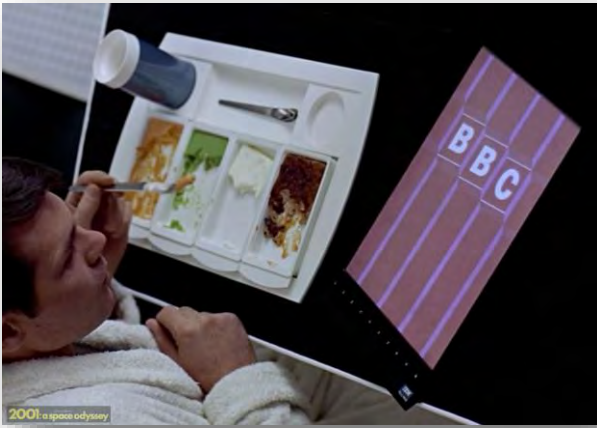


Low-tech/High-tech fusions:

- Imagine not only being alerted to the existence of a flight of steps but also being told how many steps it has?



Emerging and future trends





Emerging and future trends

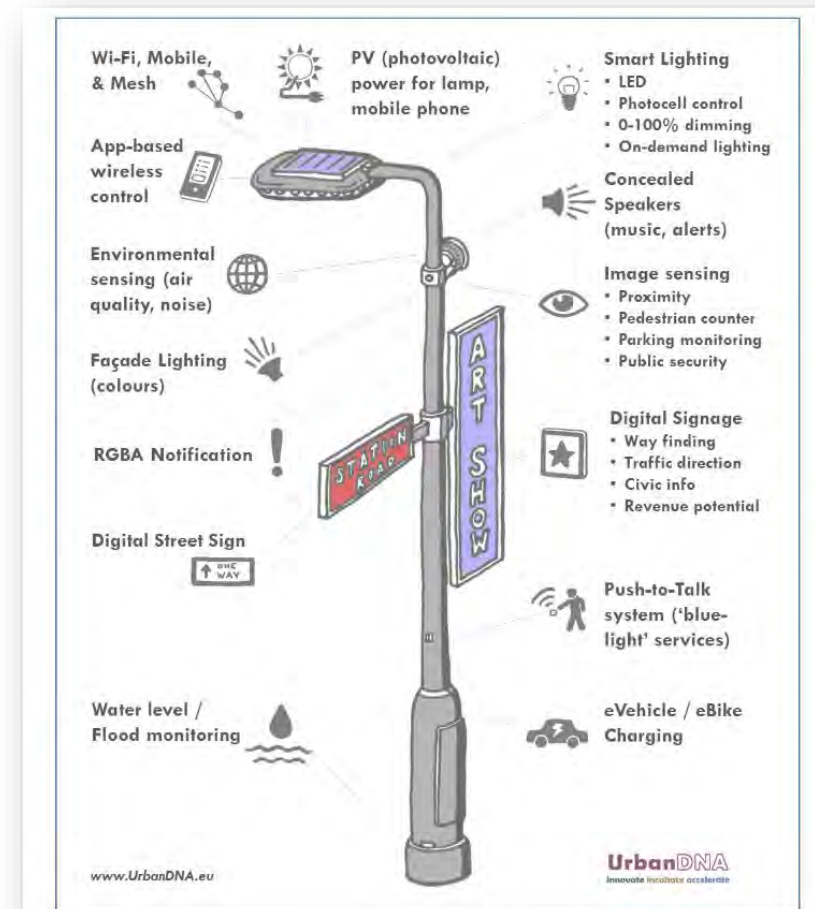
- Bombarded with data everywhere we go
- Autonomous vehicles
- Delivery robots and drones
- Electric cars with charging points
- Smart lampposts
- Smart crossings
- Smart cities generally





Emerging and future trends

- It's a lamp post, Jim but not as we know it.....
- There are 60-90 million lampposts across Europe; 75% of which are more than 25 years old. They consume between 20 and 50% of a city's energy budget.





Embedding inclusion in society

- In 2012 the nation embraced the positive example shown by the Olympic and Paralympic games
- Thought leaders and politicians talked openly of a 2012 legacy and a more inclusive society
- There is still a way to go though before we close the gap between “the talk” and “the walk”.



PRACTICE WHAT
YOU PREACH!



MIND THE CULTURE GAP



Exemplar streetscape – why? where?

- Whenever we are asked “what does good look like?” or “where can you recommend as a truly inclusive streetscape?”
we struggle to answer
- So we have decided to develop an exemplar
- Most likely site is at our National Breeding Centre near Bishops Tachbrook in Warwickshire
- Currently only the germ of an idea but we have visions of this being a centre to which people will come to see best practice

Inclusion Street





Inclusion Street

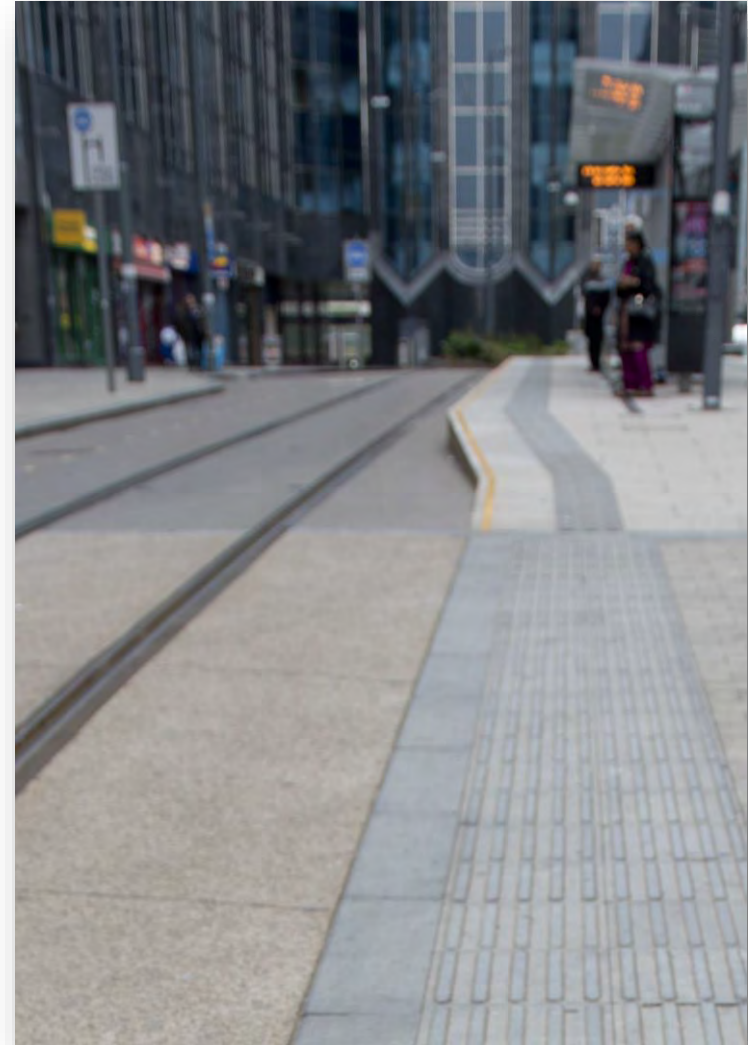
- A controlled crossing with all the associated requirements
- A segregated pedestrian and cycle route (this is one type of layout that all local authorities always seem to get wrong)
- Pavement with a dropped kerb and associated tactile





Inclusion Street

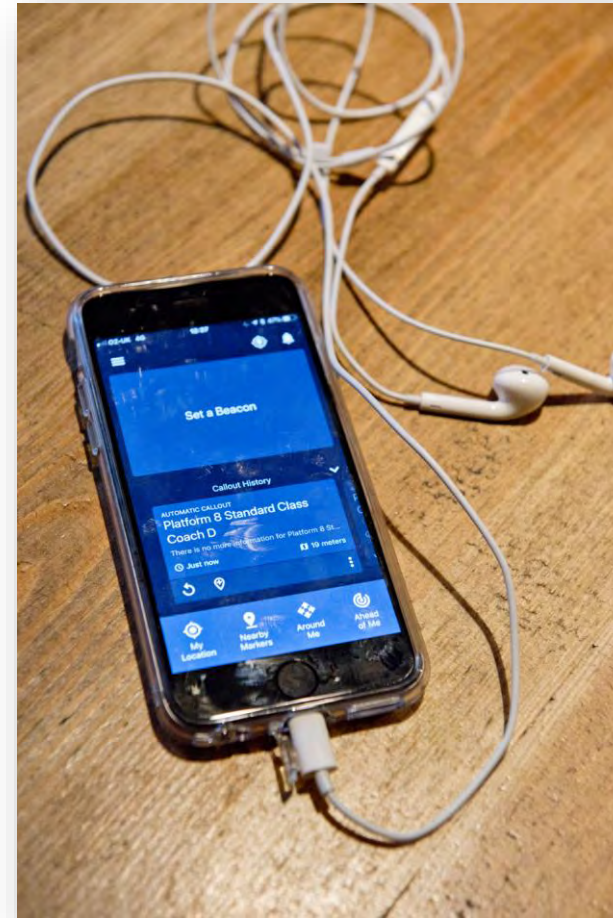
- The use of guidance paving to guide perhaps around the entrance of NBC
- Corduroy paving used to warn of hazards
- A bus stop
- Train station layout/tram stop





Inclusion Street

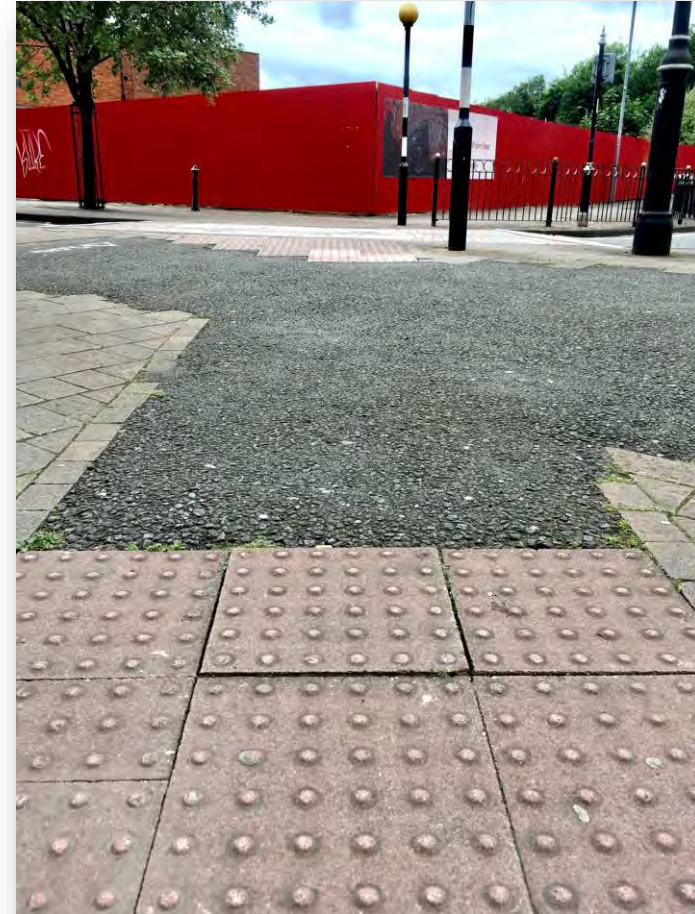
- Introduction of technology within some features e.g. crossings, street furniture and orientation around the area
- Indoor experience too – samples of different surfaces
- 3-D printed streetscape
- Virtual reality experience





What if we get it wrong?

- Remember the importance of the “stem” or “tail” on blister paving at a formal pedestrian crossing?
- A charitable explanation might be that the council is waiting for the filled in hole to settle before replacing the tactile
- But it does not look recent





What if we get it wrong?

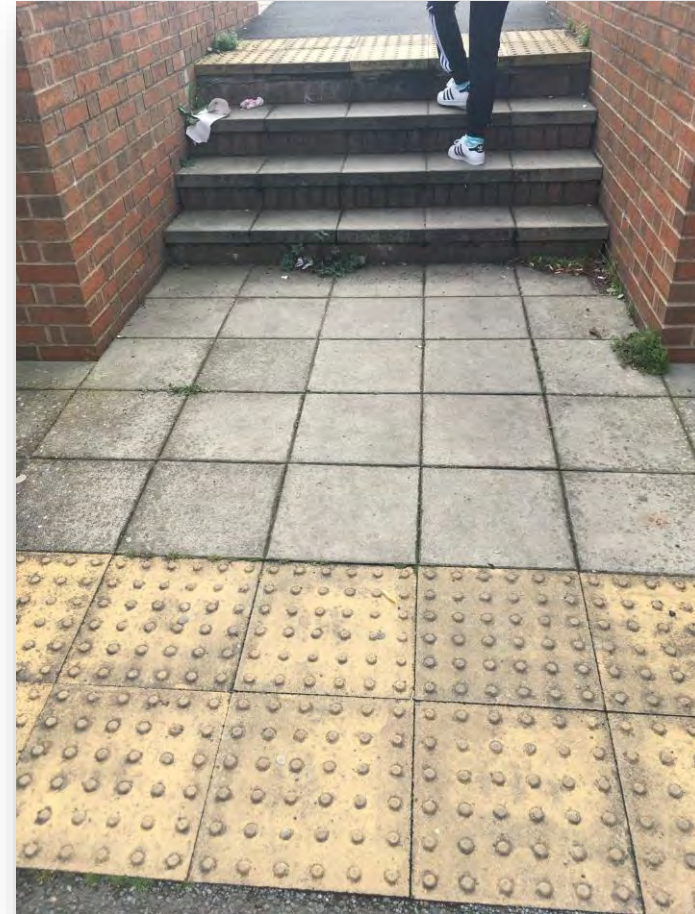
- Lack of appropriate tactile or that which is badly laid can be disorientating or even dangerous





What if we get it wrong?

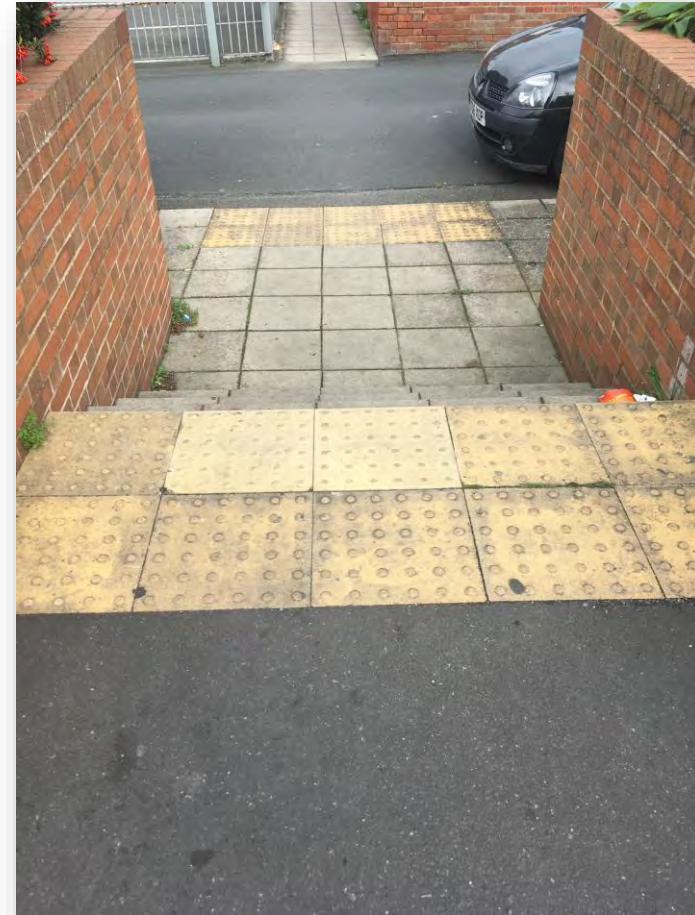
- In this example we see blister paving inappropriately laid at the top of this staircase
- No tactile at the bottom of the steps
- But blister appropriately laid at the informal crossing





What if we get it wrong?

- The same steps (and crossing point) viewed from the top
- Crossing the road at the bottom takes you to a narrow path....





What if we get it wrong?

- This is what you find at the other end of that narrow path
- There are many such examples around of wild inconsistency





What if we get it wrong?

- And as for shared surfaces.....

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'Shared' road schemes paused over dangers to blind people

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Plans for new "shared-space" road schemes are to be paused over fears they are "dangerous and difficult to navigate" for visually impaired people.

Shared spaces try to make drivers take more care by removing traffic signs, pedestrian crossings and even kerbs.

But Transport Minister Nusrat Ghani said they "just don't work" for blind and partially-sighted people.

The government has told councils to "pause" schemes which are being considered or designed.

She told the BBC shared spaces meant visually impaired people did not have "the confidence they need to enter those communities and city centres where they need to share a space with someone driving a car."

Dozens of streets have become "shared spaces", where the areas that pedestrians and traffic can use are often at the same level or in some cases not delineated at



Let's create an inclusive world

- By working together we can foster understanding, nurture the generosity of spirit referred to by CAGE and ultimately create a society that works for everyone
- Are we all up for that?





Thanks for listening

Questions?
(If there is time!)