Challenges in the Built Environment for Vision Impaired People

Insight Angels
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Content

Introduction

The built environment touches all aspects of life, including the buildings we work in, the pavements, roads and bridges we rely on to move around, and the recreational spaces we turn to in our leisure time. In recent years, the United Kingdom has seen significant shifts towards more pedestrian and cyclist friendly city centres, the introduction of new street furniture, and an evolution in travel modes with additional public and private transport options such as trams, electric bikes and scooters.

While these developments have some well evidenced advantages, they can also create real challenges for people with vision impairment. Navigating the built environment with ease impacts our ability to lead our lives to the fullest, and yet vision impaired people face considerable barriers that many others tend not to contemplate, some of which have been exacerbated in recent times. Obstacles on the pavement, lack of accessible navigational cues and undifferentiated spaces are just some of the elements that can create an overwhelming and disorientating experience.

It is critical that people with vision impairment, have a voice at the planning table so that local environments can be adapted with their needs in mind. This is even more evident in light of the Covid-19 pandemic which has created brand new mobility challenges for people with vision impairment, not least the redesign of public spaces to allow for social distancing and new opportunities for socialising.

In March 2021, Guide Dogs, a leading sight loss charity in the United Kingdom, commissioned a study among vision impaired adults to better understand their lives and the way different features in our streets and on public transport affect their

orientation and mobility outside the home. Based on the study, this report summarises the key challenges they face.

The specific objectives of the study were as follows:

1. To identify and evidence how the built environment, and different features within it, impact on the lives of people with vision impairment, including their orientation, mobility and wellbeing.
2. To prioritise the built environment features that are particularly problematic for people with vision impairment.

It is hoped that this report will lead to a better understanding of the needs of vision impaired people and an informed view on the priority of changes required.

Executive Summary

It is vital to consider the needs of a wide range of users in the development of local communities and environments. This report highlights on the specific needs of people with vision impairnent in particular, who often struggle more than other users to adapt to physical changes they encounter outside the home. By raising these issues, it is hoped they can be factored into local built environment planning on a more consistent basis.

Improvements in the area of mobility are widely considered by vision impaired people to have significant potential to improve their quality of life. The study highlights that a significant minority of vision impaired people are not confident moving around outside their home, and half do not manage to get out as often as they wish to. This has an impact on their independence and self-identity, with the result that too many cannot partake fully in community life.

There is much that can be done to improve this situation. A first priority is to address **street clutter and obstacles** such as bins and advertising boards, as well as vehicles parked on the pavement. All of which present significant challenges for navigation and a risk of injury. Findings demonstrate the need for stronger enforcement of parking restrictions, more thoughtful setting out of temporary obstructions and guidelines for local residents and businesses who may have cause to place items on pavements.

A second priority area to address is **the street environment**, which refers to built-in elements such as pavements and cycling paths, and how other road users move in these spaces. Vision impaired people feel that many recent changes in the street environment have created additional difficulty for them. A particular concern is shared pedestrian and cycling routes on the pavement, which can make vision impaired people feel more vulnerable.

Additional issues are level surfaces between the pavement and the road, which remove a much relied-upon navigational aid, and floating bus stops where pedestrians must cross over a cycle track to reach the pavement upon alighting from a bus. All of these features can reduce safety and increase danger and potential injury for people with vision impairment.

In addition to the vulnerability they feel, increasing numbers of electric vehicles are a key source of anxiety - vision impaired people are far less able to detect their presence because they are quieter than traditional vehicles. Safe crossings, tactile paving and pedestrianised streets are part of the solution, but these need to be more consistently applied than is the case today.

A third priority area is **public transport**, which presents specific signage/wayfinding difficulties for those who are vision impaired. The primary issue is a lack of

navigational indicators at stations, stops, and on transport itself, but additionally, more reliable assistance from trained staff would ease several difficulties. If these concerns were addressed, public transport could significantly enhance mobility opportunities.

There is a strong sense that **greater general awareness of and sensitivity towards vision impaired people** would go some way to preventing or easing the many challenges they encounter. Education and training have a key role to play in fostering empathy, enabling people with vision impairment to feel represented, and providing support when it is needed in public situations.

In view of the wide-ranging and complex issues that need to be addressed, vision impaired people feel the responsibility is **primarily on the government to lead on the necessary changes**. At local government level, planning needs to consider the voices of vision impaired people alongside other constituents, and work with local planning or consultative groups; businesses and services to better support them.

National government could lay out the agenda and necessary spending for a more inclusive society that prioritises and facilitates mobility for all, consulting wherever relevant with expert voices from those with lived experience as well as the health and social charities which represent keystakeholder groups.

Mobility Matters

A lack of mobility hampers independence and impacts mental wellbeing of vision impaired people

In today's world, mobility outside the home can present serious challenges for vision impaired people, which in turn affects the extent to which they are able to access of amenities, maximise their enjoyment of life and contribute to local economies.

Around 2 in 5 (38%) vision impaired people are not confident moving around outside their home

Our study explored how vision impaired people feel about navigating public spaces, public transport and assessed the degree to which different factors support or impede their mobility. These questions were framed to refer to life prior to the Covid-19 pandemic, to ensure that the findings would be generalised.

"Confidence and self-esteem in general affect the way I can get out and about".

A variety of factors play into this lack of confidence which this report details in subsequent sections, but it is worth noting the practical and emotional impacts this can have on many aspects of life and self-identity. From a practical perspective, vision impaired people may be less able to access conveniences, social activities, or exercise, or contribute to parts of community life on a regular basis.

"For me, it takes a lot more energy to go out. I have poor sight / nasal vision for many years. I really begin to struggle if there are more cycles or street furniture to negotiate. In general, most people are kind, others are objectionable and rude"

From an emotional perspective, a vicious cycle can be maintained whereby over time, low confidence moving around outside the home results in going out less, in turn resulting in decreased familiarity with the local environment, decreased social ease and a further undermining of confidence. Several testimonials suggest a correlation between lack of confidence navigating the local environment and feelings of low self-esteem.

A large proportion of vision impaired people do not get out as often as they would like to

As a result of this lack of confidence, a large proportion of vision impaired people stay at home on occasions where they would prefer to be active in some way outside. While routines, needs and desires vary from person to person, overall half of the respondents said they never, rarely, or only sometimes get out as often as they would like to. Only 37% of vision impaired people manage to leave the home by themselves on a daily basis.

A loss of independence

Lack of confidence navigating the local area can do a great deal of damage to independence, with 1 in 4 vision impaired people not feeling able to go out by themselves at all and the majority having to rely on a spouse, partner, or other family member for support. For those who venture out alone, it can be with some trepidation in view of the many challenges which this report will subsequently outline.

Mobility is a critical focus for the quality of life of vision impaired people

In the context of several other topics, improvements in the area of mobility are widely considered by vision impaired people to have significant potential to improve their quality of life.

Proportion who say each aspect is important to improving quality of life

Table with two columns and ten rows, plus image showing percentages

Technology accessibility features	89%
Specialist equipment in the workplace for people with vision impairment	83%
Benefits to maintain a decent income	81%
Reduction of obstacles on pavements and street clutter	81%
Better route planning and navigation aids	78%
Design and accessibility of public buildings	74%
Specialised education and support for young people with vision impairment	72%
Opportunity to participate in more sporting/leisure activities	70%
Emotional support to come to terms with vision impairment	69%
Support to apply for jobs	59%

Street clutter and obstacles on the pavement is an area where particular attention is needed, with 81% of vision impaired people stating that improvements in this area are extremely or very important to improving their quality of life. A high proportion also state that better route planning and navigation aids such as GPS systems, and better design and accessibility of public buildings are key areas - 78% and 74% respectively rate these factors as important.

A number of additional, specific environmental elements were explored in the study, and the next sections pinpoint priority areas for action.

Key priorities to address in the built environment

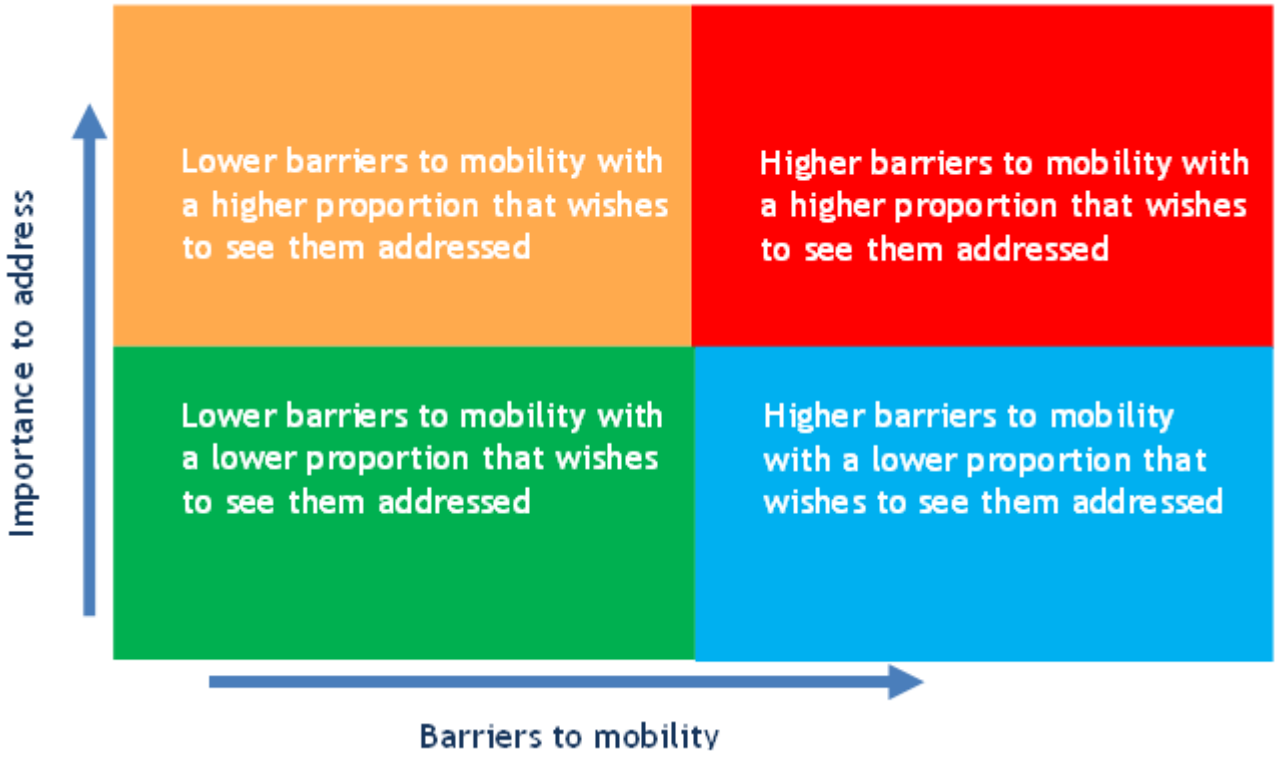
In the study, vision impaired people were asked to rate 35 individual aspects in terms of impact on their confidence to go out independently. They were also asked which ones they would prioritise for improvement.

The 35 aspects covered various themes, including:

- Street design/clutter
- Vehicles
- Public transport
- Other public space users

Proportion who say each item is a significant barrier shown as table with two columns and 20 rows plus image showing percentages.

Parking on pavement	66%
Lack of availability of safe road crossings	64%
Ability to know what transport to get on	61%
Uneven or damaged pavement	61%
Street clutter	60%
Shared pedestrian and cycling routes on the..	59%
Navigation in public buildings	58%
Bicycles and scooters	56%
Shared spaces (level surface between...	54%
Speed of traffic	54%
Crowds in places where I need to go	52%
Volume of traffic	51%
Crowding on public transport	49%
Consideration given by cyclists	49%
Presence of street furniture	46%
Electric cars or buses	45%
Consideration given by motorists	45%
Other people's attitudes to people with vision...	41%
Announcements made on transport	40%
Large open indoor spaces	40%



The terms of impact have been grouped into four categories based on the levels of barriers and proportion that want them addressed.

- **Higher barriers versus higher proportion**

Impacts falling within this category represent the most significant barriers to mobility as well as being cited by a large proportion of vision impaired people as high priority to address. These impacts should be tackled as a priority.

Street clutter, obstacles and certain specific aspects of modern street design can present significant challenges to everyday navigation for vision impaired people, and these aspects are strongly present among the top priorities to address, listed in full below.

  - Lack of availability of safe crossings
  - Uneven/damaged pavements

- Parking on pavements
- Ability to know what buses/trains/trams to get on (e.g., knowing bus numbers, accessing notice boards.)
- Street clutter (e.g., advertising boards, bins, etc.)
- Shared spaces where there is a level surface between roads and pavement
- Shared pedestrian and cycling routes on the pavement
- Crowds in places where I need to go
- Bicycles and scooters, including electric ones
- Street furniture, e.g., benches, tables, bollards, railings, and bicycle stands

- **Lower barriers to mobility with a higher proportion**

Impacts falling within this category are lower barriers to mobility, but a relatively high proportion of vision impaired people wish to see them addressed as priority. Tackling these aspects would be welcomed.

Practical assistance when using public transport, and more supportive attitudes from others in general, fall within this category. While these aspects do not represent the most significant barriers to mobility, improvements would be welcome.

- Announcements made on buses/trains/trams to know where you are
- Other people's attitudes to people with vision impairment
- Availability/reliability of assistance from staff on public transport
- Cycle lanes on the road or separate from the pavement

- **Higher barriers to mobility with a lower proportion**

While these categories are significant barriers to mobility, they are not cited as top priorities to address by vision impaired people

A number of aspects relating to the presence of crowds and other road users fall within this category. While not currently indicated as top priorities to address, thought should be given to these aspects in the planning of built environments given the impact they can have on the confidence of vision impaired people.

- Crowding on public transport
- Consideration given by cyclists
- Navigation in public buildings (e.g., announcements, accessible boards, etc.)
- Speed of traffic
- Electric cars or buses
- Volume of traffic (number of cars/vehicles on roads and streets I travel on)
- Consideration given by motorists
- Floating bus stops (i.e., bus stops with a cycle track to cross to get to the pavement)

- **Lower barriers to mobility with a lower proportion**

These categories are not generally considered to be significant barriers to mobility and are also not identified as priority improvement areas.

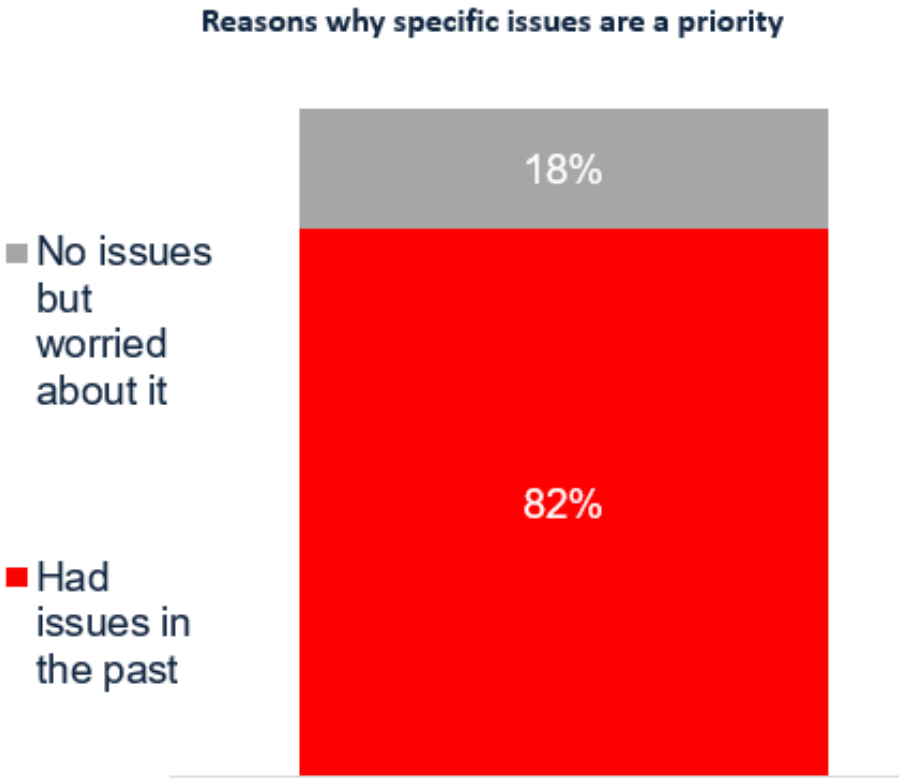
This category includes some 'wider' issues such as public transport cost and availability, and fear of crime, in addition to certain specifics of using public transport and public spaces. While not unimportant per se, these are not top priority issues when it comes to improving mobility among vision impaired people.

- Availability of public transport where you live
- Crime/criminal activities
- Finding seats on public transport
- Consideration given by other public transport users
- Cost of public transport

- Access to public buildings
- Electric trams

The barriers identified are based on real experience

It is important to note that the priorities identified by vision impaired people are, for the most part, based on actual experience rather than any hypothetical concern. 82% of vision impaired people say that they have personally encountered the issues they have highlighted – they can therefore vouch first-hand for the impact of these barriers on their everyday lives.



The next sections will explore three critical themes in more depth: street clutter and obstacles, the street environment and public transport.

Critical theme 1: Street clutter and obstacles

Several of the most important barriers to mobility outside the home relate to clutter and obstacles on the pavement and in pedestrian areas. Indeed, the number one concern among the 35 overall aspects included in the study was vehicles parked on the pavement, 66% of people with vision impairment have stated that it is something that impedes their confidence to go out independently. General street clutter is also among the top overall barriers.

Vehicles parked on the pavement are a significant hazard, as well as bins and trees

"Pavement parking. Although bin day adds to this, I believe that if people didn't park on pavements, the bins would not be as much of an issue on their own."

Figure 1 A van parked on the pavement reducing the width for pedestrians.

"Pavement obstructions that are temporary, a-boards, parked cars, road works, scaffolding recycling boxes."

Figure 2 A boards and seating obstructing the pavement for pedestrians.

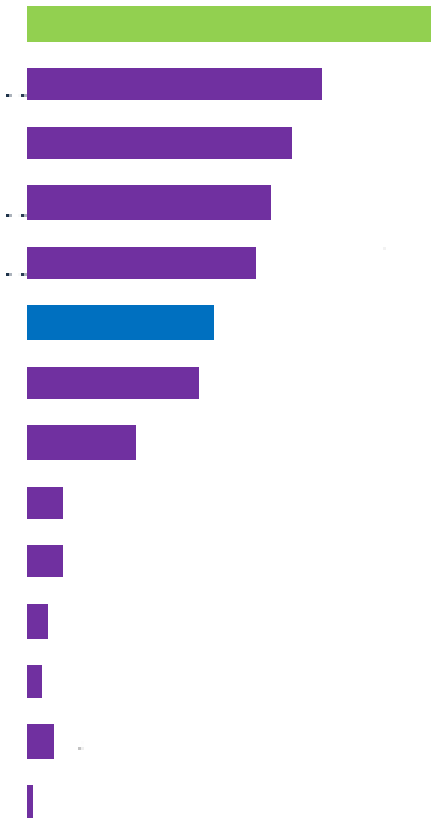
"Positioning of street furniture, wheelie bins left on the pavement, uneven pavements, overhanging branches. These things are a hazard even when walking with a guide."

Figure 3 Bins, trolley and overflow of shop stock on the pavement

In order to establish a full ranking of street obstacles in terms of their impact, respondents were asked to select up to three of the most challenging physical obstacles from a list of twelve. 56% of vision impaired people selected pavement parking among their top three barriers, followed by bins and refuse bags (41%), trees (37%) and temporary obstructions such as scaffolding (34%).

Most challenging physical barriers shown as table with two columns and 14 rows plus image showing percentages.

Vehicle(s) parked on the pavement	56%
Wheelie bins/ other bins/ refuse bags/	41%
Trees (either on pavement or overhanging)	37%
Temporary obstructions (scaffolding/	34%
Street furniture (bollards, lampposts,	32%
Moving bicycles/ scooters (incl electric)	26%
Advertising boards	24%
Tables/ chairs	15%
Traffic barriers/ traffic signs	5%
Bicycle racks/ stand	5%
Bus/tram stop/ floating bus stop	3%
Taxi stands	2%
Something else	4%
None of these	1%



In some instances, items which may seem harmless, appealing or helpful to others can present a challenge for someone with impaired vision. The placement of items such as advertising boards and tables outside eating and drinking venues were mentioned by a high proportion of vision impaired people as major obstacles.

These findings demonstrate the need for stronger enforcement of parking restrictions, more thoughtful setting out of temporary obstructions, and guidelines for local residents and businesses who may have cause to place items on pavements.

Moving bicycles and scooters on the pavement are also a concern

Figure 4 Photo of a bike chained onto a lamppost in close proximity to an A board obstructing the pavement

"Cyclists and users of other types of small unpowered vehicles, plus electric scooters and hover boards, need to be completely segregated from pedestrians."

"I also feel quite strongly about e-scooters, the trials and the increase of privately owned scooters. There is no enforcement of the rules in my area and they are ridden on the pavements most of the time."

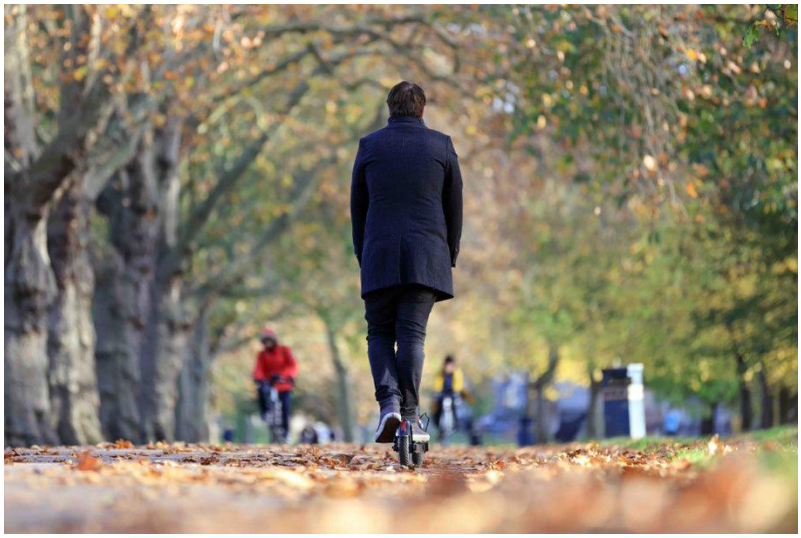
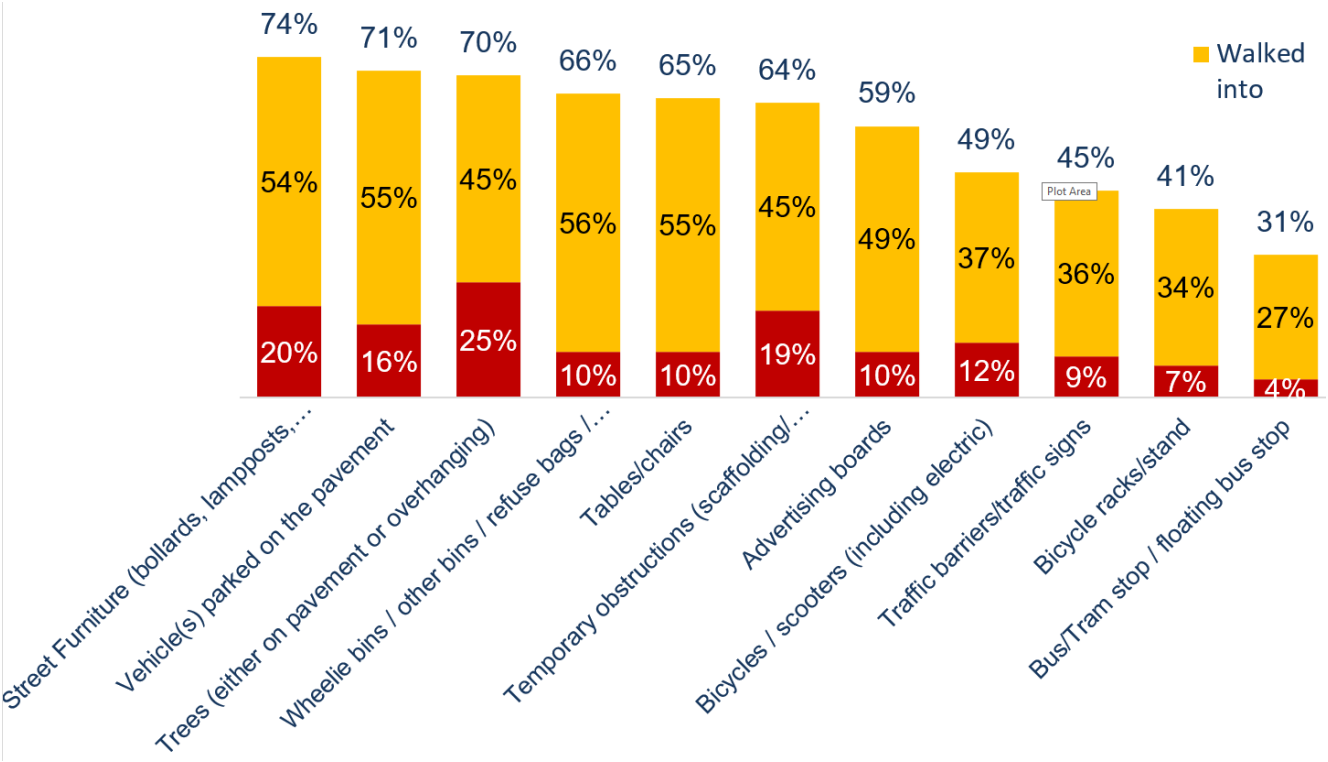


Figure 5 Photo of a man on an e-scooter riding through a wooded area.

People with vision impairment are concerned about moving bicycles and scooters on the pavement. 26% state this as one of their top three obstacles. In recent years, the growth in popularity of e-scooters has heightened such concern due to the relative speed at which they can move. Many vision impaired people perceive bicycles and scooters to be a serious hazard when ridden on the pavement and state the case for more monitoring and regulation to protect the safety of vision impaired people and indeed all pedestrians.

The risk of injury

As well as having an impact on the ease and confidence with which vision impaired people are able to navigate their local environment, street clutter and obstacles pose a real risk of personal injury. In the past year, a substantial majority of vision impaired people reported that they had walked into obstacles such as street furniture or vehicles parked on the pavement.



More seriously, a considerable number had been physically hurt: for example, one in four had been injured by trees on or overhanging the pavement, and one in five had been injured by street furniture such as bollards, lampposts, benches or railings, or by temporary obstructions such as scaffolding or roadworks.

Chart showing the percentage of vision impaired people who have been hurt or walked into obstacles.

Percentage of vision impaired people who have been hurt or walked into obstacles shown as a table with 4 columns and 12 columns.

Type of obstacle	Hurt by	Walked into	Total
Street furniture (bollards, lamppost etc)	20%	54%	74%
Vehicles parked on the pavement	16%	55%	71%
Trees either on pavement or overhanging	25%	45%	70%

Wheelie bins, other bins, refuse bags etc	10%	56%	66%
Tables, chairs	10%	55%	65%
Temporary obstructions like scaffolding	19%	45%	64%
Advertising boards	10%	49%	59%
Bicycles, scooters, (including electric)	12%	37%	49%
Traffic barriers or signs	9%	36%	45%
Bicycle racks or stands	7%	34%	41%
Bus or tram stops or floating bus stops	4%	27%	31%

While awareness of everyday hazards is ever-present in the minds of vision impaired people, there is much potential to reduce the risk of injury through more thoughtful design of fixed elements in public spaces and greater consideration by other public space users.

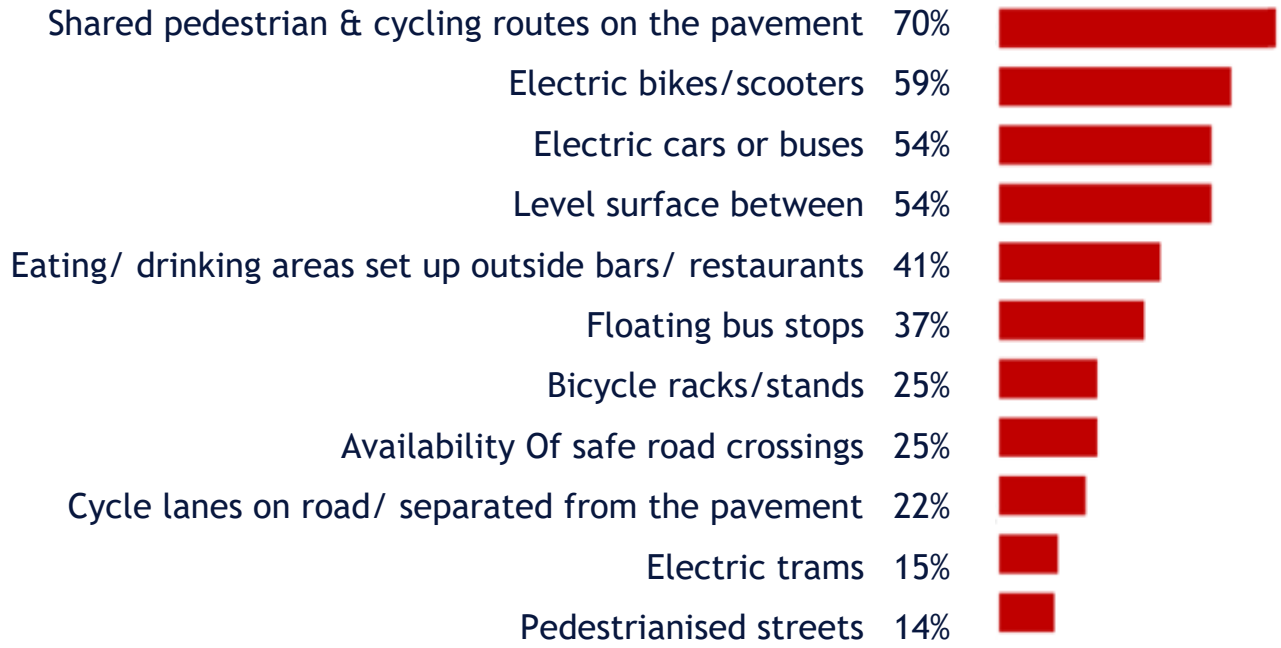
Critical theme 2: Street environment

Streets in the United Kingdom are changing to accommodate different types of transport, cyclists and other road users, as well as being modified to encompass more outdoor dining and drinking areas.

Vision impaired people generally feel that changes to the street environment are for the worse

In the study, respondents were asked to assess a number of features of the street environment in terms of their impact – either positive or negative - on confidence to go out. While all features garnered both positive and negative views, the overall tendency was negative.

Percentages of impact on the different features within the built environment, table with 2 columns and 11 columns plus image



The most damaging aspect: shared pedestrian and cycling routes

70% feeling less confident to go out as a result of shared pedestrian and cycling routes

"Creating walking and cycling pavements, the shared areas, it reduces my confidence".

"I would like to see a clearer distinction between paths, roads and cycle paths."

Figure 6 Photo showing physical upstand separation between cyclists, pedestrians and cars

Some pointed out that in the absence of any clear delineation, maintaining safety in these spaces often needs to be achieved via eye contact, leaving vision impaired people extremely vulnerable. Cycle lanes which are separated from the pavement or on the road would generally be preferred.

The emergent challenge of electric vehicles

The increasing number of virtually silent electric cars, bikes and scooters, some of which move along the same paths as pedestrians, is raised as a key source of anxiety for over half of people with vision impairment. This can compound fears when using shared spaces, as vision impaired people are far less able to detect dangers such as these. A common request is that these vehicles should be fitted with noise as standard, and that there should be more guidance and regulation relating to their use on the pavement.

> *"Electric cars are my biggest worry as they are silent - or at least I think they are as I cannot hear them".*

"Stricter rules and regulations around silent vehicles including cyclists E scooters and electric cars to keep them off pavements, training required and that they make noise."

Level surfaces between pavement and road remove a key navigational aid

Vision impaired people, and – for those who have them - their guide dogs, rely on a range of sensory aspects in order to navigate.

Unfortunately, a number of these changes create challenges for vision impaired people which are more than a simple inconvenience or need for adjustment – in some cases they severely hinder confidence to go out independently. In this section, we examine which changes are causing the most serious problems.

54% cited level surfaces reduces their confidence

Vision impaired people, rely on a range of sensory aspects in order to navigate. One of the most fundamental of these is a change of level between the pavement and road, indicating a stopping point. Modern re-paving of urban areas featuring level surfaces can cause issues for vision impaired people and for their dogs, particularly in unfamiliar places: 54% cited this as something that reduces their confidence to go out.

Floating bus stops are a significant issue for those who have encountered them

61% state that they reduce confidence in going out independently

Figure 7 Photo of a cycle track running between the building line and bus stop

Many people have not yet encountered the relatively modern development that is floating bus stops – a bus stop where upon alighting there is a cycle track you must cross in order to reach the pavement. However, among those who *have* encountered them, 61% state that they reduce confidence in going out independently, a particularly high proportion. The need to cross over a cycle path with no safe crossing point, when vision impaired people find it difficult or impossible to detect cyclists moving along it, creates understandable anxiety.

Safe crossings, tactile paving and pedestrianised streets are part of the solution, but need to be more consistently applied

"Better and more ubiquitous safe road crossings."

"More time to cross roads at pedestrian crossings and consistent placing of rotating tactile cones on crossing posts."

More ubiquitous safe road crossings, wherever possible with pedestrian operated signals, audio cues and a generous amount of time to cross, would make a positive

difference to vision impaired people – lack of these is the second most commonly cited barrier to independent mobility.

Additionally, pedestrianised streets and tactile paving are welcomed, however, current inconsistency in design can undermine their impact – for example, tactile paving cones are not always consistently positioned with respect to crossings, and audio cues are only sometimes available at pedestrian crossings.

Critical theme 3: Public transport

Public transport ought to open up a wide range of out-of-home activities for those unable to use other modes of transport, helping to expand their independence and inclusion in society. However, the reality is that taking journeys via public transport is often problematic to the extent that it is not accessible for many vision impaired people. Thus, while not cited as a barrier to independence to quite the same extent as the street environment or street clutter, public transport represents an untapped opportunity to broaden the independence of vision impaired people simply by addressing their fundamental needs.

The biggest barriers are driven by the ability to know what transport to take and lack of announcements

Illustrating the extent of this untapped opportunity, the study reveals that half of vision impaired people do not travel on public transport as much as they would like.

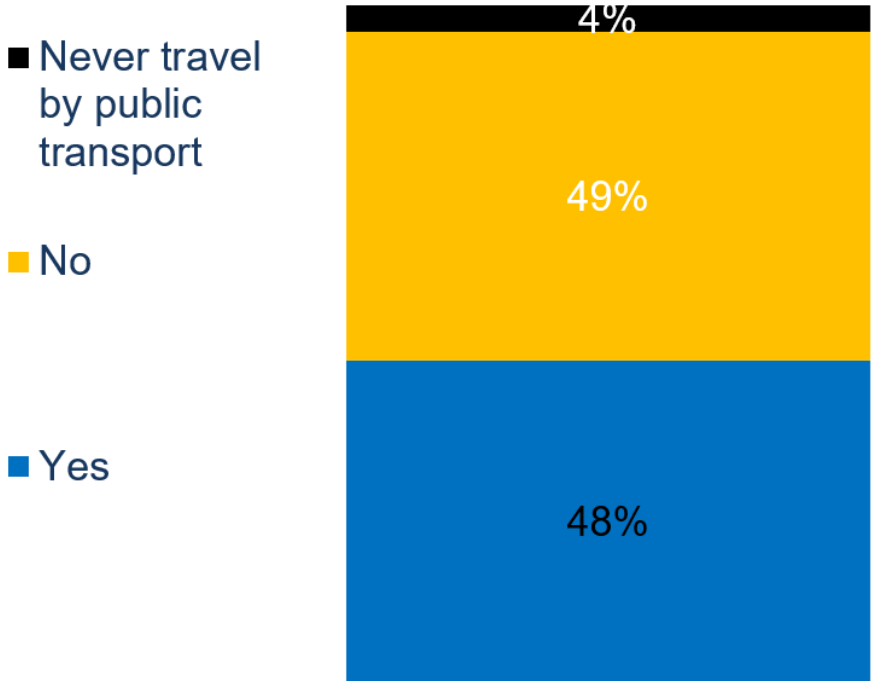
The primary issue: lack of navigational indicators

> *"Announcements on buses, trains and trams to let you know wherever you are, also timetables at stops made readable, audible".*

"All buses and trains to have talking announcements that are also checked to make sure they are working correctly"

The most cited problem is an elemental one – the ability to know what transport to get on – cited by 63% as a top three barrier to using public transport. Following this, the second biggest barrier is a lack of announcements to indicate where you are. For some, the absence of sufficient navigational cues can make using public transport fraught with anxiety and contingent on the goodwill of strangers. For others, it simply makes it inaccessible.

Half of vision impaired people do not travel on public transport as much as they would like



Percentages on whether travel by public transport is as much as you like.

The importance of accessible cues

"My difficulties are…inability to read screens to see which platform the train leaves from and no one to help and inability to read numbers on buses and inability to know when I am at the correct stop. When trains are delayed or cancelled, there is no help available at most stations to find alternative ways of getting home"

"Bigger signage displaying train times and locations"

"Larger print timetables and labelling on the stop, and when bus stops temporarily not in use, really clear labelling not 8 feet off the ground."

"More electronic signs at the stops, in larger text"

And yet, these are highly addressable issues: respondents suggested that consistent, accessible information along with proactive announcements would alleviate their concerns to a considerable extent. In practice this would include:

- Audio/speaking cues while on transport and at stops and stations to indicate the service, direction, current location and any delays or changes.
- Bigger and clearer signage displaying service information and updates.
- Large print timetables.
- Assistance from staff in case of difficulty.

Experiential elements and in-person assistance also matter

A significant minority of study respondents flagged that finding a seat and getting on and out of buses/trains/trams presented them with considerable challenges.

> *"Assistance from staff should always be available, but they should be responsive to my needs. I should be able to refuse assistance if offered, and adapt the help offered, for example be guided to the back of the train and not insisting that I go to the front".*

While ensuring accessibility of design is critical, the availability of staff to provide hands-on support and information, could certainly ease these difficulties as well as helping to facilitate a more considerate overall environment. Comments from respondents suggest too often, staff are not available or do not appear to be trained to help those who struggle due to an impairment.

> *"Improve the training and consistency of travel assistance provided by staff. For example a guarantee that you will not be left on a train or platform and miss your destination/change".*

"Better informed and trained staff on disability/equality etc"

> *"Having reliable and friendly assistance when it is meant to be there i.e. I've booked it with trains and more often than not when you get to a station the person that is meant to be helping you get on and off the train doesn't appear"*

Designated seating is commonly called for

Consistently available designated seating areas are commonly called for, both for vision impaired people and their guide dogs when relevant. The experiences recounted highlight that when available, these areas are often taken up by prams or shopping bags rather than being prioritised for those who need them most. Another issue is that they are not always situated in the same position.

> *"Clear and very demarcated seating for me that I could guarantee would be in the same place on any bus or train that I could sit in with space for my dog, that would be prioritised for me rather than parents with prams or people with lots of shopping".*

> *"Disabled seats should be rigorously policed, so people don't feel they can use them for luggage, prams etc and that people are made to move if not disabled".*

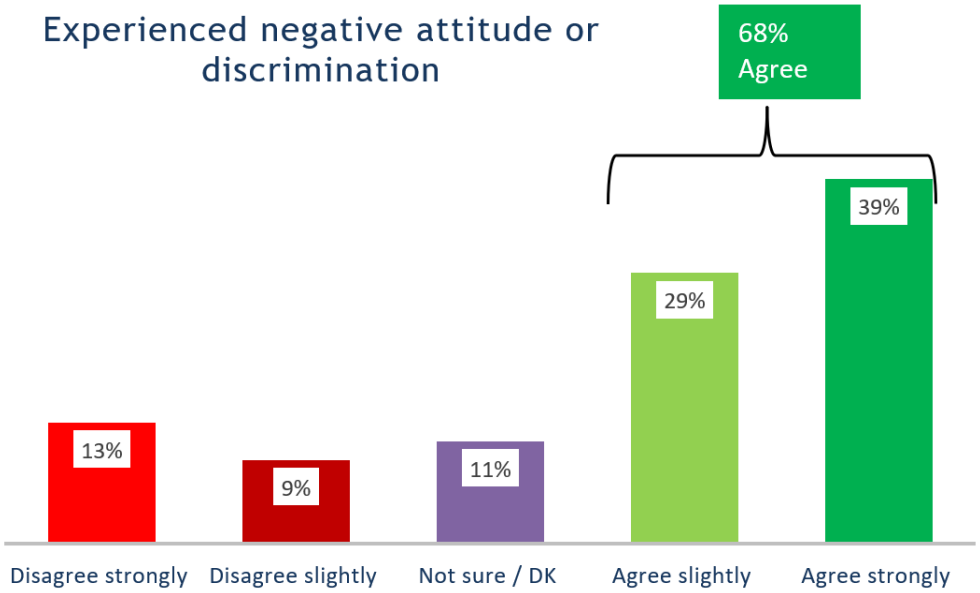
Among the challenges highlighted, low levels of consideration by other users have the potential to amplify many other concerns, particularly when transport is crowded. The theme of other people's attitudes is expanded upon in the next section.

What else will make a difference

Other people's attitudes to those with vision impairment can make an enormous difference to their lives and levels of independence, for better or for worse. It is alarming that over two thirds claim to have experienced negative attitudes or discrimination as a result of their vision impairment, and that 41% believe others' attitudes constitute a significant barrier to their mobility.

"Sometimes peoples attitudes towards a vision impaired person can be a big barrier towards going out. Young people working a Guide Dog will often get the 'oh are you training the dog?' comment or the 'oh you don't look blind' comment, as well as many other intrusive questions or comments. Sometimes the anxiety about having to fend off these questions and comments can stop me from going out, as mentally I don't always feel strong enough to defend myself".

More than two thirds have experienced negative attitudes or discrimination



Percentages on negativity and discrimination

Attitudes can also feed into poor levels of consideration given to vision impaired people - which appears as a concern in almost every area. Some examples drawn from the previous sections' themes are:

- When using public transport, non-disabled users not vacating dedicated seating areas for those in greater need.
- Motorists parking their cars on the pavement reducing the width of the pedestrian pathway.
- Cyclists and scooters assuming right of way or moving too fast on shared paths.
- Staff working in public buildings or on public transport who do not feel confident supporting the needs of vision impaired people.
- Taxis refusing guide dogs.
- Intrusive or misjudged questions from other people.

These attitudes and behaviours may not be in any way deliberate or malicious, but they can influence the outlook of vision impaired people in many different situations.

"Other people's attitudes and judgements. When I use the long cane, people assume I am completely blind. When I don't, they think I am fully-sighted. People don't always notice the long cane, people continue to walk towards me assuming I'll move away from the shore line (I don't)".

There is a strong sense that greater general awareness of and sensitivity towards vision impaired people would go some way to preventing or easing the many challenges they encounter.

Thus, in addition to addressing the physical environment, education and training is critical at a number of junctures:

- From a young age, via school and parents, fostering empathy for those who have impairments as well as those from differing backgrounds.
- Inclusive recruitment policies and practices among employers, with visible representation of those with impairments.
- Training for public servants and public-facing staff members, to provide understanding and support when serving someone who is vision impaired.

Conclusion

The built environment is vital for all, as it includes all aspects of life There has been a shift to creating more recreational places within the built environment.

For people with sight loss, a journey outside their front door is a holistic process; each aspect of that journey must integrate with the next seamlessly for them to be confident to travel independently.

However, the lived experience of people who are blind or partially sighted indicates that they frequently face numerous challenges when navigating within their local community; from identifying their location, knowing when they have arrived at their destination or simply being able to cross the road in safety.

Some of the traditional navigational aids have been removed or replaced, what is frequently introduced in place of these features does not make the environment inclusive meaning that it cannot actually be enjoyed by all. Having the right balance between attractiveness and inclusiveness is crucial in determining if the overall

objective is a success. These two things are not mutually exclusive, but both need to be considered.

There is a real opportunity to consider the needs of vision impaired people much more in the planning, design and ongoing management of local built environments.

To reduce street clutter and obstacles:

- Parking on pavements along with moving scooters and bicycles should be managed with guidance and regulation. Enforcement applied.
- Local authorities should take responsibility for promoting a clutter-free environment, educating residents and business and maintaining trees and bushes
- For consistency in the design and placement of 'A' boards within the built environment.
- Monitoring and regulating the use of 'A' boards would ensure that their benefits are maximised while the potential hazards are minimised.
- All pedestrian crossing points over cycle tracks running behind the bus stops to have an auxiliary aid, such as an audible and/or tactile signal, which indicates to someone with a vision impairment when it is safe to cross the cycle track to access the bus stop/island.
- Where a floating bus stop is located along a wide pedestrian footway or pavement, guidance paving is used to guide someone with sight loss to the blister paving on the crossing point to get onto the bus.

To improve the street environment:

- Shared spaces should have clear demarcations for different users, maintaining different levels between the pavement and the road
- Safe crossings, pedestrianised streets and tactile paving should be more consistently available/applied
- Tactile paving with good colour and tonal contrast is a critical tool that assists people with sight loss to navigate independently. Not only is it important that it is present, but also that it is correctly installed as it conveys information about the surroundings in which it is placed.
- We support segregated shared pedestrian and cycle routes to allow people with sight loss to have independent and safe mobility. Even the most conscientious cyclist may have difficulty avoiding someone who steps directly in front of them, because they did not see or did not hear the cyclist approaching.

- Concerns regarding electric vehicles should be addressed, potentially through the use of audio signals
- Uniform regulation of how e-scooters can be parked are introduced. For example, fixed docking stations with a detectable kerb
- Produce rigorous standards for engagement that e-scooter operators and local authorities must meet, including carrying out and publishing detailed Equality Impact Assessments on any proposals.

To improve access to public transport:

- Enhance announcements and accessible signage at stations/stops and on the transport itself
- Ensure staff are trained and available to provide in-person assistance

Additionally, more could be done to educate the general public about living with vision impairment and how to give greater consideration and support.

Appendix: About the research

Data for the research study was collected via an online survey in March 2021, undertaken by the charity Guide Dogs.

The sample comprised of 140 people across the United Kingdom aged 18+ years, recruited via an online panel. All respondents had moderate to severe vision impairment, defined using established questions on registration status and vision functions, and had been regularly leaving their home prior to the introduction of Covid-19 related restrictions.

The 30-minute survey was conducted via an accessible platform, and covered the following topics:

- Mobility, confidence and wellbeing.
- The impact of features in the built environment on people with vision impairment.