CLIENT PROJECT REPORT CPR2559

Updating Guidance on the Accessible Public Realm

WP004 Final report

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Executive Summary

The purpose of this project and report is to understand the extent to which the accessibility documents *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* are still relevant and might require updating; the broad scope of any updates; and what form any update might take.

This report has been created following a literature review and stakeholder engagement relating to the accessibility documents *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces.* The literature review covered over 50 documents, with 6 key documents studied in more detail. A full description of the approach used in this literature review, and the findings from it, can be found in Appendix C to this document. The stakeholder engagement identified over 40 potential stakeholders, engaged with 12 of them and received responses from nine.

Based on the balance of all the evidence gathered, the following was found:

- Both documents are widely used.

Guidance on the Use of Tactile Paving Surfaces is used as a largely definitive guide and does not require significant updating of purpose, but may require updating of content detail to ensure better outcomes.

Inclusive Mobility is used by practitioners as part of a mix of information and requires more in-depth updating to cover a wider scope, to update existing content, and to correct out-of-date document references.

- Legal enforcement of *Guidance on the Use of Tactile Paving Surfaces* may be useful, as anecdotal evidence has suggested it is not always followed and this creates issues. However, this could be problematic for practitioners who may not be able to practically follow the guidance in all circumstances.
- There was no demand to further split or combine these documents or to fundamentally change the name of either document.
- The current focus on the needs of wheelchair users (*Inclusive Mobility* only) and blind and partially sighted people (both documents) could be expanded to cover the needs of people with other disabilities, including age-related impacts and hidden disabilities.
- The internet and connected technologies were seen as beneficial for some, but not with the potential to be used universally, and should not replace current forms of information.

- Changes since the two guidance documents were originally issued may need to be addressed, including the use of larger mobility aids and their increasing number, and an increase in shared space projects and cycle routes.
- Future trends in transport are likely to relate to internet-enabled information, and autonomous vehicles, with a need to ensure that information is accessible and that autonomous vehicle development takes into consideration the needs of disabled people.
- Any updated version of either document should be in hard copy, with soft copy accessible versions also available. They should include updated diagrams. The documents should be focussed towards a wider set of practitioners. There should be a dissemination plan for the document to ensure its understanding and use.

The findings point towards a need to update both documents and they provide some direction in relation to those updates, which would need to be tested and considered more fully before changes are made.

Recommendations are made in relation to most research questions. However where the recommendation would have simply repeated an earlier recommendation these have been omitted.

Recommendations

The following recommendations are made on the basis of the engagement activities and literature research undertaken as part of this project and reported in this document. The table below provides both the report's recommendations and the basis for them. Stakeholder comments are not attributed as some of the respondents preferred to remain anonymous. The engagement exercise targeted 12 stakeholders covering a range of user types and received a set of responses from nine of them. Questions were open which gave stakeholders the opportunity to provide full and nuanced responses. For these reasons the report has not split responses to questions into specific answers or percentages.

Recommendation	Basis for recommendation
A promotion/dissemination plan should be created and enacted for any updated versions of either document and this should reach a wide range of stakeholders.	A stakeholder with an interest covering both professional users and disability groups was concerned about the lack of promotion or dissemination amongst those expected to be using the guidance.

Recommendation	Basis for recommendation
The implications of the *Newham vs. Ali* case concerning the legal enforceability of guidance should be reviewed and feed into any update of the *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*.	A key charity stakeholder considered that the Newham vs. Ali had provided sufficient case law to enforce *Guidance on the Use of Tactile Paving Surfaces*, and on the same basis considered this would also impact the enforceability of *Inclusive Mobility*. It is possible that in the absence of duly considered legal advice local authorities could take incorrect actions.
A detailed study should be undertaken to understand the reasons why the real-world provision of tactile paving so often does not follow the guidance (within *Guidance on the Use of Tactile Paving Surfaces*), and that street obstructions are so often met in contradiction of *Inclusive Mobility*. This should include engagement with designers and their clients. This would lead to a better understanding of the challenges encountered in meeting the guidance, which would in turn lead to better guidance.	Practitioner stakeholders noted that they often met difficulty in fully meeting the detailed guidance contained in *Guidance on the Use of Tactile Paving Surfaces*. Charity/campaigning stakeholders provided anecdotal evidence that guidance was not often followed and that this has led to a high proportion of people to have some issues with tactile paving which is not designed or installed as they might expect and encountering street obstructions.
The document names (*Guidance on the Use of Tactile Paving Surfaces*, and *Inclusive Mobility*) should not be radically changed and the content should not be dispersed to other documents.	Most stakeholders did not consider that either document name should be changed, or that the information contained in either document should be dispersed to other documents. There was some discussion regarding potentially adding sub-headings to the documents to make them more specific.
References, statistics and terminology within both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* should be updated to reflect current information/usage.	The project team conducted an expert review of both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* and found multiple instances of out of date references, statistics, and terminology.
The Department should update advice relating to mobility aids. This may require research to understand more about the range of mobility aids used (such as their physical size, and their scale of use), and what design requirements might be put in place to facilitate their use.	Two stakeholders cited an increased use and size of mobility aids since *Inclusive Mobility* was issued, and that current provision may not be sufficient.

Recommendation	Basis for recommendation
Shared space should be researched further with a view to creating and including suitable guidance for both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*.	Over half of the stakeholders noted the recent emergence/evolution of shared space, which will often fall within their remit, and the challenges of making this element of the public realm suitable for all users.
There is sufficient evidence to warrant the consideration of the inclusion of mental health and other disabilities within *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*, but insufficient evidence to determine the detail at this point. It is recommended that these are researched further potentially using the following steps: • The spectrum of mental health (and other disabilities) be categorised. • The scale of each category be understood. • The needs of each category researched and included within *Inclusive Mobility*. The scale of any issue can be compared to the level of need to determine which guidance to include.	The literature review noted that people living with mental health challenges were not taken into consideration within *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* but were often included within similar documents. This issue was raised by three stakeholders. This clearly raises fundamental questions as the inclusion of whole new types of disability within *Inclusive Mobility* (which primarily focusses upon physical and sensory disabilities) would be a major change both to the document and to the built environment. 'Mental health' will be likely to cover a broad spectrum of needs relating to a varying number of people.
The number of tactile paving surface types described within *Guidance on the Use of Tactile Paving Surfaces* should be reviewed following research into how these are understood, detected and differentiated by users in the real world. In particular this should consider the ongoing need for 'information surfaces'.	The issue of there being too many tactile paving surface types was raised a few times by several stakeholders (including those involved in writing the original documents and a charity representing blind and partially sighted people). The 'information surface' was specifically mentioned a number of times as potentially being superfluous. One noted that any removal should only occur after proper *"investigation, research and detailed consultation"*
References within *Inclusive Mobility* should be updated.	A charity noted that many references were out of date. This matches the findings of the literature review.

Recommendation	Basis for recommendation
Each section within *Inclusive Mobility* should be reviewed with regards to bringing guidance up to date (alongside updating for any wider scope of street users).	Multiple stakeholders brought up issues of guidance within *Inclusive Mobility* being out of date, and that it also did not cover the needs of a wider range of street users. Therefore it follows that updating the guidance would require a review of each section.
New sections for *Inclusive Mobility* should be determined and produced to cover modern facilities and innovations such as touch screens.	A number of charity stakeholders noted that in some areas *Inclusive Mobility* did not reflect modern infrastructure such as touch screens.
Guidance should be produced on making information accessible, with regards to a defined range of disabilities and needs.	A charity noted that blind and partially sighted people are often excluded from consultation because they are sent printed documents which they cannot access. By extension it would seem reasonable that people with the disabilities addressed within both documents can readily access information. It was also noted that it was often individuals from these groups who would raise issues of non-compliance with guidance.
The benefits and caveats around online information should be described within *Inclusive Mobility*. The particular benefit of the value of the internet as a journey planning tool should be mentioned. The caveats relate to the internet not replacing traditional forms of information as these are still required.	This recommendation draws together several strands of stakeholder comments, in that online information was seen as beneficial particularly in journey planning, but should not replace existing forms of information as its availability to users was not ubiquitous. It seems probable that the most suitable location for such advice would be within *Inclusive Mobility*.
A watching brief should be given to autonomous vehicles. It may be too early to provide guidance within the documents because the exact form of autonomous vehicles is not yet known, let alone any street infrastructure changes that might be required to accommodate them. However it currently appears likely that within the timeframe of any updated document (20 years) more detail will be known and at that point the documents may need to be supplemented.	All stakeholders were specifically asked about autonomous vehicles. In general stakeholders cautiously welcomed autonomous vehicles but knew little about this emerging technology. Whilst welcoming the travel opportunities autonomous vehicles might provide to disabled people, stakeholders cautioned that they should be devised so as to reduce risk to disabled people and ensure their use by disabled people.

Recommendation	Basis for recommendation
Age related, dementia, and hidden disabilities should be researched further with a view to including appropriate guidance for them within *Inclusive Mobility* and (if appropriate) *Guidance on the Use of Tactile Paving Surfaces*.	The seven stakeholders who responded to this question (which included a charity for age-related issues) were clear that age-related issues should be included within *Inclusive Mobility*, however they were less clear about specific advice. Three stakeholders provided additional unprompted suggestions that this should go beyond age related issues, to also cover dementia and hidden disabilities.
All sections within both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* should be individually reviewed with a view to updating both the original content and scope (in terms of both disability type considered and subject).	The literature review and expert review found that the scope of disabilities covered by both *Inclusive Mobility and Guidance on the Use of Tactile Paving Surfaces* was narrower than the reviewed documents, and that the references and content were outdated.
A wider audience for each document should be considered, along with the provision of accessible versions.	The literature review noted that the audience for *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* was technical and may not cover the full range of potential readers, including disabled people.
Any future work recommended within this report should use the existing stakeholder list, and expand it to include transport operators, practitioners who are more hands-on, health professionals, and disabled people, not just their representatives.	The authors' basis for this recommendation was that the existing stakeholder list covered umbrella organisations. Whilst these are useful in future work, other recommendations point towards a more practical research that would benefit from a widened group.
Updated documents should be available in hard copy, in addition to full versions available online, which should be accessible.	Stakeholders liked having hard copies of each document but also expected online versions to be available. This comment was made a number of times. It was noted that the present online copy of *Inclusive Mobility* does not have a front cover or contents page and that this was confusing. Stakeholders also noted that these documents specifically should be accessible for a wide range of readers.
Consideration should be given to updating the images used within the documents.	One stakeholder considered that the document images should be updated, another commented that practical diagrams are useful and care should be taken to ensure these properly illustrate the point and are legally correct.

1   Introduction

The overriding objective of this project is to understand if the accessibility documents *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* require updating, and if so what the scope of that update should include.

The purpose of this document is to fulfil the eight objectives contained within the client's brief. Each objective was discussed and broken into Research Questions and these were then answered either by the project experts or via a stakeholder questionnaire – a table of these Objectives, Research Questions, and Methods can be found in Appendix A.

Each Research Question has been answered and reported in full in previous project deliverables, and these should be referred to for a complete understanding of the work and findings; this document summarises those findings.

It should be noted that stakeholder responses are their own and any assertions they have made have not been scrutinised and may not reflect the views of the project team.

It should be noted that 'shared space' is outside the scope of this project; however, it is occasionally referred to when it has formed part of stakeholder feedback and the literature review.

1.1   Project process

The broad process stages followed in the creation of this report were:

- The client's objectives were reviewed and from this a set of defined Research Questions were created and agreed. Answering these research questions would allow each client objective to be met.
- The scope of the existing documents *Inclusive Mobility* and *Guidance on the Use of Tactile Paving* were read, understood, and noted by the project researchers. This highlighted any content and terminology which was deemed to be outdated or superseded.
- A stakeholder prioritisation plan was produced which ranked over 40 potential stakeholders from which the Department shortlisted 12 organisations.
- Each of the client's objectives was analysed and from this a questionnaire that could be asked of stakeholder organisations was created and agreed with the client.
- A consultation exercise was undertaken with the stakeholders answering the questionnaire using both telephone interviews and written responses.
- A literature review was undertaken using a defined methodology to select a long list of over 50 documents, from which a scoring mechanism was used to select a shortlist of six documents for in-depth review. These documents are essential 'peer'

documents to *Inclusive Mobility* and *Guidance on the Use of Tactile Paving* and offer a different perspective to the same broad subject area and so may help to understand different approaches which could influence any update of *Inclusive Mobility* and *Guidance on the Use of Tactile Paving*.

- The information gathered from both the consultation exercise and the literature review was examined and used to answer each of the Research Questions. From this the project recommendations were drawn.

At each stage an interim project report was produced and agreed with the client.

2 Are there parts of the guidance that would be more appropriately placed within building, or other, regulations?

Objective: 7 a)i Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Are there parts of the guidance that would be more appropriately placed within building, or other, regulations?

2.1 RQ1 – Results

Research Question wording: RQ1: How and to what extent is the existing guidance in *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility* used by practitioners?

- *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* are both known by practitioners.
- *Inclusive Mobility* is used in conjunction with other guidance documents, and stakeholders mentioned the importance of focussing on the needs of a wider group of (street) users. This questions whether this document fully meets practitioners' needs.
- *Guidance on the Use of Tactile Paving Surfaces* is more used as the definitive reference guide for tactile paving.
- Some stakeholders considered that the documents could be more widely promoted.

Recommendations:

- A promotion/dissemination plan should be created and enacted for any updated versions of either document and this should reach a wide range of stakeholders.

2.2 RQ2 – Results

Research Question wording: RQ2: Are there legal aspects of accessibility guidance which need to be enforced?

- Respondents to the stakeholder questionnaire were not actively against some form of legal enforceability per se.
- A leading stakeholder representing blind and partially sighted people considers that the Newham vs. Ali case has made the tactile paving guidance enforceable, and that a similar principle (although untested in the courts) might apply to *Inclusive Mobility*.
- Practitioners noted the challenges in fully meeting the word of the guidance in a real-world built environment.
- Anecdotal evidence suggests that guidance is not followed and that this has led to many incidents of people having issues with tactile paving which is not designed or installed as they might expect.

Recommendations:

- The implications of the Newham vs. Ali case concerning the legal enforceability of guidance should be reviewed and feed into any update of the *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*.
- A detailed study should be undertaken to understand the reasons why the real-world provision of tactile paving so often does not follow the guidance (within *Guidance on the Use of Tactile Paving Surfaces*), and that street obstructions are so often met in contradiction of *Inclusive Mobility*. This should include engagement with designers and their clients. This would lead to a better understanding of the challenges encountered in meeting the guidance, which would in turn lead to better guidance.

2.3 RQ3 – Results

Research Question wording: RQ3: Would any updated guidance best fit within modified versions of their existing documents, of a brand new document(s), or modified versions of other existing documents (such as building regulations)?

- There was no view that the names of the documents (*Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*) should radically change.
- There was generally no inclination to fit the content of these documents in to other documents.

Recommendations:

- The document names (*Guidance on the Use of Tactile Paving Surfaces*, and *Inclusive Mobility*) should not be radically changed and the content should not be dispersed to other documents.

3 Are there gaps in the guidance and are there opportunities to simplify it in places?

Objective: 7 a)ii Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Are there gaps in the guidance and are there opportunities to simplify it in places?

3.1 RQ4 – Results

Research Question wording: *RQ4: What is the scope of the existing guidance in Tactile Paving Surfaces and Inclusive Mobility?*

- The review of *Inclusive Mobility* concluded that it was produced in 2002 to provide detailed guidance as to best practice in the design of public transport infrastructure and the pedestrian environment, in order to minimise barriers to the mobility of older and disabled people, and others who might encounter difficulties when using public transport or the pedestrian environment.
- Similarly, *Guidance on the Use of Tactile Paving Surfaces* was produced in 1998 to provide detailed guidance on the design and layout of tactile surfaces designed to assist, and ensure the safety of, blind and partially-sighted people. An important aim was identified as encouraging consistency in the use and layout of tactile paving.
- Both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* were found to have many out of date references that require updating. A list of these findings can be found in Appendix B.

Recommendations:

- References, statistics and terminology within both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* should be updated to reflect current information/usage.

3.2 RQ5 – Results

Research Question wording: RQ5: What is the desired scope of any updated guidance?

RQ5 is based upon the outputs of RQ8 (stakeholder engagement), RQ10 (stakeholder engagement), and RQ12 (literature review), with the key findings being as follows:

- There were no strong calls for scope changes to *Guidance on the Use of Tactile Paving Surfaces* (save for some mention that 'Information Surfaces' might be revisited). However there is some suggestion elsewhere that on-street provision is not universally correct. This suggests that whilst there doesn't appear to be a

demand for scope/purpose changes *per se*, the *way* in which information is presented to practitioners might be altered in order to improve on-street outcomes.

- Smartphone/electronic solutions were seen as useful but not a replacement to providing tactile paving, and this is similar for general routing information also.
- Guidance in *Inclusive Mobility* needs to change to cater for increased use of mobility aids*.*
- *Inclusive Mobility* should have greater emphasis on how to make facilities accessible for people with age-related conditions.
- Two subject areas in other accessibility-related documents which do not appear in *Inclusive Mobility* or *Guidance on the Use of Tactile Paving Surfaces* are 'Shared Space' and the needs of people living with mental health challenges. Consideration might be given to their inclusion.

Recommendations:

- The Department should update advice relating to mobility aids. This may require research to understand more about the range of mobility aids used (such as their physical size, and their scale of use), and what design requirements might be put in place to facilitate their use.
- Shared space should be researched further with a view to creating and including suitable guidance for both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*.
- There is sufficient evidence to warrant the consideration of the inclusion of mental health and other disabilities within *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*, but insufficient evidence to determine the detail at this point. It is recommended that these are researched further potentially using the following steps:
  - o The spectrum of mental health (and other disabilities) be categorised
  - o The scale of each category be understood
  - o The needs of each category researched and included within *Inclusive Mobility*.

The scale of any issue can be compared to the level of need to determine which guidance to include.

3.3   RQ6 – Results

Research Question wording: RQ6: Are there opportunities to simplify existing guidance?

Key findings from the research were as follows:

- Crossovers between the two documents can be eliminated.

- There may be too many types of tactile surface, and these might be reduced/reconsidered following targeted research.
- Many references in *Inclusive Mobility* to other documents or legislation are out of date.
- Much of the content of *Inclusive Mobility* requires updating in the light of newer/better understanding.
- Sections in *Inclusive Mobility* on facilities such as public telephones could be updated to match their modern successors, such as information kiosks.

Recommendations:

- The number of tactile paving surface types described within *Guidance on the Use of Tactile Paving Surfaces* should be reviewed following research into how these are understood, detected and differentiated by users in the real world. In particular this should consider the ongoing need for 'information surfaces'.
- References within *Inclusive Mobility* should be updated.
- Each section within Inclusive Mobility should be reviewed with regards to bringing guidance up to date (alongside updating for any wider scope of street users).
- New sections for Inclusive Mobility should be determined and produced to cover modern facilities and innovations, such as touch screens.

4 Where and how does the guidance need to change to reflect changes?

Objective: 7 a)iii Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Where and how does the guidance need to change to reflect changes in, for example, the size and weight of wheelchairs and the increasing prevalence of mobility scooters?

4.1 RQ7 – Results

Research Question wording: RQ7: What are the key changes/revolutions occurring in the way mobility impaired people move or access information since the guidance was issued?

Key changes identified from the research were as follows:

- Larger wheelchairs/scooters and increased use of such mobility aids.
- Greater use of technology/online information, with a warning that such sources should be used to complement, but not replace, physical infrastructure. Also a greater expectation that information will be available online and that this will need to be accessible.
- Increase in spaces that are designed to be shared by many types of user, and an increase in cycle routes, and in the popularity of cycling in general.

Recommendations:

- Guidance should be produced on making information accessible, with regards to a defined range of disabilities and needs.

4.2 RQ8 – Results

Research Question wording: RQ8: What are the likely future trends in the way mobility impaired people move or access information in the future?

Key findings from the research were as follows:

- The internet and connected technologies were seen as being important future methods of accessing information.
- There was recognition that disabled people may have their transport needs enabled by driverless vehicles, increased wheelchair/scooter use and potentially by using a cycle as a mobility aid.
- Driverless vehicles were cautiously welcomed, but with the caveat that account would need to be taken of disabled people, in terms of both adaptations to these vehicles (for example, if there were driverless buses – who would operate the

ramp?), and the soundlessness of electric vehicles, for those outside of the vehicle who rely upon sound to avoid risk.

- Online information was seen as very useful for wayfinding (either before or during a journey), but not as a substitute for traditional forms of information.
- Some form of personalised audio via smartphone/headphones was a common suggestion to assist with accessing information in the future, and it was noted that some form of standardisation across different operators would be required for this.

Recommendations:

- The benefits and caveats around online information should be described within *Inclusive Mobility*. The particular benefit of the value of the internet as a journey planning tool should be mentioned. The caveats relate to the internet not replacing traditional forms of information as these are still required.
- A watching brief should be given to autonomous vehicles. It may be too early to provide guidance within the documents because the exact form of autonomous vehicles is not yet known, let alone any street infrastructure changes that might be required to accommodate them. However it currently appears likely that within the timeframe of any updated document (20 years) more detail will be known and at that point the documents may need to be supplemented.

4.3   RQ9 – Results

Research Question wording: RQ9: Where does existing guidance not adequately cover changes or trends in mobility movement or information access?

RQ9 drew together information from RQ7 and RQ8 and compared the findings with the scope of *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*. The main findings were as follows:

- The research highlighted a need for changes to *Inclusive Mobility* regarding increased guidance on how to cater for larger mobility aids (e.g. on public transport), increases in the provision of cycling facilities, more widespread provision of spaces designed to be used by a number of different users, and a wider range of abilities (especially given improved understanding of hidden disabilities). Note that it is not clear whether catering for cycling, different users, and hidden disabilities would require any update to *Guidance on the Use of Tactile Paving Surfaces*.
- The internet and associated technologies were seen as being useful, but not a replacement for existing forms of information. Where online information is available, it should be accessible.

- Other future trends were seen as relating to: the increasing access to travel information; increasing independent travel via autonomous vehicles; and the potential risk from quiet electric vehicles.

5 Does the guidance need updating to reflect the increasingly ageing population?

Objective: 7 a)iv Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Does the guidance need updating to reflect the increasingly ageing population?

5.1 RQ10 – Results

Research Question wording: RQ10: What are the key mobility challenges faced by an ageing population?

Key findings from the stakeholder engagement exercise were as follows:

- Respondents considered that age-related mobility issues should be included, relating to, for example, reduced speed/reaction time, reductions in sight and hearing, increased requirement to rest, dementia and diabetes.
- The uptake of technology (such as smartphone use) was seen as being low in older age groups, for various reasons. This will limit any move towards providing information solely via technology and means that traditional information dissemination methods will still be required.

5.2 RQ11 – Results

Research Question wording: RQ11: Where are the ageing population mobility challenges not addressed within existing guidance?

RQ11 was based upon comparing the results of RQ10 (which asked stakeholders about the mobility challenges faced by an older generation), with an analysis of the scope *of Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces*.

- There is wider acceptance that the mobility challenges faced by an ageing population should be included within both sets of guidance, particularly as this population is growing.
- *Guidance on the Use of Tactile Paving Surfaces* might need to account for age-related conditions, considering for example, an increasing propensity to trip, and the loss of feeling in the feet caused by diabetes.

Recommendations:

- Age related, dementia, and hidden disabilities should be researched further with a view to including appropriate guidance for them within *Inclusive Mobility* and (if appropriate) *Guidance on the Use of Tactile Paving Surfaces*.

6 Gap analysis comparing current UK good practice standards against equivalent international standards

Objective: *7* b) Carry out a gap analysis comparing current UK good practice standards against equivalent international standards, taking account of any standards developed at local or regional level in the UK (by e.g. local authorities, Non-Government Organisations or disability groups) which cover similar ground.

Research Question wording: RQ12: What are the core areas of selected alternative guidance on accessibility and how do these compare to *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*?

This work was based mainly on a literature review. This found that that *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* cover a narrower range of user groups than the reviewed documents, are largely comprehensive in terms of scope of any built features covered, but somewhat out of date in terms of content. This means that there is potentially a need to add in a few new areas of scope, and to update what already exists in these documents.

Key areas of subject matter found in other documents included:

- Inclusion of guidance related to various mental, behavioural, and emotional challenges, and age-related conditions.
- The issue of 'shared space'.
- A focus on a wider range of users of the document.

Recommendations:

- All sections within both *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* should be individually reviewed with a view to updating both the original content and scope (in terms of both disability type considered and subject).
- A wider audience for each document should be considered, along with the provision of accessible versions.

7 Gauge and take into consideration the views and needs of different stakeholders

Objective: 7 c) Gauge and take into consideration the views and needs of different stakeholders, including – but not necessarily limited to – disability groups, designers and practitioners.

Research Question wording: RQ13: Who are the stakeholders with views that need to be taken into account?

A range of potential stakeholders, including end beneficiaries, practitioners, government, the industry, other affected parties, and designers, were 'long-listed', and from this wide sample 12 stakeholders were chosen to take part in a stakeholder engagement exercise. This consisted of responding to a questionnaire, which stakeholders could choose to be self-completed or administered by means of a structured interview. From this shorter list, 9 stakeholders responded:

1. Age UK
2. Centre for Accessible Environments
3. The Chartered Institution of Highways and Transportation
4. Disabled Persons Transport Advisory Committee
5. Guide Dogs
6. Living Streets
7. RNIB
8. Transport for West Midlands (referred by Urban Transport Group)
9. Wheels for Wellbeing

The results of the stakeholder consultation exercise are reported in sections relating to individual research questions.

Recommendations:

- Any future work recommended within this report should use the existing stakeholder list, and expand it to include transport operators, practitioners who are more hands-on, health professionals, and disabled people, not just their representatives.

8 How revised document(s) can be refined for maximum impact

Objective: 7 d) Understand how the existing guidance is used by designers and practitioners and consider how revised document(s) can be refined for maximum impact.

Research Question wording: RQ14: What changes to existing documentation will enable the accessibility guidance to be enacted with maximum impact?

Key findings from the stakeholder engagement exercise were as follows:

- Practitioners like a hard copy document; a soft-copy is also seen as being useful and that soft copy should have a contents page.
- Diagrams should be updated (both documents).
- Any revised version of either document should be accessible.
- The following sections of *Inclusive Mobility* were seen as lacking, either in detail or in accuracy: Shared surfaces and spaces; Raised tables/crossing points; Colour contrast – especially when kerbs are insufficient; Detail relating to cycling facilities; Accessibility issues relating to cycling infrastructure; Correct legislation references; Statistics quoted within the document (such as the number of people with sight loss); Design for non-visible/hidden impairments; Advice on when design compromises must be made (stakeholders noted that it is occasionally challenging to comply with the letter of guidance to fit within the real-world built environment); and Use of smart infrastructure.
- The following sections of *Inclusive Mobility* were seen as being out of date: Facilities; Seating; WCs; Parking; Links to legislation; Cited statistics within the documents; and Cycleway surfaces.
- The 'Information Surface' chapter in *Guidance on the Use of Tactile Paving Surfaces* was seen as a potential candidate for deletion (following appropriate research).
- The needs of users were considered to be not well understood by highway designers.
- A dissemination plan for any updated documents will be needed for the various end audiences.

Recommendations:

- Updated documents should be available in hard copy, in addition to full versions available online, which should be accessible.
- Consideration should be given to updating the images used within the documents.

9 Relative merits of merging the two sets of guidance

Objective: 7 e) Determine the relative merits of merging the two sets of guidance, and options for streamlining updated document(s).

Research Question wording: RQ15: What are the benefits and disbenefits of merging *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*?

Key findings from the stakeholder engagement exercise were as follows:

- Some users use *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* separately, others in conjunction.
- The tactile paving section in *Inclusive Mobility* is used by some alongside *Guidance on the Use of Tactile Paving Surfaces*.
- There was no overriding view on the removal of the Tactile Paving section from *Inclusive Mobility*.
- Whilst merging *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* was seen as being useful to provide a single source of information, there was also a view that it might make the document too unwieldy.

Research Question wording: RQ16: What are the options for streamlining updated document(s)?

Key findings from the stakeholder engagement exercise were as follows:

- There was a general consensus that print versions are still required, however these should be mirrored with online versions, which should be accessible.

10 Conclusions

The purpose of this project was to understand if the accessibility documents *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* need to be updated. The project concludes that whilst the two documents should remain as separate documents they do need to be comprehensively updated in several key areas in any future project, in particular including:

- The types of disability addressed by the guidance.
- The physical infrastructure addressed by the guidance.
- External references cited within the guidance.

This project report contains a number of recommendations which should be read and understood prior to starting work; in many cases this requires that the documents' scope is determined ahead of major reworking. Other recommendations relate to detail of those updated documents and might form part of any future project specification.

Appendix A   Objectives, Research Questions, and Methods

This appendix provides the client objectives, and then the discussion, research questions, and work required proposed by the project and undertaken.

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
7 a)i Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Are there parts of the guidance that would be more appropriately placed within building, or other, regulations?	This question relates to how accessibility provision information is used (by designers, builders, and planning authorities) and how its installation is enforced.	RQ1: How and to what extent is the existing guidance in *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility* used by practitioners? RQ2: Are there legal aspects of accessibility guidance which need to be enforced? RQ3: Would any updated guidance best fit within modified versions of their existing documents, of a brand new document(s), or modified versions of other existing documents (such as building regulations)?	To understand how practitioners use the guidance there is a need to ask them. We propose a telephone questionnaire of 3 civil engineer designers, 3 civil engineering contractors, and 3 planning and/or highway authorities, where a set of questions will be asked based upon a semi-structured interview questionnaire. As an alternative we could also exchange (or at additional cost) add Local Authority Access Officers – we have link to them via the Access Association and those involved in the current redrafting of BS8300. This telephone and semi-structured approach will allow respondents to offer a wider set of responses than a simple paper-only questionnaire, and telephone interviews generally have a far higher response rate. There will be a requirement to identify and select potential respondents, write a questionnaire, set up the telephone interview and undertake it, write up their response, and then moderate the responses into a summary of key findings in response to each of the research questions.

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
7 a)ii Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Are there gaps in the guidance and are there opportunities to simplify it in places?	In order to understand gaps in present guidance, there is a need to determine what something complete should contain/look like. A mapping exercise can then be undertaken which maps the present against the desired complete model.	RQ4: What is the scope of the existing guidance in *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*? RQ5: What is the desired scope of any updated guidance? RQ6: Are there opportunities to simplify existing guidance?	RQ4 requires a review of the existing guidance in *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility* and a listing of their scope, which will be tabulated. This may (with agreement of the client) also be extended to cover alternative guidance such as that produced by Westminster City Council. The answer to RQ5 will be based upon the outputs of research questions (RQ8, RQ10, and RQ12), and then this will be tabulated against the existing scope found in RQ4. This RQ6 work will be based upon discussions with those that use the guidance (designers, builders, and planning authorities), to understand if there are complexities in it which could be simplified. These will be moderated and reported.
7 a)iii Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Where and how does the guidance need to change to reflect changes in, for example, the size and	This question recognises that several revolutions have occurred since the original guidance was issued. There is a need to understand what these changes (and future trends) are, and identify where existing guidance does not adequately cover it. It will not be the responsibility of the project to determine if	RQ7: What are the key changes/revolutions occurring in the way mobility impaired people move or access information since the guidance was issued? RQ8: What are the likely future trends in the way mobility impaired people move or access information in the future? RQ9: Where does existing	Work for RQ7 and RQ8 will be based upon a consultative approach with local authority and disability group stakeholders, who will be sent a questionnaire in advance of a telephone discussion to draw out a response. We will write this questionnaire based upon our understanding of what has occurred, what is the existing guidance, and in a manner which can draw out responses. The responses will be moderated and reported, with some discussion regarding what these key changes, revolutions, and likely future trends are. The 'emerging trends' part will be short and based upon input from stakeholders and secondary

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
weight of wheelchairs and the increasing prevalence of mobility scooters?	such changes should be made. The research will cover up to three changes/revolutions (i.e. increase size/weight of wheelchairs being one), but will not cover ageing as this is covered in 7 a)iv.	guidance not adequately cover changes or trends in mobility movement or information access?	information. Its purpose is to signpost potential future trends at a high level and present a short bullet-pointed list of summarised trends and direction. Work for RQ9 will take the responses from RQ7 and RQ8 and match these against the tabulated output of RQ4 to allow for the quick and easy identification of where existing guidance does not cover changes or trends in mobility movement or information access.
7 a)iv Consider the scope of the guidance in the context of how things have changed since the earlier documents were published. For example: Does the guidance need updating to reflect the increasingly ageing population?	This question is related in part to 7a)iii, as the revolution of the increasingly large and long-lived population has related mobility challenges. There is a need to understand what these needs are and if they are being met.	RQ10: What are the key mobility challenges faced by an ageing population? RQ11: Where are the ageing population mobility challenges not addressed within existing guidance?	Work on RQ10 will be based upon an initial short literature review of mobility challenges facing an aging population, which will be used to feed into a set of questions for stakeholders (such as Age UK). This research could be extended, with the agreement of the client, to obesity and changing attitudes towards the use of different mobility aids. We will administer this set of questions via a telephone survey with local authority and disability groups, and then moderate and report the responses in a manner which succinctly summarises the key points. Work on RQ11 will take the responses from RQ10 and match these against the tabulated output of RQ4 to allow for the quick and easy identification of where existing guidance does not cover the needs of an aging population.

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
7 b) Carry out a gap analysis comparing current UK good practice standards against equivalent international standards, taking account of any standards developed at local or regional level in the UK (by e.g. local authorities, Non-Government Organisations or disability groups) which cover similar ground.	Accessibility guidance is a constantly evolving area with various groups issuing guidance different to that within *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*. A review of this guidance at a high level will enable an understanding of whether the existing government guidance is deficient in any core areas.	RQ12: What are the core areas of selected alternative guidance on accessibility and how do these compare to *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*?	This work will be based upon a literature review of alternative information sources. We will base this research on at least 6 documents, which will be selected both from our existing understanding of available key documents, a word search using the TRID database of research, and discussions with stakeholders to flush out any remaining key literature. This is likely to come from built environment literature, as well as transport and mobility literature. The work will then summarise the core areas within these documents, and compare these in a tabulated manner which the outputs of RQ4.
7 c) Gauge and take into consideration the views and needs of different stakeholders, including – but not necessarily limited to – disability groups, designers and practitioners.	Stakeholder groups will likely have very useful input to updated guidance. It is important to understand their views so that best practice can be incorporated into any future guidance. It is also important to do so transparently so that each group is and feels involved,	RQ13: Who are the stakeholders with views that need to be taken into account?	It is recognised that there are a wide range of stakeholders, which can be split by group type, and then to individual organisations. This will likely include local planning and/or highway authorities, designers, contactors, disability groups, and government. We will aim to select a long-list of stakeholders from which the client will select which ones to engage. We will then approach these stakeholders for their input. The project allows for a maximum total of 12 individual organisations across these groups. Where any group refuses to engage, we will work with the client to help

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
	which will better prepare the landscape for any future changes.		resolve the issue or select an alternative. The various other research questions within this project answer the core question here regarding taking stakeholder views into account. We recognise that there is often friction between the competing emphasis of the various stakeholder groups, and will work to highlight where these frictions exist to better enable the outputs to provide insightful recommendations.
7 d) Understand how the existing guidance is used by designers and practitioners and consider how revised document(s) can be refined for maximum impact.	Designers and practitioners will have been using *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility* for a number of years and will likely have their own view on how the documents are used. There is a need to understand how would the maximum impact (defined as the guidance being enacted well) be achieved through revised document(s).	RQ14: What changes to existing documentation will enable the accessibility guidance to be enacted with maximum impact?	This work will engage with designer, contractor, and planning/highway authority stakeholders (using the list found in RQ13), and use a set of semi-structured telephone interview questions written by our experts to draw out a response. The responses will be moderated and reported as distinct bullet points.
7 e) Determine the relative merits of merging the two sets of guidance, and options for	The existing guidance is spread over two sets of documentation. It is not clear if this is the best way of ensuring the guidance is	RQ15: What are the benefits and disbenefits of merging *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive*	This work will start with the creation of an exhaustive list of benefits and disbenefits, and will use this to both question stakeholders, and to undertake our own analysis. This will be moderated and reported in a succinct list.

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
streamlining updated document(s).	enacted. There is a need to understand if the documents being split over two documents is an issue, and if so if there is an alternative which might work better.	*Mobility*? RQ16: What are the options for streamlining updated document(s)?	

Appendix B   RQ4 – Changes since Guidance on the Use of Tactile Paving Surfaces and Inclusive Mobility were issued

Both *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility* contain references to legislation, external documents, use terminology. These change over time and an exercise was undertaken to review each document to understand the extent to which these elements were out of date and may require updating in any future iteration. The results of this review are shown below.

B.1   Guidance on the Use of Tactile Paving Surfaces

B.1.1   Issues for consideration

Regarding the introduction to the nature of visual impairment, the principles of how blind and partially-sighted people get around, and the importance of "consultation".

The following statistics in *Guidance on the Use of Tactile Paving Surfaces* need to be updated:

- "There are approximately 1 million blind and partially sighted adults in the United Kingdom. Approximately 5% of these people have no sight at all."
- "…There are approximately 4,500 guide dog owners in the UK…"

With reference to detailed guidance on the design and use of tactile surfaces. It will be necessary to establish whether all seven surfaces are useful and relevant for people who are blind or partially-sighted. If a surface is very rarely used, then it is unlikely to be recognisable, and therefore useful. In this context, there might be a doubt about the continued relevance of the Information Surface.

The Glossary, Contacts and Reference Documents sections need to be fully updated.

B.1.2   Superseded references within document

The following references within the document are deemed to be superseded and consideration should be given to updating them:

- "Joint Mobility Unit of the RNIB".
- "The Guide Dogs for the Blind Association" - consider using their working name of "Guide Dogs".
- "The Mobility Unit of the Department of the Environment, Transport and the Regions".

- Traffic Advisory Leaflet (TAL) 4/91 "Audible and Tactile Signals at Pelican Crossings" dates from Nov. 1991. Note this may shortly be superseded by Chapter 6 of the Traffic Signs Manual.

B.1.3 Outdated terminology

No attempt is made in this analysis to perform a comprehensive audit of the language used, as it is assumed that when the documents featured in this project are redrafted appropriate terminology will be used. For example, it will be natural to refer to "engagement" instead of "consultation". Furthermore, not every example of outdated terms used throughout the documents, (such as references to "impairment"), are highlighted in this table, as these can be eliminated during the drafting process. The following were noted:

- "Rehabilitation or Mobility Officers".
- "…people with physical and sensory Disabilities…".

B.2 Inclusive Mobility

B.2.1 Section – Introduction

This section has an emphasis on removing barriers. There is a requirement to emphasise the objective of creating a more inclusive society, based on the principles of Universal Design. This should mention the need for people with non-physical, often 'invisible', challenges to be considered.

The scope extends to people who are "travelling with small children or are carrying luggage or heavy shopping", and people with "temporary mobility problems …. and many older people". Sensory issues and learning disability are not mentioned in this Introduction, but are dealt with specifically later on in the document. This section does not mention learning disabilities, mental health issues, or neurodiversity.

B.2.2 Section – Basic human factors information

This section disaggregates "disability" in terms of Locomotion, Seeing, Hearing, Reaching / Stretching / Dexterity, and Learning Disability. There is a need to look for more recent evidence to verify the statistics cited, for example:

- "Approaching 70% of disabled people have locomotion difficulties: those with walking difficulties outnumber wheelchair users by about 10:1."
- "…there are almost two million people in Great Britain with a significant sight loss."
- "….there are over eight million deaf or hard of hearing people in the UK of whom approaching 700,000 are severely or profoundly deaf."
- There is a need to look for more recent human factors evidence relating to people.

- All references to wheelchair dimensions need to be updated, to reflect the full range of products on the market.
- Walking distance figures are derived from research carried out in the late 1980s.
- Reference is also made to data from the USA; again, any updates on these data need to be examined.

Note that the ISO Standard for wheelchairs (ISO 7193) consists of several sections, and it will be necessary to consider all updates, as well as standards from elsewhere.

B.2.3   Section – Footways, footpaths and pedestrian areas

This section covers minimum width requirements in various circumstances, gradients, fences & guardrails where pedestrians pass, associated seating requirements, the design of any necessary barriers required to prevent conflict with other users (e.g. cyclists), the design and positioning of street furniture (e.g. posts, bollards, waste bins, signs), the avoidance of conflict with tapering obstructions (caused by stairs etc.), mitigating measures to ensure the safety of street works, principles associated with surfaces (gaps, uneven surfaces, covers & grating).

- Any updated research on appropriate gradients, in particular, should be consulted.
- On colour contrast indicators, a "…single band, minimum 150mm, is considered satisfactory by the Royal National Institute for the Blind (RNIB)." Whether this remains the case needs to be verified with the RNIB.

There are sections which deal generally with colour contrast in design, and "other obstructions" (such as 'A-frames' used for advertising, vehicles and bicycles parked inappropriately, overhanging branches, etc.).

- The encroachment of "café tables" is dealt with briefly; however, revised guidance might provide more detail on the use of pavements by cafés and restaurants, given that 'café culture' has been embraced, in the UK, to a larger extent than it had been when *Inclusive Mobility* was first published.

There is a section on Road Crossings, which covers accessible features of pedestrian crossings in general, and of pelican crossings in particular, with a brief mention of puffin crossings. Features include the time allowed for pedestrians to cross, the location and dimensions of control units (including buttons and rotating cones), all audible and tactile indicators, and centre refuge islands. The section includes pedestrian crossing areas in bus stations, and provisions in cases where road works prevent a pedestrian crossing from being used. Specific information is given on dropped kerbs and raised crossings, relating to when and where dropped kerbs should be provided, minimum widths and gradients, and measures to prevent cars from being parked at pedestrian crossing points.

- This guidance needs to be supplemented with further details of the design of puffin crossings, toucan crossings, and pedestrian count-down. It also needs to recognise that Pelican crossings are no longer prescribed and no new ones can be installed.

B.2.4   Section – Tactile Paving Surfaces

A summary is provided of the seven contexts for tactile paving surfaces: 1. Pedestrian crossing points, 2. Hazard warning surface, 3. Off-street platform edge warning, 4. On-street platform edge warning, 5. Segregated shared cycle track / footway surface and centre delineator strip, 6. Guidance path surface, and 7. Information surface.

- One of the aims of the current research will be to establish whether all seven surfaces are useful and relevant for people who are blind or partially-sighted. If a surface is very rarely used, then it is unlikely to be recognisable, and therefore useful.

Information is provided using the following sub-headings: Type of surface, Colour, Application and Layout. The information provided is purely descriptive, including precise dimensions, but with no accompanying diagrams.

"Note that a tram stop is regarded as being 'on-street' where: 'the tramway is in a street environment, or where the ability for pedestrians to cross and/or walk, without restriction, along or alongside the infrastructure, exists.' (This definition has been agreed with the Railway Inspectorate)." Whether this remains the case needs to be verified with the Railway Inspectorate's successor, the Office of Rail and Road.

B.2.5   Section – Car parking

This section refers to the provision of designated parking spaces for Blue Badge holders wherever conventional parking spaces are provided, in both Local Authority provided car parks, and car parks provided for the public by private companies.

Guidance covers the ideal site and location of designated parking spaces, the percentage of parking spaces that should be designated for older and disabled, the detailed design of accessible parking bays, signage & marking, and the design of parking control (i.e. payment) equipment.

- There may be a need to review the suitable proportion of designated parking spaces in light of the current proportion of blue badge holders.

Also contained in this section is a suggestion that, "for car parks serving a general area", consideration be given to providing a Shopmobility service.

B.2.6   Section – Bus stops

The guidance covers the spacing of bus stops, the design and dimensions of raised boarding areas (including kerb heights), the design and positioning of shelters, the design and positioning of bus stop flags, seating at bus stops and timetable information.

- "…research that shows that for disabled people, bus use falls off sharply if the distance [between bus stops] is more than 200 metres…". There is a need to investigate whether more up to date research has been carried out into this.

Reference is made to the Public Service Vehicles Accessibility Regulations 2000 (PSVAR), where they relate to the maximum acceptable angle of a bus boarding ramp.

- "…research by Greater Manchester Passenger Transport Executive…". There is a need to check whether more recent research has been carried out.
- "…new designs of 'panel' bus stops provide more space for information." This advice might be reconsidered, given that such displays are unpopular with many disabled people, given that wheelchair users and people of shorter stature are typically only able to read the information that is located at a certain height on these panels.
- There is no consideration of the provision or design of Variable Message Signs, or of any other type of electronic display.
- It is recommended that TfL's 2017 Accessible Bus Stop Design Guidance is reviewed as a potential source of updated information, and a search may be made for other alternative sources which cater for areas different to London.

B.2.7 Section – Taxi Ranks

This is a very short section, which provides general guidance concerning the siting, design and signing of taxi ranks.

- "At present, over 80 Licensing Authorities have introduced mandatory orders requiring some or all of the taxis within their area to be wheelchair accessible." This statement is clearly out of date, and needs to be updated if it is to be retained.

B.2.8 Section – Access to and within Transport-related Buildings

This is a large and comprehensive section. It begins with the principles of the location and lay-out of transport buildings. Detailed guidance is provided on the design and dimensions of: entrances & doors (including the design of handles, the minimum force required for opening doors, closure delays on automatic doors, pressure thresholds for triggering the opening of automatic doors, materials used for the manufacture of doormats), corridors & passageways, travellators (including speed of movement, surface characteristics and handrails), steps & stairs (including the radius of step nosings, minimum lighting levels for stairways, the maximum number of steps per flight), ramps (including temporary ramps, and the detailed design of kerbs and gradient transitions to prevent the 'grounding' of

wheelchair foot supports etc.), handrails, escalators (including environmental lighting, and audible warnings before and in anticipation of the end of the escalator), lifts (including manoeuvring space on the approach to lifts, lift control buttons, two-way voice communication equipment, recommended dimensions of handrails and any "tip-up seat" provided, the minimum requirements for communicating an emergency alarm to both people who are blind or partially-sighted and people who are deaf or hard of hearing, requirements for labelling provided in Braille, lift door opening timings and the functionality of sensors), "footbridges, tunnels and underpasses", platforms (with off-street LRT, on-street LRT and rail platforms dealt with separately).

- Consideration should be given to how much of the Building Regulations apply to such buildings in any case and whether there is unnecessary duplication.
- Reference is made to an "American guideline" (Federal Register, Vol.56, No.173). There is a need to check for updates on these guidelines.
- The document admits that recommended dimensions for features such as steps and stairs are based on research carried out in the 1970s and 1980s, and on the length of a size 9 shoe. There is need to check more recent research to verify that these guidelines remain relevant for today's population.
- There is also reference made to Australian standards. There is need to check current Australian guidance , to check for any changes in the dimensions quoted.
- Minimum dimensions for the internal space required for lifts are specified – need to verify these guidelines, based on current data on wheelchair size and manoeuvring capabilities. A passing reference is made to "…increasing numbers of scooters used…" It should now be possible to be more precise about the dimensions and manoeuvring capabilities of the current parc of mobility scooters.

B.2.9 Section – Transport buildings: Facilities

This section covers ticketing and information facilities (including the design of service counters, the positioning & signing of induction loop equipment, the requirement for an accessible route to be provided where there are 'ticket barriers', the design of "automatic ticket vending machines"), public telephones, waiting areas & seating, waiting & refreshment rooms (including the accessible design of tables), luggage facilities, and toilets (including details of all key dimensions, closing & locking mechanisms, support handrails, the design of emergency alarm call provisions). There is a separate section on "dog relief areas", covering the design of such a facility.

- Detailed recommendations are provided on the design of public telephones. Consideration should be given to whether such guidance is necessary, due to the growing prevalence of the use of mobile 'phones. The definitions regarding obstructions might be extended to cover other obstructions also.

- There may be a need to review accessibility of ticket machines from the perspective of the visually impaired (esp. touch screens) and those with learning disabilities.

- Reference is made to the type of seating provided by Merseyside PTE. This is very likely to be an out of date reference.

- Regulations from the USA and guidelines from Australia are quoted concerning the number of spaces for wheelchair users that should be provided as a proportion of the total number of fixed seats. There is need to check documentation for updates if these references are to be retained.

- As well as being based on superseded building regulation documents, the comprehensive section on toilet facilities does not cover full Changing Places requirements, (although there is a short paragraph on the recommended height of a "colostomy changing shelf"). This is a section that needs to be added.

B.2.10   Section – Signage and information

This section makes specific reference to the needs of people who are blind or partially-sighted, and people who are deaf or hard of hearing, but also emphasises the general advantage of "simplicity", which can help everyone, but particularly people with learning disabilities. The section also emphasises the importance of good signage in relation to emergencies and evacuation procedures.

Issues covered: Size & style of both lettering and symbols (in relation to viewing distance), the principles of colour contrast, the positioning of signs, Variable Message Signs (including details of 'reading rates', means of creating electronic characters, colour combinations), tactile signs, audible information, timetable displays in public transport environments (including recommended dimensions for timetable panels).

- Reference is made to guidelines from the USA on minimum letter heights – if such a reference is to be retained, then it will be necessary to establish the most up to date information from this source.

- Detailed data are provided on the size requirements for symbols, citing Transport Canada as the source. There is a need to check whether this information is current.

- There are new types of signage/legibility features (e.g. Legible London and similar) and there may need to be consideration of emergence of new technologies for navigation.

B.2.12 Section –Lighting

This section explains the principles of reflection and glare etc., and describes how lighting can be used to give directional guidance. There were no particular issues raised with this section, except that the "Code of Practice for Road Lighting", BS5489 document has since been updated.

B.2.13 Section – Access in the countryside

The BT's "Countryside for All" (1997) publication is acknowledged as being the source of most of the recommendations made in this section, which covers the dimensions of rural paths, gateways, bridges & boardwalks, steps, seating & resting places, viewing points, information displays. There were no particular issues raised with this section, except that the BT "Countryside for All" (1997) guidelines have since been updated by the Fieldfare Trust.

B.2.14 Section – Consultation, Training and Management

This section emphasises the importance of "consultation and participation", and of involving key stakeholder organisations. There is a sub-section on "disability awareness training" for staff, with recommendations as to the main content of such training.

- The sub-section on "disability awareness training" will require some updating, to bring it in line with current thinking in this subject area

B.2.15 Section – Glossary, Bibliography and Useful Addresses

Information is outdated and should be updated as appropriate.

B.2.16 Superseded references within the document

The following superseded references were found within *Inclusive Mobility*:

- Disability Discrimination Act (1995).
- Legislation on reasonable adjustments (Oct. 1999).
- The "Strategic Rail Authority".
- The SRA's "Train and Station Services for Disabled Passengers".
- Part V of the DDA.
- British Standard BS8300 (the year is unclear, however a new version was published in 2018).
- The DfT's Mobility and Inclusion Unit.
- Institution of Highways and Transport.
- The IHT's "Reducing Mobility Handicaps – Towards a Barrier Free Environment".
- "The DDA".

- The Royal National Institute for Deaf People (RNID).
- ISO Standard for Wheelchairs (ISO 7193).
- Local Transport Note (LTN) 2/86 "Shared Use by Cyclists and Pedestrians" which has been superseded by LTN 1/12 "Shared use routes for pedestrians and cyclists".
- Traffic Advisory Leaflet (TAL) 4/91 "Audible and Tactile Signals at Pelican Crossings" dates from Nov. 1991. There is a need to provide updates from subsequent TALs[1], (such as TAL 05/05 "Pedestrian Facilities at Signal-controlled Junctions").
- It is understood that this guidance will be superseded by the Traffic Signs Manual Chapter 6 which is currently being drafted.
- The Traffic Signs Regulations and General Directions has been updated, with the latest version being 2016, including 'H' marking which is still prescribed in TSRGD 2016 as Diag 1026.1 (at Schedule 11 Part 4 Item 17).
- "…push button units used in Great Britain must first be approved by Traffic Control and Lighting, in Bristol." This has been superseded by the TOPAS product registration.
- Reference is made to BS 7997 "Products for Tactile Paving Surface Indicators", which provides construction standards for paving materials. There is a 2003 version of this Standard, which should be referenced.
- The "Railway Inspectorate".
- "'Blue (formerly Orange) Badge' holders" – Reference to the Blue Badge's former colour should now probably be omitted.
- TAL 5/95 "Parking for Disabled People" dates from 1995.
- The SRA's "Train and Station Services for Disabled Passengers" is referenced.
- Section 5.4 appears to show unlawful road markings for on-street bays.
- "Greater Manchester Passenger Transport Executive".
- "The information provided on [the timetable] display should also include directions to and distance of the nearest public telephone…". Consideration should be given to omitting this, and similar, guidance, given the increasing rarity of public telephones.
- "Code of Practice for Means of Escape for Disabled People", BS5588, Part 8, (1988). This guidance has been revised several times.
- BS8300, which has recently been revised, is referred to when dealing with ramps and gradients.
- "European Lift Standard" (April 2000). This guidance has been revised several times, most recently in 2017.
- "Merseyside PTE".

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[1] The DfT has indicated that a list of TALs is available to facilitate this.

- The detailed section on the design and provision of toilets carries an acknowledgement of having drawn heavily from BS8300 "Design of Buildings and their Approaches to Meet the Needs of Disabled People", Part M of the Building Regulations (1991) and Part T of the Technical Standards (Scotland) (1990). All of these source documents have been superseded several times.
- Reference to "Sign Design Guide" (2000), which has since been updated. This document does not cover traffic signs, which are separately covered by the Traffic Signs Manual and the Traffic Signs Regulations and General Directions.
- "Legibility of Timetables, Books and Leaflets", (DPTAC, 1996). This document was updated by the Association of Transport Co-ordinating Officers in Sep 2002, with "minor updates and corrections" made in May 2003.
- "Code of Practice for Road Lighting", BS5489. This document has since been updated.
- "British Telecom (BT)".
- BT's "Countryside for All" (1997). These standards & guidelines have since been updated by the Fieldfare Trust.
- "Guidance on Full Local Transport Plans", Department for Transport, (Mar. 2000). The most recent update of this document appears to have been in July 2009.
- "Encouraging Walking", Department for Transport, (Mar. 2000) – This document has been superseded by a number of policy documents, some of which have included cycling within their remit.

B.2.17   Outdated terminology

Potentially outdated terminology has been highlighted. No attempt is made in this analysis to perform a comprehensive audit of the language used, as it is assumed that when the documents featured in this project are redrafted appropriate terminology will be used. For example, it will be natural to refer to "engagement" instead of "consultation". Furthermore, not every example of outdated terms used throughout the documents, (such as references to "impairment"), are highlighted in this table, as these can be eliminated during the drafting process.

- "sensory and cognitive impairments".
- "people with mobility impairments".
- "physical, sensory or mental impairment".
- Reference to "elderly" people.
- The reference to "cash tills" is now rather obsolete and should be replaced with a more modern equivalent term. Similarly, references to "ticket barriers" and "automatic ticket vending machines" should be updated.
- "Ambulant disabled people".
- "Colostomy changing shelf".

- "Hard of hearing people".
- References to "consultation" might be replaced with references to "engagement".

Appendix C   Literature review

This appendix provides the Literature Review of documents for the 'Updating Guidance on the Public Accessible Realm' project. The scope of this literature review covers accessibility-related and public realm guidance from the UK and abroad, excluding the key documents for the project: *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces*; as these were reviewed in previous research question RQ4. The purpose of this report is to understand if there are areas of scope in other documents which are not included in *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces* which might be useful to include or reference in future updated document(s). Table 1 below indicates the plan for this work as described in TRL's proposal.

Table 1 – Objectives, Research Questions and Methods

Objectives (from client brief)	Discussion	Research Question (s)	Work Required and methods to be employed
7 b) Carry out a gap analysis comparing current UK good practice standards against equivalent international standards, taking account of any standards developed at local or regional level in the UK (by e.g. local authorities, Non-Government Organisations or disability groups) which cover similar ground.	Accessibility guidance is a constantly evolving area with various groups issuing guidance different to that within *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*. A review of this guidance at a high level will enable an understanding of whether the existing government guidance is deficient in any core areas.	RQ12: What are the core areas of selected alternative guidance on accessibility and how do these compare to *Guidance on the Use of Tactile Paving Surfaces* and *Inclusive Mobility*?	This work will be based upon a literature review of alternative information sources. We will base this research on at least 6 documents, which will be selected both from our existing understanding of available key documents, a word search using the TRID database of research and discussions with stakeholders to flush out any remaining key literature. This is likely to come from built environment literature, as well as transport and mobility literature. The work will then summarise the core areas within these documents and compare these in a tabulated manner which the outputs of RQ4.

C.1   Scope of base documents

Research Question RQ4 researched the scope of *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces*. A summary of RQ4 is provided in Table 2 below. A tabular format was chosen so that a ready comparison could be made with the literature reviewed as part of RQ12.

Table 2 – Comparison of the Guidance on the use of Tactile Paving Surfaces and Inclusive Mobility

	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility
Why	To provide detailed guidance on the design and layout of tactile surfaces designed to assist and ensure the safety of, blind and partially-sighted people. An important aim was to encourage consistency in the use and layout of tactile paving.	To provide detailed guidance as to best practice in the design of public transport infrastructure and the pedestrian environment, in order to minimise barriers to the mobility of older and disabled people and others who might encounter difficulties when using public transport or the pedestrian environment.
When	1998	2002
What	Details of the design and layout of the seven types of tactile surface approved by the (then) DETR and Scottish Executive.	Details of best practice in the design and provision of a barrier-free public transport and pedestrian environment.
Who	**Who is it for?** Local Authorities and other bodies responsible for the physical design and maintenance of the public realm, particularly the pedestrian environment. This will include anybody with responsibilities that involve road crossings, shared use cycle paths, platforms, public transport buildings and spaces specifically designed for use by pedestrians **Who will use it?** Designers of the public realm, personnel overseeing the installation of tactile paving, Local Authority Access Officers (who are tasked with ensuring that the public realm and the built environment are accessible to all potential users), consultants fulfilling any of the aforementioned functions.	**Who is it for?** All practitioners in the public and private sector who are responsible for providing public transport and/or pedestrian facilities. Organisations representing the interests of older and disabled people and others who might encounter difficulties when using public transport or the pedestrian environment. It is also a digest of good practice that informs older and disabled people of the standards of accessibility that they are entitled to expect. **Who will use it?** Designers of the public realm; providers of public transport facilities and infrastructure; Local Authority Access Officers and others with responsibility for overseeing the accessibility of public transport services; organisations

	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility
	Who is the end beneficiary? People who are blind or partially sighted, but also wheelchair users and others who might benefit from dropped kerbs in pavements, since, without tactile surfaces, the provision of dropped kerbs would be neither safe nor reasonable.	representing the interests of older and disabled people and others who might encounter difficulties when using public transport; consultants fulfilling any of the aforementioned functions. Who is the end beneficiary? Although the main purpose of these guidelines is to provide good access for disabled people, designs that satisfy their requirements also meet the needs of many other people. Those who are travelling with small children or are carrying luggage or heavy shopping will all benefit from an accessible environment, as will people with temporary mobility problems (e.g. a leg in plaster) and many older people. Public transport operators who will maximise the patronage of their services if the public transport system and the pedestrian environment that serves it are both accessible to all.
Where	Where is the geographic scope? UK **Where is the scope specifically?** The public realm, particularly the pedestrian environment; Railway stations; shared space cycle paths.	**Where is the geographic scope?** Although published by the Department for Transport, which has jurisdiction for the UK, the document is available as guidance for any provider of public transport or pedestrian facilities. **Where is the scope specifically?** The public realm, particularly the pedestrian environment, all public transport environments.

C.2 Long-list of review documents

A long-list of accessibility-guidance documents was chosen from; the project team's existing understanding of available key documents; a word search using the Transport Advice Portal (TAP)[2]; the TRID database of research; the Accessible Transport area of the .gov.uk portal[3]; and discussions with stakeholders to reveal any remaining key literature. The review includes both current and superseded/older literature.

C.2.1 Research Question of literature review selection

The purpose of the literature review is to understand what might be missing from the *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces* documents. The following research question for the literature review is therefore defined:

What are the scopes of alternative documentation providing information regarding public realm areas with relation to accessibility for all?

The terms of the search are:

Authors

- UK government body (for example: Department for Transport);
- International or foreign government or intergovernmental organisation;
- Professional Institutions (for example: CIHT);
- Corporate or public sector body (for example: Network Rail, ATCO)
- Campaigning organisation or charity (for example: RNIB)
- Standards organisations (for example: BSI, ISO)

Topic / Search Terms

 "Accessibility", "Public Realm", "urban realm", "guidance", "tactile paving", or pseudonyms for either Disability, Age.

Language

Available in English

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[2] The Transport Advice Portal (TAP) is a joint venture involving the Department for Transport (DfT) and the Chartered Institution of Highways and Transportation (CIHT). http://tap.iht.org/

[3] The Accessible Transport area of the .gov.uk portal is available at https://www.gov.uk/government/policies/accessible-transport

Date range

No date limit

C.2.2   Shortlist scoring mechanism

In order to shortlist the documents for review, points are given for document attributes as per the three tables below. The full scoring for each document is given in C.8.

1. Usefulness of document

Content	Scoring
Offers alternative content to answer the literature research question	1
Offers some links to answering the research question	2
Is superseded information (suggesting that it is no longer useful)	3
Offers very limited relevant information	4

2. Timing of document

Timing	Scoring
Published after 2013	1
Published between 2002 and 2012	2
Published before 2002	4

3. Hierarchical status of document

Publishing organisation	Scoring
UK government body	1
Standards organisation	1
International or foreign government or intergovernmental organisation	2
Professional Institution or research body	2
Campaigning organisation	3

C.2.3   Review of document long-list

Documents were then selected via this process, read, and then a synopsis of each document given to understand its relative value. The results of this are shown in Table 3. They are listed by score and then in alphabetical title order. URLs where available have been provided where these are found to be static.

Table 3 – Long-list of review documents

Document title	Publisher	URL	Synopsis	Score
Accessible rail transport	Department for Transport	https://www.gov.uk/government/publications/accessible-rail-transport	This document explains what the government is doing to provide an accessible rail system. It makes reference to the Code of Practice that guides station operators on the standards of access required, emphasising that they must adhere to the standards set out in this Code as a condition of holding a train operating company's licence. In terms of the accessibility of trains, the document outlines accessibility requirements for heavy rail as set out in The Persons with Reduced Mobility Technical Specification for Interoperability, as set out in The Railways (Interoperability) Regulations 2011. It also covers the accessibility requirements for light rail and metro systems, as set out in the Rail Vehicle Accessibility (Non Interoperable Rail System) Regulations 2010 (RVAR 2010). Both of these sets of regulations require that all rail vehicles must be accessible by no later than 1 January 2020. The document explains that the RVAR have standardised the requirements for meeting the needs of disabled passengers in all new rail vehicles entering service in Great Britain since 31 December 1998 in terms of, for example, providing access for wheelchair users, the design and location of handrails, handholds and control devices, and the provision of passenger information systems and similar equipment. Details are given on the targeted compliance of heavy rail fleets, as part of the DfT's on-going work with the rail industry and DPTAC to encourage full compliance with the RVAR by 2020. Information is provided on the DfT's published research on platform gaps at rail stations, to gain a better understanding of	3

Document title	Publisher	URL	Synopsis	Score
			what constitutes an acceptable gap between step and platform for disabled passengers, and also on its 2005 research into train door warning systems for sensory impaired people, conducted to establish whether visual and audible warnings emitted when a train door opens, or is about to close, help sensory impaired people.	
Accessible railway stations: design standards	Department for Transport	https://www.gov.uk/government/publications/accessible-railway-stations-design-standards	This is a Code of Practice concerning the provision of accessible trains and rail infrastructure. Published in March 2015, it supersedes all previous similar documents, including "Accessible train station design for disabled passengers: a code of practice", and includes modifications to the European Commission Regulation (EU) No 1300/2014. It covers a wide range of issues, including pre-travel information, car parking facilities, approaches to the station, doors, lighting, floor surfaces, station furniture, signage, audible announcements, ticket sales points, lifts & escalators, ramps, steps & stairs, platforms, waiting facilities, toilets and staff training.	3
Appropriate public-realm design for the blind and partially sighted	Bolton Council	Proceedings of the Institution of Civil Engineers - Civil Engineering List of Issues Volume 168, Issue 6 https://www.icevirtuallibrary.com/doi/pdf/10.1680/cien.14.00046	This is a journal article focusing on shared space concepts in urban centres which omit the usual segregation of a kerb between the footway and carriageway. The article highlights the needs of vulnerable road users such as people who are blind or partially-sighted. The paper evaluates current design guidance and the approaches used to accommodate blind and partially sighted people, and then presents evidence of a study showing blind and partially sighted people's interpretations of surface types (such as tactile paving) and how these are used to navigate. The results of the research were then implemented in public-realm design within Bolton town centre and showed that	3

Document title	Publisher	URL	Synopsis	Score
			blind and partially sighted participants were able to identify many surface types, not just a kerb face, and use these as the means to identify their location. There was evidence of differences between the research results and *Guidance on the Use of Tactile Paving*.	
BS 8300-1:2018 - Design of an accessible and. inclusive built environment. External environment. Code of practice	British Standards Institute	https://shop.bsigroup.com/ProductDetail/?pid=000000000030335801	Relates to design of the external environment (in contrast to Part 2 which relates to buildings) including areas around and leading up to buildings. The synopsis from the BSi website states "A wide range of inclusive design solution guidance already exists. This standard brings that diverse advice together to provide a definitive source of authoritative recommendations on inclusive and accessible design for the external built environment". Furthermore the standard is provided for "Built environment professionals engaged in planning, design and management of the external environment, especially local authority planners in the highways, street enhancement and open space departments".	3
Building Confidence - Improving travel for people with mental impairments.	UK.gov	https://www.gov.uk/government/publications/exploring-the-barriers-to-travel-for-people-with-mental-impairments	This report examines the barriers to travel for people with mental impairments such as dementia, learning disabilities and mental health conditions, and identifies suitable interventions for overcoming such barriers. It focuses on both enhancing the mental skills of travellers, and modifying the travel environment to make it easier for people to make their journeys. There is emphasis on people's ability to remember information obtained previously, comprehension of information received from outside sources, the ability to take decisions based on this information, interpersonal communication skills, confidence in travelling alone, and the ability to behave in line with contemporary social	3

Document title	Publisher	URL	Synopsis	Score
			norms. The scope of the document includes both life-long conditions, and cognitive impairments usually developed later in life, such as dementia. The report was produced by a member of the Disabled Persons Transport Advisory Committee (DPTAC).	

Building Regulations (in particular Part M – Access to and use of buildings)	UK Government	https://www.gov.uk/government/collections/approved-documents	This version of Part M came into force on 1st October 2015. The document comprises sections on:
			 0. Volume 1: Access to and use of dwellings
			 1. Visitable dwellings
			   o Approach to the dwelling
			   o Private entrances and spaces within the dwelling
			 2. Accessible and adaptable dwellings
			   o Approach to the dwelling
			   o Private entrances and spaces within the dwelling
			 3. Wheelchair user dwellings
			   o Approach to the dwelling
			   o Private entrances and spaces within, and connected to, the dwelling
			 Tactile information is only detailed with respect to lifts. Gradient information is provided for accesses across the categories 1. 2. and 3. Parking is detailed and there is potential for overlap or inconsistency with *Inclusive Mobility* and/or TAL 5/95 Parking for Disabled People.
				3

ISO/TR 13570-2:2014 Wheelchairs -- Part 2: Typical values and recommended limits of dimensions, mass and manoeuvring space as	International Standards Organisation	https://www.iso.org/standard/41687.html?browse=tc	ISO/TR 13570-2:2014 lists the typical values and recommended limits of dimensions obtained from measurements taken in accordance with ISO 7176‑5 (see above). These include wheelchair dimensions (ready for occupation and folded or dismantled), space required for pivoting or reversing between limiting walls, other dimensions relating to wheelchair use, and	3

Document title	Publisher	URL	Synopsis	Score
determined in ISO 7176-5			determination of the mass of the wheelchair. The standard is intended for use by prescribers, clinicians, wheelchair users and manufacturers. The document provides typical values and recommended limits for occupied wheelchairs, and for operating areas for tasks encountered in everyday life. It also contains typical values and recommended limits of the technical dimensions critical to the performance wheelchairs. The document refers to manual wheelchairs, powered wheelchairs and mobility scooters.	
Streets Toolkit	Transport for London	https://tfl.gov.uk/corporate/publications-and-reports/streets-toolkit	The Transport for London Streets Toolkit is a suite of documents, including the London Cycle Design Standards (LCDS) documented above. The document is described as: "Design guidance documents to help planners, engineers, designers and other practitioners create high quality streets and public spaces. Includes guidance on streetscape, cycle infrastructure and accessible bus stops". At the time of writing, the Streets Toolkit comprises: • Streetscape Guidance • Sustainable Drainage Systems (SuDS) • London Cycling Design Standards (LCDS) • Urban motorcycle design handbook • Accessible Bus Stop Design Guidance • Kerbside Loading Guidance The purpose of the Streetscape Guidance (2017 Revision 1 reviewed here) "is to set a high standard for the design of London's streets and spaces by applying best practice design principles". Tactile paving is described in case studies, including Exhibition Road; in the footway materials section with diagrams, such as "tactile paving inset into an inspection cover"; and there	3

Document title	Publisher	URL	Synopsis	Score
			is a detailed and specific Tactile Paving section at section 9.2. This section notes that "Along with other local authorities in London, [TfL] have become increasingly aware that rigid application of the national guidance can have a detrimental impact on the legibility of tactile provision and negatively impact on the visual quality of the footway…Streetscape Guidance recommends a number of departures from national guidance to overcome these challenges". The Accessible Bus Stop Guidance notes that "There are many different user groups who have different needs with regard to bus stop design. Specific user groups that need special consideration include those customers that use a wheelchair, have limited mobility, are blind or visually impaired, are hearing impaired, have learning difficulties and older people. It is also important that designers consider these different user needs such as those who use wheelchairs, crutches, walking sticks, canes, guide dogs, mobility scooters, shopping trolleys, and buggies accessing bus services. This guidance "updates the 'Accessible Bus Stop Guidance note BP1/06' published in January 2006 and its predecessor documents". The guidelines have been "developed in the context of the Equality Act 2010, the Mayor's Transport Strategy and the Accessibility Implementation Plan". A bus stop must meet the following criteria to be fully compliant as an accessible bus stop: - Clearway in place - Kerb >100mm - Access free of impediments	

Document title	Publisher	URL	Synopsis	Score
			Text and diagrams are provided detailing the objectives of an ideal bus stop layout, including the relationship between buses and kerbs. Bus stop location, spacing and stop capacity are examined along with passenger waiting areas, bus borders, kerb profiles and heights, and interaction with cycle facilities.	
Accessibility Action Plan Consultation	Department for Transport	https://www.gov.uk/government/consultations/draft-transport-accessibility-action-plan	The Department for Transport is currently analysing feedback from a formal consultation on its Draft Accessibility Action Plan, which included an 'Action' to commission new research to ensure that *Guidance on the Use of Tactile Paving Surfaces* fully reflects modern standards and changes in pedestrian environments. It is unclear whether the results of this consultation will be available for the current project.	4
Accessible journey planning data	Department for Transport	https://www.gov.uk/government/publications/accessible-journey-planning-data	This source, published in October 2014, deals with accessible journey planning, and also a description of the accessibility of public transport stations, stops and services. The information was drawn from a number of sources, including Transport Direct, operators and local authorities. The current *Inclusive Mobility* document has a section on Signage and Information, but this only deals with the legibility of information, the physical positioning of signs and the audible information. The current document does not cover the various media that are now available for obtaining pre-trip and on-trip information.	4
BS 5489-1:2013 - Code of practice for the design of road lighting. Lighting of roads and public amenity areas	British Standards Institute	https://shop.bsigroup.com/ProductDetail/?pid=000000000030217237	BS 5489-1:2013 is a revision of the British Standard for road lighting design that provides additional guidance to the BS EN 13201 series. This document applies to all lighting professionals in the UK that work in local government, large engineering companies, and	4

Document title	Publisher	URL	Synopsis	Score
			lighting manufacturers and consultancies. It provides specific guidance on selecting lighting classes that will help to design more energy efficient road lighting schemes and gives recommendations for general principles of road lighting including aesthetic, technical aspects, operation and maintenance. This standard considers the design of lighting for all types of highways, public thoroughfares, pedestrian and cyclists' subways as well as bridges. Whilst also covering the design of lighting for urban centres and public amenity areas, aerodromes, railways, coastal waters, harbours and navigable waterways.	
Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts (recast).	European Commission	https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/lifts_en	This is an EC Directive on the harmonisation of laws relating to lifts and safety components for lifts. 2014/33/EU covers safety rules for the construction and installation of lifts, fire resistance tests and also design rules, calculations and tests of lift components. Part 70 of the Directive covers the accessibility of lifts, which includes requirements for disabled people. Section 8.4.5 of *Inclusive Mobility* refers to lifts. Section 8.4.5 of *Inclusive Mobility* refers to lifts.	4
London Cycle Design Standards (LCDS)	Transport for London		The LCDS can be found within the wider Streets Toolkit suite of documents (see below). The LCDS sets out requirements and advice for cycle network planning and for the design of dedicated cycle infrastructure, cycle-friendly streets and cycle parking. This guidance applies to all streets in London and must be adhered to for relevant funding programmes. In October 2016, minor updates were made to the document, for consistency with the revised Traffic Signs Regulations and	4

Document title	Publisher	URL	Synopsis	Score
			General Directions (2016). The LCDS comprises the following chapters: 1. Design requirements 2. Tools and techniques 3. Cycle-friendly streets and places 4. Cycle lanes and tracks 5. Junctions and crossings 6. Signs and markings 7. Construction, including surfacing 8. Cycle parking The LCDS refers to tactile paving in Chapter3, Chapter 4, Chapter 5, and Chapter 7 (detailed); disabled cyclists in Chapter 1, Chapter 3, Chapter 4, Chapter 7, and Chapter 8; and other disabled road users and the Equality Act in Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 7, and Chapter 8.	
Manual for Streets 2 – Wider Application of the Principles (2010)	Department for Transport	https://www.gov.uk/government/publications/manual-for-streets-2	Manual for Streets 2 – Wider Application of the Principles (MfS2) builds on the guidance in Manual for Streets (MfS1) exploring in greater detail how the MfS1 advice in relation to residential streets can be applied to busier streets and non-trunk roads, thus helping to fill the perceived gap in design guidance between MfS1 and the Design Manual for Roads and Bridges (DMRB). Tactile paving is referred to under sections relating to: shared space, crossings and in case studies. The needs of the mobility impaired, including wheelchair users, and blind and partially sighted people are considered in number of sections including: pedestrian needs and footways; carriageway gradients; refuges, medians and central reservations; junctions; obstacles to visibility; and street furniture; along with within	4

Document title	Publisher	URL	Synopsis	Score
			case studies.	
Pedestrian Comfort Guidance for London – Guidance document	Transport for London		This guide and accompanying spreadsheet is aimed at anyone involved in the planning of London's streets, whether TfL staff, local authority officers, elected members, consultants assessing the impact of development proposals, developers, or their agents. It is intended to ensure that the design of pedestrian footways and crossings are appropriate to the volume and type of users of that environment. The guidance is applicable whether evaluating a new design or assessing an existing footway. The primary objective of the guidance is to assist those responsible for planning London's streets to create excellent pedestrian environments through a clear, consistent process during the planning and implementation of transport improvement projects. The document sets out the process of undertaking a Comfort Assessment, evaluating the results of that assessment, and reviewing the impact on the scheme. This research was commissioned as TfL identified a need for consistent guidance for what footway widths should be used for comfortable movement in different situations, tailored to the needs of London. It is based on a detailed study of over 75 sites across the Transport for London Road Network.	4
The Traffic Signs Regulations and General Directions 2016	HM Government	http://www.legislation.gov.uk/uksi/2016/362/contents/made	This piece of Legislation contains detailed requirements for specifications of traffic signs on the road network across Great Britain. Detail is provided for such elements as: prescription of signs; authorisations; letters, numerals and other characters; expressions of time and distance and for parking restrictions; dimensions and design of signs; illumination of upright signs and	4

Document title	Publisher	URL	Synopsis	Score
			associated plates; illumination of road markings; height of road markings and size of studs fitted with reflectors, retroreflecting material or a light source; provision about upright signs and associated plates and structure warning markings; provision about placing of signs on vehicles; provision about the removal of temporary signs; studs that provide illumination; mounting of upright signs; the backs of, and backing boards for, upright signs; diagram colours. Separate schedules are provided, giving example diagrams and information for different traffic sign types and categories.	
Access to Air Travel for Disabled Persons and Persons with Reduced Mobility - Code of Practice	Department for Transport	http://webarchive. nationalarchives.go v.uk/+/http://www. dft.gov.uk/transpo rtforyou/access/avi ationshipping/acce sstoairtravelfordisa bled.pdf	This is a Code of Practice, from July 2008, for making air travel accessible. It provides detailed information along similar lines to *Inclusive Mobility* but with much less emphasis on dimensions and measurements. It includes some issues that are specific to air travel, such as seat reservation policy, check-in facilities, airport security procedures, customs procedures, boarding for wheelchair users, aircraft design, catering, the carriage of mobility equipment, transfer arrangements, baggage retrieval and facilities for assistance dogs This July 2008 document by the Department for Transport states that: "Opportunities for air travel have grown significantly in recent years, with cheaper flights serving a wider range of destinations. For many people, this has made flying a more common experience. It is a matter of equality that disabled people and people with reduced mobility should have opportunities for air travel comparable to those of other people. However, for	5

Document title	Publisher	URL	Synopsis	Score
			people with a disability or mobility difficulty, the prospect of attempting a trip by air can seem fraught with potential difficulties. One bad experience can put off a potential customer from flying again. The purpose of the Code of Practice is to improve the accessibility of air travel to disabled people and people with reduced mobility. It covers the whole journey experience, from accessing information at the booking stage through to arriving at the final destination.	
Creating Better Streets: Inclusive and Accessible Spaces - Reviewing shared space	CIHT	http://www.ciht.org.uk/en/document-summary/index.cfm/docid/BF28B40D-9855-46D6-B8C19E22B64AA066	This recently published (January 2018) document notes the context set by the Equality Act 2010. The document incorporates a review of shared space schemes but notes that "This review is not a critique or audit of individual schemes but rather seeks to draw conclusions from an analysis of a range of schemes to develop recommendations that will lead to better outcomes in the future." The document states that: "The issues around shared space have often been controversial and the recommendations that this review has made, if put into place, will help make our streets into the safe, inclusive environments that we need them to be." The document makes a number of recommendations and requests for clarity from Government, which the CIHT made to the Women and Equalities Select Committee in December 2016. These include that "that the consideration of the built environment has to include highways and transport networks and the services they deliver, as they are often viewed separately from buildings". The document provides a set of summary objectives for street design, listing relevant statutory	5

Document title	Publisher	URL	Synopsis	Score
			duties and potential measurable outcomes. The headline objectives are given as: Inclusive Environment, Ease of Movement, Safety and Public Health, Quality of Place and Economic Benefit. For some user groups such as wheelchair users and older people, there was evidence that particular features of certain schemes had improved their experience. However, some visually impaired users were reported as finding the new environments more hostile and consequently said that they altered their behaviour to avoid them. Detailed conclusions are drawn (across the shared-space schemes that the document considers) for: crossings, kerbs, tactile paving and technology.	
Design Manual for Roads and Bridges HD 42/05 – Non-motorised User Audits	Department for Transport		This document describes the requirements for Non-Motorised User Audit for all trunk road schemes including motorways. It describes the stages at which NMU audits must be carried out and the procedures to be followed, and gives guidance on the issues of possible concern to non-motorised users. HD 42/05 states in paragraph 1.5 that "NMU Audits require particular consideration to be given to the needs of disabled people, who may use any of these modes or other equipment such as wheelchairs". Annex A gives guidance and prompts for those undertaking NMU Audits and includes, inter alia, frequently encountered problem categories: "Additional Issues for Visually Impaired People" and "Additional Issues for Wheelchair and Pushchair Users/Mobility Impaired People". The Preliminary Design section in Annex A includes an Accessibility section relating to consideration of NMU groups such as: people with mobility	5

Document title	Publisher	URL	Synopsis	Score
			impairments; people with visual impairments; people with hearing impairments; children and younger people; and older people.	
Design Manual for Roads and Bridges TA 91/05 – Provision for Non-Motorised Users	Department for Transport		Forming part of the Design Manual for Roads and Bridges (DMRB), TA 91/05 provides guidance in relation to provision for non-motorised users, through the design and implementation of both on- and off- carriageway provision including crossings, junctions and general design considerations. TA 91/05 refers readers to *Inclusive Mobility* and *Guidance on the Use of Tactile Paving Surfaces* along with draft LTN 2/04 and TA 57 'Roadside Features' in relation to tactile surfaces. TA 91/05 states in paragraph 2.4 that "The term 'disabled people' covers a wide range of people with physical, sensory or mental impairment, with different needs and abilities. There are various forms of disability, as follows: • Mobility Impaired • Visually Impaired • Hearing Impaired • People with reaching, stretching and dexterity problems • People with learning disability" TA 91/05 continues, in paragraph 2.5, to state that "Approximately 14% of the population have physical, sensory or mental impairments that cause mobility difficulties. Many people, particularly older people, have more than one impairment. Able-bodied people also encounter temporary mobility impairment, for example when pushing a baby's buggy, carrying shopping or luggage and escorting children." Tactile paving is referred to in relation to refuge islands	5

Document title	Publisher	URL	Synopsis	Score
			(paragraph 6.19) and bus stops (paragraph 8.39). Tactile and audible signals at crossings are referred to in paragraphs 6.35 and 6.45. The suitability of different surface types for wheelchair users is noted in paragraph 8.5.	
Equality Act 2010	HM Government	https://www.legislation.gov.uk/ukpga/2010/15/contents	The document legally protects people from discrimination in the workplace and in wider society. It replaced a number of previous anti-discrimination laws with a single Act. The legislation applies to central and local government, health authorities, regional development agencies and police and crime commissioners. The Act makes it unlawful to discriminate against someone on the grounds of any of the protected characteristics: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation. The main types of discrimination are: Direct, Indirect, Harassment, Victimisation. The Act includes a Duty to make adjustments. These adjustments can relate to physical features such as (a) a feature arising from the design or construction of a building, (b)a feature of an approach to, exit from or access to a building, (c) a fixture or fitting, or furniture, furnishings, materials, equipment or other chattels, in or on premises, or (d) any other physical element or quality.	5
Local Transport Note 1/11 Shared Space	Department for Transport	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3873/ltn-1-11.pdf	This October 2011 published Local Transport Note "is mainly concerned with the use of shared space on links". The LTN notes that "Particular emphasis is placed on stakeholder engagement and inclusive design, where the needs of a diverse range of people are properly considered at all stages of the development process".	5

Document title	Publisher	URL	Synopsis	Score
			The document highlights potential areas of concern for some groups of people, noting: "While shared space appears to work well for most people, some disabled and older people can feel apprehensive about using the space, particularly where a level surface is used. In order to address this, this LTN adopts the concept of 'comfort space'. Comfort space is defined thus: An area of the street predominantly for pedestrian use where motor vehicles are unlikely to be present." The LTN recognises that "The Duties under the Equality Act 2010 are particularly relevant", stating that "Authorities will need to consider how different people are likely to be affected by new scheme proposals and due regard should be given to the effect they might have on those protected by the Duty". The 'Detailed Design' chapter includes a section on Tactile paving; this refers readers to the *Guidance on the use of Tactile Paving Surfaces* but notes that "In streets with a level surface, tactile paving is sometimes used as a delineator strip between the notional carriageway and the footway – a use not covered in the tactile guidance. Corduroy paving, which conveys the message 'hazard, proceed with caution', is usually used".	
LTN 1/12 – Shared Use Routes for Pedestrians and Cyclists	Department for Transport	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/9179/shared-use-routes-for-pedestrians-and-cyclists.pdf	LTN 1/12 supersedes LTN 2/86 Shared Use by Cyclists and Pedestrians (DoT, 1986). The document notes that "It should be read in conjunction with LTN 2/08 Cycle Infrastructure Design (DfT, 2008b) and *Inclusive Mobility* – A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure (DfT, 2002a)". Specific sections of LTN 1/12 supersede sections of LTN 2/08; for example the LTN 1/12 section on width requirements (from paragraph 7.28) supersedes section 8.6 of LTN 2/08. The document structure includes: Scope, The Equality Act;	5

Document title	Publisher	URL	Synopsis	Score
			Scheme Development; Initial Appraisal; Underlying Principles (core design principles; cyclist categories; hierarchy of provision; traffic speeds and flows; hybrid cycle tracks); Site Assessment; General Design Considerations (pedestrians, cyclists, frontages, signing and the environment, lighting, costs, maintenance, audit); Detailed Design Issues (segregation, width requirements, pedestrian and cycle flows, provision alongside carriageways, road crossings); Stakeholder Engagement; Post Implementation; and Legal Issues.	
LTN 2/09 Pedestrian Guardrailing	Department for Transport	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328996/ltn-2-09__Pedestrian_guardrailing.pdf	The scope of this LTN is the assessment of the need for the installation or removal of guardrailing on the existing road network. The LTN builds upon the advice given in Manual for Streets, Traffic Management and Streetscape and Mixed Priority Routes: Practitioners' Guide. The LTN notes that "Pedestrian guardrailing is used across a wide range of types of site… The main purpose of guardrailing is to improve safety by trying to prevent pedestrians from crossing the road at an inappropriate place or from straying into the road inadvertently." The LTN goes on to document the assessment procedure. The current advice, set out in the LTN at paragraph 2.1.10 is: "In general, it is recommended that the installation of new guardrailing should not be considered if alternative safety measures could be used." The document then goes on to set out the research undertaken across a wide range of street and junction types. The results of this research conclude: "Data for each of the different types of sites within the study, i.e. signal controlled, roundabout and	5

Document title	Publisher	URL	Synopsis	Score
			priority junction sites, refuge islands, and Zebra, Pelican and Puffin crossings, indicated that traffic speed, traffic flow and pedestrian flow did not differ significantly between sites surveyed with and without guardrailing."	
Making Rail Accessible: Helping older and disabled passengers	Network Rail	https://www.networkrail.co.uk/wp-content/uploads/2017/01/Making-Rail-Accessible-helping-older-and-disabled-passengers.pdf	This document has its basis in the Equality Act 2010. The document has aims for all stations to be: safe; accessible and inclusive; efficient in the way natural resources and waste are managed; focussed on the needs of all customers; and staffed by a competent, high quality team. A table of Station Accessibility Information is provided for the 18 stations managed by Network Rail. The document includes a focus on those with protected characteristics, stating: "We want to make travelling by train as easy as possible for everyone who uses the railway network, irrespective of age, pregnancy, disability, race, religion or belief, sex, gender, or sexual orientation. We recognise that some passengers may need additional support at a station or to board or alight from a train. It may be difficult to simply turn up and travel as some stations may not be fully accessible to all our customers." The document gives high-level advice about: entrances to stations; announcements and visual information; information points and displays; ticket machines; ticket gates; luggage; left luggage; ramps; facilities provided by third parties; and emergency procedures. There are also sections on making connections and disruption to facilities and services.	5
Manual for Streets (2007)	Department for Transport	https://www.gov.uk/government/upl	Manual for Streets superseded Design Bulletin 32 (DB32) and its companion guide Places, Streets and Movement. Manual for	5

Document title	Publisher	URL	Synopsis	Score
		oads/system/uploads/attachment_data/file/341513/pdf manforstreets.pdf	Streets is focussed on residential street environments. The later Manual for Streets 2 – Wider Application of the Principles (see below) applied the guidance to a wider range of street types. The document helps designers to differential between Place and Movement functions within a residential street environment. The document revised key geometric design criteria [such as visibility splays and kerb radii at junctions] to allow streets to be designed as places in their own right while still ensuring that road safety is maintained. Section 2.7 refers to "Disability discrimination" but predates the Equality Act, referring instead to the Disability Discrimination Act 2005. The needs of disabled users are also indicated in Section 5.10 Reducing Clutter and throughout: Chapter 6 – Street Users' Needs; Chapter 7 – Street Geometry; and Chapter 8 – Parking, this chapter refers readers to Traffic Advisory Leaflet 05/95, *Inclusive Mobility*, and BS 8300: 2001.	
Sustrans Design Manual – Handbook for Cycle-Friendly Design	Sustrans	https://www.sustrans.org.uk/sites/default/files/file_content_type/sustrans_handbook_for_cycle-friendly_design_11_04_14.pdf	This April 2014 document contains a concise illustrated compendium of technical guidance relating to cycling: it can stand alone as a 'tool box' of ideas but also links to a library of relevant on line resources. It is very visual but contains the essential technical details, and was inspired by earlier guidance produced by the City of Edinburgh Council. Details of widths, gradients and different options for segregation of routes between pedestrians and cyclists are presented graphically with reference to tactile paving where applicable. Typical minimum widths required by pedestrians and wheelchair users are presented under the heading "Understanding User Needs".	5
TAL 05/05 Pedestrian	Department	http://www.google	TAL 05/05 is in four parts:	5

Document title	Publisher	URL	Synopsis	Score
Facilities at Signal-controlled Junctions	for Transport	.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwjp9-HojdDaAhVhJ8AKHbgDA1UQFggzMAI&url=http%3A%2F%2Fwebarchive.nationalarchives.gov.uk%2F20120606202850%2Fhttp%3A%2Fassets.dft.gov.uk%2Fpublications%2Ftal-5-05%2F5-05_3.pdf&usg=AOvVaw10HCHPPcdGKQR9ci_DuN3k [part three]	Part 1: pedestrian crossing options and alternatives Part 2: pedestrian crossing points at signalised junctions Part 3: markings, signals, buttons, guardrailing, detection, pedestrian delay, audible and tactile signals Part 4: tables and detail, including staggered-crossing options Overall Part 3 is the most relevant to this RQ12 document, as it provides details of facilities for those with specific mobility needs. Relevant to use by those with specific disability or mobility needs, Part 3 includes sections on the design and layout of: • Crossing studs • Push buttons and Pedestrian Demand Units • Guardrailing • Audible and Tactile Signals	
Disabled people: attitudes towards travel	Department for Transport	https://www.gov.uk/government/publications/disabled-people-attitudes-towards-travel	This is research, published as recently as November 2017, into the travel behaviour and attitudes to travel of disabled people in the UK. The main findings were: 1. Disability is an important factor for individual travel behaviour and changes in behaviour over time; 2. Disabled people should not be viewed as a uniform group, as travel behaviour and attitudes vary according to characteristics such as age and type of disability; 3. Behaviour and experiences vary by mode of transport and different ways of using the different modes of transport.	6
Guidance to local	Department	https://www.gov.u	Published in April 2013, this document updates previous local	6

Document title	Publisher	URL	Synopsis	Score
authorities on assessing eligibility of disabled people in England for concessionary bus travel	for Transport	k/government/publications/guidance-for-local-authorities-on-eligibility-for-disabled-people	authority information relating to assessing eligibility for concessionary bus travel, referring to welfare reforms and the introduction of the Personal Independence Payment scheme.	
Inclusion by Design	CABE	https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf	This is a very high-level, non-technical brochure to raise awareness of how buildings, and so society, can be made to feel more welcoming and inclusive for everyone. It argues that the design of buildings and spaces has a strong influence on the quality of people's life, particularly for those who are more vulnerable. It explains the importance of fostering sense of belonging, encouraging feelings of security, removing real and imagined Barriers between communities, and fostering understanding and a generosity of spirit. The document emphasises how designing a built environment that is accessible and inclusive can contribute to promoting a more equal, inclusive and cohesive society. A broad meaning of inclusion is defined, going beyond mere physical access.	6
TAL 5/95 Parking for Disabled People	Department for Transport	http://tsrgd.co.uk/pdf/tal/1995/tal-5-95.pdf	This 1995 document describes the location and design of parking such that is can be used conveniently by disabled people. The document is considerably dated in terms of the types of disabilities considered and their implications for users of parking. Also superseded terms such as "Orange Badge Scheme" are also present. As a guide to the location of disabled parking to facilities, table 1 sets out the maximum walking distance without a rest according to	6

Document title	Publisher	URL	Synopsis	Score
			Disability (only "visually impaired", "wheelchair uses", "ambulatory without walking aid" and "stick users" are considered). The document refers to "Reducing Mobility Handicaps" from the Institution of Highways and Transportation [sic]. Table 2 refers to the recommended number of [disabled parking] bays in off-street car parks. The TAL refers to the Road Traffic Regulation Act 1984 and Traffic Signs Regulations and General Directions. Care should be taken in ascertaining whether these references are up-to-date. Further sections consider parking meters, pay and display machines, and barrier controls. This document has overlap with the content in Section 5 'Car Parking' of *Inclusive Mobility*.	
The Design of Streets with Older People in Mind	Inclusive Design for Getting Outdoors (I'DGO) research project	https://www.idgo.ac.uk/design_guidance/pdf/DSOPM-Tactile%20Paving-120904.pdf	Design Guide 003 of this wider guidance relates specifically to tactile paving. It is an output of the Inclusive Design for Getting Outdoors (I'DGO) research project, which aims to support those who plan, design and maintain the public realm (and is supported by the Department for Transport). A priority for I'DGO is the 'walkability' of local neighbourhoods, particularly with regard to the safety and comfort of footways. The advice that it provides is based on the views of over 1,400 pedestrians, street audits, laboratory tests and existing sources of UK guidance. Specifically, it includes advice on the siting, laying and maintenance of blister paving used at pedestrian crossings and corduroy paving warning of a hazard, covering which colours and materials to specify. This document argues that, in spite of the usefulness of tactile	6

Document title	Publisher	URL	Synopsis	Score
			paving for blind and partially-sighted people, many older participants in studies have expressed concerns about falling or feeling unstable on tactile surfaces. It therefore calls for a better understanding of the extent and implications of incorrectly designed and laid tactile paving, including requirements for 'toe clearance' when negotiating paving 'blisters', and their potential slip hazard. The Design Guide quotes a report by Dr Marianne Loo-Morrey: "Tactile Paving Survey. Report Number HSL2005/07", (published by the Health and Safety Laboratory, in 2005).	
Using mobility scooters and powered wheelchairs on the road	Department for Transport	https://www.gov.uk/government/publications/mobility-scooters-and-powered-wheelchairs-on-the-road-some-guidance-for-users	This document provides advice for users of mobility scooters on the safe use of their scooter, and on their responsibilities both legally, and in terms of the Confederation of Passenger Transport Voluntary Code of Practice.	6
Various – Blue Badge scheme	Department for Transport	https://www.gov.uk/government/collections/blue-badge-scheme	A number of reforms have been made to the Blue Badge Scheme, and several advice circulars have been published, since the publication of *Inclusive Mobility*. However, the current document merely provides details of the design of accessible parking spaces, and the number of spaces that should be provided. The running of the Blue Badge Scheme itself is currently not covered.	6
Wayfinding Project (July 2010)	RNIB Innovation	http://www.rnib.org.uk/knowledge-	This July 2010 report details the RNIB Innovation Unit's Wayfinding project; which formed part of RNIB's five year	6

Document title	Publisher	URL	Synopsis	Score
	Unit	and-research-hub/research-reports/travel-mobility-and-living-skills-research/wayfinding-project	strategy aimed at ending the isolation which blind and partially sighted people face. In particular, this project addressed Goal 8: that more blind and partially sighted people are able to make journeys independently. Phase 1 undertook a review of the current available solutions, including a: technology review; and a literature review. Phase 2: understanding the problem. The literature review found that usage of buses was a problem; lack of audible announcements on buses and at bus stops, and the difficulty in accessing bus information, especially when using unfamiliar routes were mentioned in particular. In connection with walking, the participants highlighted problems with pedestrian crossings in terms of provision of tactile paving, and the use of audible signals or rotating cones. Participants thought that there didn't seem to be a standard, and it can be difficult to know what to do.	
Wheelchair access in taxis and private hire vehicles	Department for Transport	https://www.gov.uk/government/publications/access-for-wheelchair-users-to-taxis-and-private-hire-vehicles	This source focuses on how licensing authorities can ensure that drivers of taxis and private hire vehicles comply with access requirements to their vehicle(s). It provides advice on how to designate vehicles as being wheelchair accessible, communicate new requirements to drivers, handle exemption applications from drivers, and to enforce the requirements. The current *Inclusive Mobility* document includes a very short section on the design of accessible taxi ranks.	6
Convention on the Rights of Persons with Disabilities 2012 ICT	Global Initiative for Inclusive ICT		The Global Initiative for Inclusive Information and Communication Technologies (G3ict) is an Advocacy Initiative of the United Nations Global Alliance for ICT and Development. It	7

Document title	Publisher	URL	Synopsis	Score
Accessibility Progress Report	(G3ict)		works with the Secretariat for the Convention on the Rights of Persons with Disabilities to promote digital accessibility and Assistive Technologies. G3ict contributes to producing the e-Accessibility Policy Toolkit for Persons with Disabilities: www.e-accessibilitytoolkit.org This particular document is a worldwide state of the art review of current access to, and accessibility of, information and communication technologies, including mobile communication media, television, computers, assistive technologies, digital interfaces and the Internet. It is also a Progress Report on the implementation of ICT accessibility policies and programmes.	
Design Manual for Roads and Bridges TA 90/05 – The Geometric Design of Pedestrian, Cycle and Equestrian Routes	Department for Transport		Forming part of the Design Manual for Roads and Bridges (DMRB), TA 90/05 provides guidance on the geometric design for NMU off-carriageway routes associated with trunk road or motorway improvement schemes. Tactile paving is only described in one location, within paragraph 9.3 relating to pedestrian crossings. The needs of disabled people are considered within: paragraph 1.1 "Particular consideration needs to be given to the needs of disabled people, who may use any of these modes"; paragraph 3.9 related to visibility splays; and paragraph 7.17 in relation to route segregation. Wheelchair users' needs are considered in paragraph 4.3 relating to horizontal alignment; and paragraph 9.4 in relation to ramp gradients at dropped kerbs.	7
Guidance on Local Transport Plans (2009)	Department for Transport		This 2009 guidance document applies to local transport authorities in England outside of London required to produce a Local Transport Plan under the Transport Act 2000, as amended by the Local Transport Act 2008. This guidance applies to Local	7

Document title	Publisher	URL	Synopsis	Score
			Transport Plans produced to cover periods after 2011. Although not specifically superseded, it is likely that elements of this guidance should now be read in conjunction with the Planning Practice Guidance: Transport Evidence Bases in Decision Making and Decision Taking (https://www.gov.uk/guidance/transport-evidence-bases-in-plan-making-and-decision-taking). This guidance is for producing local transport plans and does not give detailed design information, such as gradients, dimensions etc. However, paragraphs 23 and 24 in relation to Disabled People state: "23. Local transport legislation has, since 2000, contained an obligation for local transport authorities to have regard to the transport needs of older people and people with mobility difficulties when developing transport plans and policies. 24. The Local Transport Act 2008 adds a new requirement to have regard to the needs of disabled people, both in developing and implementing plans. This broadens the scope of local transport legislation to bring it in line with the Disability Discrimination Act".	
ISO 7176-5:2008 Wheelchairs -- Part 5: Determination of dimensions, mass and manoeuvring space	International Standards Organisation	https://www.iso.org/standard/46429.html?browse=tc	This standard specifies **methods for the determination** of wheelchair dimensions and mass, including the space and manoeuvring space needed by a 'reference wheelchair occupant' for manoeuvres commonly carried out in daily life. The document refers to manual wheelchairs, powered wheelchairs and mobility scooters. The standard's five annexes are: Annex A. Methods for determining technical dimensions important to the performance of the wheelchair; Annex B. Information on pivot width and reversing width; Annex C. Information on turning diameter; Annex D. Determining	7

Document title	Publisher	URL	Synopsis	Score
			wheelchair longitudinal axis and wheelchair centre-point; Annex E. Technical guidelines and interpretation for measurements for improving the understanding, design and construction of wheelchairs. This is a highly technical document specifying how the characteristics of wheelchairs should be designed and measured, rather than providing information on what those dimensions currently are; (see synopsis below).	
People with severe temporary impairments: advice to local authorities	Department for Transport	https://www.gov.uk/government/publications/people-with-severe-temporary-impairments-advice-to-local-authorities	This is a brief note that provides local authorities with advice on using existing powers to help meet the mobility needs of people with severe temporary mobility issues, who do not qualify for a Blue Badge.	7
Printed public transport information	Association of Transport Co-ordinating Officers	https://www.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/roadsandtransport/publictransport/busservices/ltpinformationstrategy1.pdf	This document refers to duties placed on Local Authorities under the Transport Act 2000 and the Disability Discrimination Act 1995. The document notes that "Decisions are ultimately a matter for individual local authorities, but this Code of Good Practice sets out standards which authorities should aim to achieve". The document has sections on: • Publications • Timetables – layout • Timetables – books and leaflets • Timetables – periods of operation	7
Sign Design Guide	Sign Design Society	http://www.signdesignsociety.co.uk/book/the-sign-	The Sign Design Guide is published jointly by the Sign Design Society and the Royal National Institute of Blind People (RNIB). The Sign Design Guide is concerned with making environments	7

Document title	Publisher	URL	Synopsis	Score
		design-guide/	accessible to everyone and addresses the concept of 'inclusive signage' The document is dated and still refers to the Disability Discrimination Act.	
Understanding the Needs of Blind and Partially Sighted People: their experiences, perspectives, and expectations	RNIB		This is a report, carried out in May 2009 by the University of Surrey, on behalf of the RNIB, on qualitative research into the experiences, needs and expectations of blind and partially sighted people in terms of how they can be supported to lead an independent and fulfilling life. Information was collected through 83 in-depth interviews with blind and partially-sighted people in England (including ten children aged 5 to 15), 18 interviews with informal carers and 22 interviews with representatives of sight loss-related organisations. In addition, ten 'case studies' (followed by a second interview) and ten 'accompanied walks' were carried out. Transport was just one of the issues covered in this research project.	7
Civilised Streets	CABE	https://www.designcouncil.org.uk/sites/default/files/asset/document/civilised-streets.pdf	Civilised Streets discusses recent "bold changes to street design, with the emergence of shared spaces which remove physical barriers and force drivers to consider pedestrians", debating whether such changes can make safer, more civilised streets, or merely "scarier streets". The document seeks to prompt further discussion among design professionals and lobby groups. It is aimed at policymakers and others involved in the design and management of streets. It balances the message contained in the UK Government's Manual for Streets (March 2007), which gave authority to the philosophy of emphasising the value of streets as places and spaces, and of a shift in emphasis from the car to the pedestrian, with disability legislation's requirement	8

Document title	Publisher	URL	Synopsis	Score
			for the needs of disabled people and other vulnerable space users to be considered first. The document draws upon "extensive discussions and focus groups" involving people involved in thinking about the way in which streets are used and designed. CABE is reacting, with this document, to "the widespread introduction of shared spaces", and how some people might be deterred from using streets that have been "designed to be more civilised".	
Effective Kerb Heights for Blind and Partially Sighted People	University College London (PAMELA)		This is a report on research commissioned by Guide Dogs, and carried out by University College London in its Pedestrian Accessibility Movement and Environment Laboratory (PAMELA), in October 2009. In 2007 UCL had conducted research, for Guide Dogs, to investigate the impact of 'shared space' schemes on the mobility of blind and partially-sighted people, with an emphasis on delineating a 'safe space' within such a shared space. The conclusion of this work was that a 30mm high kerb was not sufficient to be reliably detected by blind and partially-sighted people, whilst presenting a barrier for some wheelchair users. The October 2009 experiments had the objective of determining what kerb height blind and partially-sighted people could reliably detect. The conclusion was that a kerb height of 60mm would be required in order for there to be confidence that it would be detected. Crucially, however, the 2009 experiments did not consider the impact of such a kerb on the mobility of wheelchair users and other people who have difficulty with walking, nor did it investigate the potential impact on children or people with learning disabilities.	8
Testing Proposed	University		In 2007, Guide Dogs commissioned University College London,	8

Document title	Publisher	URL	Synopsis	Score
Delineators to Demarcate Pedestrian Paths in a Shared Space Environment.	College London (PAMELA)		using its Pedestrian Accessibility Movement and Environment Laboratory (PAMELA), to investigate the effectiveness of various means of demarcating pedestrian paths in a 'shared space' environment. A sample of seven means of delineation were designed and tested, including the tactile paving surface used for guidance, a 20mm high trapezoidal strip used to separate cyclists and pedestrians on shared cycle paths, and various kerb designs. The design trials involved 30 blind and partially-sighted volunteers providing information on how easy the delineators were to detect, and a sample of 15 people who had difficulty with walking, (including some manual wheelchair users), who assessed how easy each type of delineator was to cross, and how acceptable they thought it would be in the pedestrian environment. It was concluded that, whilst none of the delineators emerged as meeting the needs of both groups of users, two were identified as warranting further research: the trapezoidal delineator strip and a 30mm kerb with a sloped profile.	
A Good Practice Guide to Disable People's Access to the Countryside	Fieldfare Trust	http://www.fieldfare.org.uk/countryside-for-all/countryside-for-all-good-practice-guide/	This document was published in 1997. Countryside access managers is provided in new Guidelines on how to achieve least restrictive access, how to deliver accessible countryside path networks and how to survey and audit paths in relation to the needs of disabled people, Guidance on the implications of the Disability Discrimination Act 1995 (now replaced by the Equality Act 2010) for countryside service providers is also provided.	9
Local Transport Note (LTN) 2/95 - The Design of Pedestrian Crossings	Department for Transport	https://www.gov.uk/government/uploads/system/uploads/attachment_dat	This document pre-dates both *Inclusive Mobility* and the *Guidance on the use of Tactile Paving Surfaces*. The LTN sets out the design and layout of different crossing types, including Pedestrian Refuge Islands, Zebra Crossings, Pelican Crossings,	9

Document title	Publisher	URL	Synopsis	Score
		a/file/330214/ltn-2-95_pedestrian-crossings.pdf	Puffin Crossings and Toucan Crossings. There is also detail with the LTN about the distance of crossings from junctions, school crossing patrols, visibility to crossings, crossing widths, guardrailing, crossing approach surfaces (including references to tactile paving), facilities for disabled pedestrians (including references to tactile paving and the (now superseded) Disability Unit Circular No DU 1/91), and lighting. This document does not provide guidance on crossings for equestrians, including Pegasus crossings. Details of which can be found in: • Design Manual for Roads and Bridges, Volume 6 Section 2 Part 3 Chapter 4 Road Users' Specific Requirements 2004 • The Department of Transport Traffic Advisory Leaflet 03/03 Equestrian Crossings describes construction and dimensions • Advice on Road Crossings for Horses – British Horse Society It is noted that no new Pelican crossings are permitted. The project team has also been made aware that LTN 2/95 is likely to be superseded by the Traffic Signs Manual Chapter 6 in due course.	
Reducing Mobility Handicaps – Towards a Barrier Free Environment	(C)IHT		This document, published in 1991, pre-dates the Equality Act by some 19 years. The document is directed towards local authorities, developers, transport operators and others involved in the provision of transport infrastructure and facilities. The document includes sections on: movement – design standards (including dimensions, footways & footpaths, dropped kerbs,	9

Document title	Publisher	URL	Synopsis	Score
			ramps, steps, handrails, street furniture, obstructions, toilets, lighting, and winter maintenance); and pedestrian areas and pedestrian advantage schemes. The definition of "Mobility Handicap" includes coping with children, shopping or luggage, long-term progressive problems of increasing age, temporary but not necessarily short-term difficulties associated with pregnancy or accident, and mobility handicaps resulting from physical, sensory or mental impairments.	

C.2.4   Documents not suited to literature review but which might form cross-references in updated guidance

Table 4 lists documents which do not have a core overlap or are not directly relevant in terms of content for the literature review. However they are listed here as an aide memoire as possible cross-references from updated guidance to other specialist documents:

Table 4 – Potential cross-reference documents for updated guidance, not included in literature review

Document title	Publisher	URL
Means of Escape for Disabled People	HM Government	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/422202/9446_Means_of_Escape_v2_.pdf

C.3   Shortlist of review documents

From the long-list of documents a shortlist of eight documents with the best scores (using the scoring mechanism) was created from which the client steering group chose six for a fuller review.

A. BS 8300-1:2018 - Design of an accessible and. inclusive built environment. External environment. Code of practice
B. ISO/TR 13570-2:2014 (Wheelchairs -- Part 2: Typical values and recommended limits of dimensions, mass and manoeuvring space as determined in ISO 7176-5)
C. Streets Toolkit
D. Appropriate public-realm design for the blind and partially sighted
E. Exploring the barriers to travel for people with mental impairments
F. Accessible railway stations: design standards

C.4   Scope of reviewed documents

The scope of the shortlisted documents have been reviewed in the same manner as *Inclusive Mobility* and *Guidance on the use of Tactile Paving* (see Table 2) and the results of the review are shown in the tables below.

A	BS 8300-1:2018 - Design of an accessible and inclusive built environment. External environment. Code of practice
Why	This British Standard explains how the external built environment, including streets, parks, landscaped areas, the approach to a building, and the spaces between and around buildings, can be designed, built and managed to achieve an inclusive environment. It complements and is intended to be read in conjunction with the recommendations given in BS 8300‑2. The aim of this British Standard is to give built environment, urban design and landscape professionals the information they need at the outset of a project to achieve an accessible and inclusive environment and to anticipate and overcome any restrictions and barriers that prevent any user making full and independent use of the external environment.
When	2018
What	The new BS 8300‑1 explains how to design, build and manage the external environment in a way that is inclusive. Designing to address and integrate the access requirements of all people, irrespective of their personal circumstances, as part of mainstream design, and thus achieve an inclusive environment, is always preferable to designating separate or specific features. The BS gives recommendations for the design of the external built environment, including the approaches to buildings, to accommodate users with the widest

A	BS 8300-1:2018 - Design of an accessible and inclusive built environment. External environment. Code of practice

range of characteristics and capabilities. It applies to:

a) key external features within the curtilage of or associated with a building or group of buildings, such as parking provision, setting‑down points, access routes to and around buildings, and the approaches of entrances to buildings.

b) Other aspects of the external environment such as street design, landscaping, way‑finding and information, horizontal and vertical movement, and public facilities.

The document includes the following sections. In numerous sections there are details in terms of layout, dimensions, and design to ensure facilities are inclusive.

- Inclusive design strategy
- Design and access statements
- Access strategy
- Site planning and positioning of buildings and other features
- Navigation, orientation and way-finding
- Setting-down and picking-up points
- Public transport infrastructure
- Cycle parking
- Designated on-street parking
- Designated off-street parking
- Access to, and location of, designated off-street parking spaces
- Design and layout of designated off-street parking spaces
- Multi-storey car parks
- Garaging and enclosed parking spaces
- Electric vehicle charging
- Mobility services and provision for electric mobility scooters
- Entrances to car parks, and parking controls
- Parking meters, payment systems and ticket dispensers
- Access routes
- Hazards on an access route
- Information and signage
- Pedestrian surfaces
- Gates, barriers and restrictions
- Steps and stairs
- Ramps
- Handrails
- Lifting appliances, escalators and moving walks
- Subways and bridges
- Meeting and information points
- Permanent visitor attractions
- Temporary external events
- Public art

A	BS 8300-1:2018 - Design of an accessible and inclusive built environment. External environment. Code of practice
	• Refreshment areas • Public telecommunications • Seating • Water features • Trees, planting and soft landscaping • Sanitary accommodation • Assistance dog toilets / spending areas • General principles of lighting • Avoiding glare and shadows • Colour rendering • Illumination for lip reading • Wayfinding • Nature trails • Beaches and piers • Parks and gardens • Fishing and angling • Historic landscapes and monuments • Play areas
Who	**Who is it for?** Built environment, urban design and landscape professionals. **Who will use it?** Professionals, in both the private and public sector, to ensure that environments are designed in a way that is inclusive and integrates the access requirements of all people. **Who is the end beneficiary?** All who use and move about external environments (public realm).
Where	**Where is the geographic scope?** UK. The document is a code of practice published by the British Standards Institution (BSI) in its role as the UK National Standards Body (NSB). **Where is the scope specifically?** External public environments (public realm).

B	ISO/TR 13570-2:2014 Wheelchairs - Part 2: Typical values and recommended limits of dimensions, mass and manoeuvring space as determined in ISO 7176-5
Why	To provide details to designers and manufacturers of the dimensions of various classes of wheelchair (which appear in a very wide variety of designs, types, models, and sizes) and the dimensions of space required to perform various actions with them. This is to ensure that buildings in which lifts are installed are designed with sufficient space for wheelchair users to manoeuvre comfortably and safely. Information is also provided on the mass of occupied wheelchairs, so that lifts can be designed and manufactured with the appropriate capacity.
When	2014 (although note that the typical values were current at the end of 2011)
What	The document divides wheelchair categories into five classes (handrim, A, B, C, scooter). It then describes typical values and recommended limits for the overall size of wheelchairs, to aid the design and manufacture of lifts. The document

B	ISO/TR 13570-2:2014 Wheelchairs - Part 2: Typical values and recommended limits of dimensions, mass and manoeuvring space as determined in ISO 7176-5
	also describes technical dimensions within the wheelchair, but these might be of less use to designers and engineers of the public realm.
Who	**Who is it for?** The document's audience is "architects and public authorities" who may design and provide spaces (within both the public realm and on privately owned property), and also manufacturers of lifts and wheelchairs, and test laboratories, who need to understand the limits of each category. **Who will use it?** Designers of the public realm, in particular those designing public transport infrastructure. Likely to be used by Local Authority Access Officers to understand the suitability of lifts used in the built environment. **Who is the end beneficiary?** The end beneficiaries are wheelchair users who also wish to use public transport facilities.
Where	**Where is the geographic scope?** This is an ISO (with a BS equivalent) document, and so is in theory applicable on a worldwide scale. It applies not just to the public realm, but also to private spaces. **Where is the scope specifically?** The document specifically applies to lifts provided for use by the public, and to spaces in the immediate vicinity of a lift's entrance / exit. The document is important because it caters for (and sets) the latest types of wheelchair in terms of dimensions and operating space, and there is an expectation that the relevant aspects of the public realm will be designed according to the standards contained within the document.

C	Streets Toolkit, Transport for London - specifically the Streetscape Guidance (2017 Revision 1) and Accessible Bus Stop Guidance components
Why	The purpose of the **Streetscape Guidance** is to set a high standard for the design of London's streets and spaces by applying best practice design principles. It defines aspirations and outlines the criteria for good design, material selection, installation and maintenance. The **Accessible Bus Stop Design Guidance** sets out requirements and guidance for the design of accessible bus stop environments.
When	2017
What	**Streetscape Guidance** provides the tools to apply best practice design principles and create consistently high quality links and places across London. While this guidance has been developed primarily for the Transport for London Road Network (TLRN), the principles are equally applicable to any street in London should a local authority choose to adopt them. The Streetscape Guidance has three primary functions: 1. To encourage those responsible for designing, building, operating and maintaining London's streets to use a robust design approach in balancing the movement of people and goods with high quality urban realm 2. To demonstrate the high level of ambition, innovation and creativity required on London's streets to deliver excellent levels of service.

C	Streets Toolkit, Transport for London - specifically the Streetscape Guidance (2017 Revision 1) and Accessible Bus Stop Guidance components
	3. To highlight the design considerations required for appropriate layout, material selection, application and maintenance, and to reinforce best practice design principles, ensuring that a high quality approach to street design is implemented across London Streetscape Guidance acknowledges emerging policies and describes the need to better understand the role of London's streets for 'place' and 'movement' functions, and to prioritise street improvements which enhance the efficiency and quality of the street environment as a whole. The **Accessible Bus Stop Design Guidance** aims to provide all those involved in the construction of bus stops with design guidance that ensures bus stops are accessible to all, particularly disabled passengers. This guidance will also assist highway authorities in the development of practical and affordable measures to improve accessibility at bus stops that are compatible with the particular characteristics of low-floor buses deployed on London's road network.
Who	Streetscape Guidance **Who is it for?** This guidance is a working tool for those responsible for designing, building, operating and maintaining London's streets. **Who will use it?** In addition to those designing, building, operating and maintaining London's streets, it provides more general guidance and advice for a wider audience, including design professionals, academics, highway authorities, road user groups, local communities and private developers. **Who is the end beneficiary?** All those who use London's streets. Accessible Bus Stop Design Guidance **Who is it for?** All those involved in the design and construction of bus stops in London. **Who will use it?** Those involved in the design and construction of bus stops including TfL staff, London Borough staff, contractors, designers, practitioners and consultants. **Who is the end beneficiary?** Disabled users of London's bus network along with those for whom access to buses may be difficult including older people, those carrying heavy luggage or those with small children.
Where	**Where is the geographic scope?** London, UK, but could be applied more widely **Where is the scope specifically?** Transport for London Road Network.

D	Appropriate public-realm design for the blind and partially sighted, Bolton Council
Why	To investigate how blind and partially-sighted people use tactile cues when finding their way in the pedestrian environment, in the light of the spread of 'shared space' schemes in urban centres.
When	November, 2015
What	A paper published in Civil Engineering - Proceedings of the Institution of Civil Engineers, reporting on research into how blind and partially-sighted people use

D	Appropriate public-realm design for the blind and partially sighted, Bolton Council
	tactile cues when finding their way in the pedestrian environment. The paper reports on an evaluation of relevant current design practice, and on a study of how blind and partially-sighted people interpret tactile surfaces, and other types of under-foot surface, for the purposes of navigation. The results of this research were fed into the design of the public realm within Bolton town centre. This paper highlights certain aspects of the way in which blind and partially-sighted people use tactile cues which might challenge current guidance on the use and value of tactile paving.
Who	**Who is it for?** Policy makers involved in compiling and publishing guidance on the provision of tactile paving in the public realm; researchers and trainers dealing with the way in which blind and partially-sighted people navigate the public realm; the designers of pedestrian facilities within the public realm, particularly measures intended to help blind and partially-sighted people with navigation. **Who will use it?** (see above) **Who is the end beneficiary?** Blind and partially-sighted people
Where	**Where is the geographic scope?** Scope is not geographically bounded. **Where is the scope specifically?** This paper is particularly relevant in the UK, where local authorities currently use the DfT's guidance on the provision of tactile paving.

E	Building Confidence - Improving travel for people with mental impairments. Undertaken by DPTAC and published by Department for Transport
Why	Research was undertaken by a member of the Disabled Persons Transport Advisory Committee (DPTAC) and investigated in depth the challenges that people with a mental impairment face when travelling. This was to find ways in which such challenges might be overcome, and so enhance the mobility of people who encounter such challenges.
When	November, 2017
What	This in-depth study carried out by University College London consisted of three main tasks: 1. A detailed definition of the mental, behavioural and emotional skills required when travelling by public transport and through the pedestrian environment; 2. An assessment of which of these key skills and abilities might be a challenge for people living with various mental, behavioural and emotional challenges, and 3. An appraisal of some of the measures that might be put into place to help people to overcome these challenges.
Who	**Who is it for?** The providers of public transport (i.e. operators); local authorities responsible for providing and maintaining facilities in the public realm; Policy makers involved in compiling and publishing guidance on making public transport and the public realm accessible; organisations involved with supporting people living with various mental, behavioural and emotional challenges to live a full, productive and independent life.

E	Building Confidence - Improving travel for people with mental impairments. Undertaken by DPTAC and published by Department for Transport
	Who will use it? (see above) **Who is the end beneficiary?** People living with various mental, behavioural and emotional challenges, and their family members.
Where	**Where is the geographic scope?** Scope is not geographically bounded. **Where is the scope specifically?** The design and provision of an accessible public transport system and public realm.

F	Accessible railway stations: design standards
Why	This Code fulfils the Secretary of State's responsibility under Section 71B of the Railways Act 1993 (as amended), to produce a Code of Practice "protecting the interests of users of railway passenger services or station services who are disabled". This revision incorporates modifications to the Commission Regulation (EU) No.1300/2014 of 18 November 2014 on the technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility (PRM TSI).
When	March 2015
What	The purpose of the Code is to ensure that any infrastructure work at stations makes railway travel easier for disabled passengers. It applies to services provided by operators in Great Britain in relation to trains and stations. The Code identifies European and national standards relevant for all passenger train and station operators in Great Britain. The Code contains mandatory European standards which must be applied when any "major work" is being undertaken; mandatory national standards which must be applied to all other installations, renewals or replacements; and best practice guidance which should be applied wherever possible. The Code contains sections on: • Pre-travel information • Substitute transport – pre-planned and emergency • Car parking • Set-down and pick-up points • Locating and approaching the station • Unobstructed progress • Doors • Lighting • Floors • Walls and transparent devices • Furniture and free-standing devices • Signs • Announcements • Help points • Ticket sales points

F	Accessible railway stations: design standards
	- Lifts - Steps and stairs - Escalators and moving walkways - Platforms - Seating, waiting rooms and shelters - Toilets - Platform lifts for boarding trains - Crossing the track - Connecting transport - Staff training
Who	**Who is it for?** Train and station operators, and anybody else who carries out work on Great Britain's railway network. All licences issued to passenger train and station operators by the Office for Rail Regulation (ORR) contain a condition that, in drawing up their Disabled People's Protection Policies (DPPPs), licensees will pay due regard to the Code of Practice. **Who will use it?** (see above) **Who is the end beneficiary?** Disabled users of trains and stations in Great Britain. Train and station operators, and anybody else who carries out work on Great Britain's railway network.
Where	Where is the geographic scope? Great Britain. **Where is the scope specifically?** Passenger train and station operators in Great Britain. It does not apply to Northern Ireland. Until such time as Scottish ministers choose to produce a separate Code of Practice, this Code will apply in Scotland.

C.5 Comparison of the scope of Inclusive Mobility and Guidance on the use of Tactile Paving Surfaces against other documents

Following the review the following areas of scope are present in other accessibility guidance but not within the *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces* documents. This is presented within a matrix in Table 5 below.

C.6 Gaps Identified by Matrix Approach

The matrix approach used in Table 5 allows gaps in documents to be identified. The following gaps are noted:

- Whilst Airports are described in the Introduction as an area to which *Inclusive Mobility* applies, airports are not specifically covered by any of the other shortlisted documents. However, there are long list documents which consider this area, for example: *Access to Air Travel for Disabled Persons and Persons with Reduced Mobility - Code of Practice*.

- Shared Space is not considered by either *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces*. However, this is considered within shortlisted documents, including the *Transport for London Streets Toolkit: Streetscape Guidance* (2017) and *Appropriate Public-Realm Design for the Blind and Partially Sighted* documents. Note that shared space was excluded from the scope of this project.

- The need to consider people living with various mental, behavioural and emotional challenges has become apparent as a new area which is not currently considered in *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces*. With an ageing population and increasing numbers of people with conditions such as dementia[4] this area is likely to grow in its importance in the coming years.

- The use of other documents by policy makers, researchers, trainers, and organisations involved with supporting people is noted. Future work should consider whether these users should have more of a focus in any revised *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces* documents.

- Cash machines / cash dispensers / ATMs are covered in *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces*, but these areas are not covered by other guidance documents shortlisted.

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[4] Dementia UK Report 2014
https://www.alzheimers.org.uk/info/20025/policy_and_influencing/251/dementia_uk

Table 5 – Matrix of document scope

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs - Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
Content	Design and layout of tactile paving surfaces	■	■	■		■		■		■
	Dimensions and space needed by user groups (including wheelchair dimensions)		■	■	■					■
	Kerbs and their height (upstand)	■	■	■		■	■	■		■
	Gradients, cambers and crossfalls	■	■	■		■	■	■		■
	Bus stops and shelters		■	■		■	■		■	
	Vertical clearances (from overhanging signs, barriers, entrances etc.)		■	■		■				■
	Talking (audible) or tactile information board / sign	■	■	■					■	■
	Shared space					■		■		
	Pedestrian environments	■	■	■		■		■	■	■
	Cycleway environments	■	■	■		■	■			
	Entrances	■	■	■						■
	Travel information		■						■	■

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs – Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	Car parking		■	■		■			■	■
	Set-down and pick-up points		■	■		■				■
	Locating and approaching public transport	■	■	■		■	■		■	■
	Unobstructed progress, barrier free environments		■	■		■			■	■
	Doors, handles and their dimensions		■	■						■
	Lighting, lighting levels, illumination	■	■	■		■	■		■	■
	Colours, finishes and contrast (such as of paving, floors and obstructions)	■	■	■		■	■	■	■	■
	Walls and transparent devices		■	■						■
	Street/building furniture and free-standing devices	■	■	■		■	■	■		■
	Signs – on street (including position, dimensions, fonts, colours, duplication etc.)	■	■	■		■	■		■	
	Signs – not on-street (including position, dimensions, fonts, colours, duplication etc.)	■	■	■					■	■
	Variable message signs (VMS), real-time		■	■		■			■	■

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs – Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	information and display screens									
	Announcements		■	■					■	■
	Help points, information points, information posts		■	■			■		■	■
	Ticket offices, kiosks and ticket sales points	■	■	■		■			■	■
	Lifts and their dimensions		■	■	■				■	■
	Steps and stairs	■	■	■						■
	Escalators and moving walkways		■	■					■	■
	Platforms	■	■	■				■	■	■
	Seating, waiting rooms and shelters	■	■	■		■	■		■	■
	Toilets and their dimensions		■	■					■	■
	Boarding of public transport by disabled people		■				■		■	■
	Accessibility training and materials (staff awareness of user groups)	■	■						■	■
	Consultation	■	■	■		■				
	Public telephones and telephone kiosks	■	■	■						■

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs – Part 2	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	Cash machines / cash dispensers / ATMs	■	■							
	Road crossings / pedestrian crossings (on street)	■	■			■	■	■	■	
	Crossing of public transport (such as level crossings)	■	■							■
	Public transport vehicles (including rail)		■				■		■	
Which bodies is it for?	Policy makers involved in compiling and publishing guidance on the provision of tactile paving in the public realm							■		
	Researchers and trainers dealing with the way in which blind and partially-sighted people navigate the public realm							■		
	Local Authorities and other bodies responsible for the physical design and maintenance of the public realm including built environment, pedestrian facilities,	■	■	■	■	■		■	■	

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs – Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017)	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	urban design and landscape professionals									
	Practitioners in the public and private sector who are responsible for providing public transport facilities, including waiting areas and transport buildings	■	■	■	■		■	■	■	■
	Organisations representing the interests of older and disabled people and others who might encounter difficulties when using public transport		■							
	Organisations involved with supporting people living with various mental, behavioural and emotional challenges to live a full, productive and independent life Urban / public realm design professionals – private sector								■	
	Public Transport Operators								■	■
Who will use	Policy makers involved in compiling and							■	■	

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs – Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
it?	publishing guidance on the provision of tactile paving									
	Policy makers involved in compiling and publishing guidance on the provision of public transport								■	
	Researchers into how blind and partially-sighted people navigate the public realm							■		
	Trainers of blind and partially-sighted people in navigating the public realm							■		
	Organisations involved with supporting people living with various mental, behavioural and emotional challenges to live a full, productive and independent life								■	
	Urban / public realm design professionals – private sector	■	■	■	■	■	■	■	■	
	Urban / public realm design professionals – public sector	■	■	■	■	■	■	■	■	

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs – Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017)	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	Streetworks contractors	■		■		■	■			
	Rail contractors									🔵
	Providers of public transport infrastructure, facilities and buildings (including rail)	■	■	■	■		■		■	■
	Local Authority Access Officers		■	■	■	■				
	Organisations representing the interests of older and disabled people and others who might encounter difficulties when using public transport		■						■	
	Those responsible for maintenance of the public realm	■		■			■		■	
Who is the end beneficiary?	Blind and partially sighted people	■	■	■			■	■		■
	Deaf people		■	■			■		■	■
	Wheelchair users	■	■	■	■	■	■			■
	Older people		■	■			■	■		■
	People living with various mental, behavioural and emotional challenges, and								🔵	🔵

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs - Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017)	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	their family members									
	Disabled people who might encounter difficulties using public transport		■	■			■			■
	Disabled people who might encounter difficulties using the pedestrian environment		■	■		■				■
	Those with small children		■	■			■			
	Those carrying heavy luggage		■	■			■			
	Those with temporary mobility problems		■	■						
	All who use and move about in external environments (public realm)			■		■				
	Public transport operators		■		■					■
Where is the geographic scope?	Universal							■	■	
	Worldwide				■					
	Any provider of public transport or pedestrian facilities		■							
	UK	■		■						

Area of scope	Detail	Guidance on the use of Tactile Paving Surfaces	Inclusive Mobility	A. BS 8300-1:2018	B. ISO/TR 13570-2:2014 (Wheelchairs - Part 2)	C. Streets Toolkit - Streetscape Guidance (2017)	C. Streets Toolkit Accessible Bus Stop Design Guidance (2017)	D. Appropriate public-realm design for the blind and partially	E. Building Confidence - Improving travel for people with	F. Accessible railway stations
	Great Britain									🟥
	London					🟦	🟦			
Where is the scope specifically?	The public realm	🟥	🟥	🟥	🟥	🟥	🟥	🟥	🟥	
	Pedestrian environments	🟥	🟥	🟥		🟥	🟥	🟥	🟥	🟥
	Cycle paths	🟥	🟥			🟥	🟥			
	Railway stations	🟥	🟥						🟥	🟥
	Airports		🟥							
	Public transport stations & stops		🟥	🟥		🟥	🟥		🟥	
	Car parking areas	🟥	🟥	🟥		🟥				🟥

C.7 Conclusion and Recommendations

The purpose of this literature review is to understand any missing or deficient core subject areas within the existing *Inclusive Mobility* and *Guidance on the use of Tactile Paving* documents.

The shortlisted documents reviewed herein are considerably more up-to-date than *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces*. The publication dates for the shortlisted documents range from 2014 to 2018; all of which have been published since the introduction of the Equality Act 2010. The examination also finds that *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces* are largely comprehensive in terms of scope, but somewhat out of date in terms of content. This means that there is potentially a need to add in a few new areas of scope, and to update what already exists in these documents.

C.7.1 Areas for which replacement information has not been located in short-listed documents

Cash machines / cash dispensers / ATMs are covered in *Inclusive Mobility* and *Guidance on the use of Tactile Paving Surfaces*. Suitable up-to-date replacement information has not been found within shortlisted documents. A decision will need to be made as to whether to retain this information in future versions of *Inclusive Mobility* and/or *Guidance on the use of Tactile Paving Surfaces*, or to remove the information.

Whilst Airports are described in the Introduction as an area to which *Inclusive Mobility* applies, airports are not specifically covered by any of the other shortlisted documents. However, there are long list documents which consider this area, for example: *Access to Air Travel for Disabled Persons and Persons with Reduced Mobility - Code of Practice*. A decision as to whether to continue to include airports within *Inclusive Mobility* will need to be taken and relevant source documents for updated information taken from the long-list if so.

C.7.2 Areas of focus in guidance documents which may now be less relevant

There are focusses within the various guidance documents which would now be less relevant and should be considered for removal, for example public telephone boxes and kiosks have largely been replaced by use of mobile phones and my now be irrelevant.

C.7.3 Areas considered in other documents not currently considered in Inclusive Mobility and Guidance on the use of Tactile Paving Surfaces

The need to consider people living with various mental, behavioural and emotional challenges has become apparent as a new area which is not currently considered in *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces*. With an ageing population and

increasing numbers of people with conditions such as dementia this area is likely to grow in its importance in the coming years.

Shared Space is not considered by either *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces*. However, this is considered within shortlisted documents including the *Transport for London Streets Toolkit: Streetscape Guidance* (2017) and *Appropriate Public-Realm Design for the Blind and Partially Sighted* documents.

The use of other documents by policy makers, researchers, trainers, and organisations involved with supporting people is noted. Future work should consider whether these users should have more of a focus in any revised *Inclusive Mobility* or *Guidance on the use of Tactile Paving Surfaces* documents.

C.7.4 Recommendations for other documents which should also be updated as part of future work

It is recommended that the re-drafting or new document creation that follows from the outputs of this project also includes re-drafting or replacing *TAL 5/95 Parking for Disabled People*. This TAL has considerable overlap with the content in Section 5 'Car Parking' of *Inclusive Mobility*, and is similarly out-of-date. TAL 5/95 includes references to non-compliant road markings for 'disabled parking' and to 'orange badge holders'.

C.8   Document scoring

Document title	1. Usefulness of document (score)	2. Timing of document (score)	3. Hierarchical status of document (score)	Overall score
Accessible rail transport	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
Accessible railway stations: design standards	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
Appropriate public-realm design for the blind and partially sighted	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
BS 8300-1:2018 - Design of an accessible and. inclusive built environment. External environment. Code of practice	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	Standards organisation (1)	3
Building Confidence - Improving travel for people with mental impairments.	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
Building Regulations (in particular Part M – Access to and use of buildings)	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
Exploring the barriers to travel for people with mental impairments	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
ISO/TR 13570-2:2014	Offers alternative content to answer the literature research	Published after 2013 (1)	Standards organisation (1)	3

Document title	1. Usefulness of document (score)	2. Timing of document (score)	3. Hierarchical status of document (score)	Overall score
	question (1)			
Streets Toolkit	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	UK government body (1)	3
Accessibility Action Plan Consultation	Offers some links to answering the research question (2)	Published after 2013 (1)	UK government body (1)	4
Accessible journey planning data	Offers some links to answering the research question (2)	Published after 2013 (1)	UK government body (1)	4
BS 5489-1:2013 - Code of practice for the design of road lighting. Lighting of roads and public amenity areas	Offers some links to answering the research question (2)	Published after 2013 (1)	Standards organisation (1)	4
Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts (recast).	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	International or foreign government or intergovernmental organisation (2)	4
London Cycle Design Standards (LCDS)	Offers some links to answering the research question (2)	Published after 2013 (1)	UK government body (1)	4
Manual for Streets 2 – Wider Application of the Principles (2010)	Offers alternative content to answer the literature research question (1)	Published between 2002 and 2012 (2)	UK government body (1)	4
Pedestrian Comfort Guidance for London – Guidance document	Offers alternative content to answer the literature research question (1)	Published between 2002 and 2012 (2)	UK government body (1)	4

Document title	1. Usefulness of document (score)	2. Timing of document (score)	3. Hierarchical status of document (score)	Overall score
The Traffic Signs Regulations and General Directions 2016	Offers some links to answering the research question (2)	Published after 2013 (1)	UK government body (1)	4
Access to Air Travel for Disabled Persons and Persons with Reduced Mobility - Code of Practice	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Creating Better Streets: Inclusive and Accessible Spaces - Reviewing shared space	Offers some links to answering the research question (2)	Published after 2013 (1)	Professional Institution or research body (2)	5
Design Manual for Roads and Bridges HD 42/05 – Non-motorised User Audits	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Design Manual for Roads and Bridges TA 91/05 – Provision for Non-Motorised Users	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Equality Act 2010	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Local Transport Note 1/11 Shared Space	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
LTN 1/12 – Shared Use Routes for Pedestrians and Cyclists	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
LTN 2/09 Pedestrian Guardrailing	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Making Rail	Offers some links to	Published	Professional	5

Document title	1. Usefulness of document (score)	2. Timing of document (score)	3. Hierarchical status of document (score)	Overall score
Accessible: Helping older and disabled passengers	answering the research question (2)	after 2013 (1)	Institution or research body (2)	
Manual for Streets (2007)	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Sustrans Design Manual – Handbook for Cycle-Friendly Design	Offers alternative content to answer the literature research question (1)	Published after 2013 (1)	Campaigning organisation (3)	5
TAL 05/05 Pedestrian Facilities at Signal-controlled Junctions	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	UK government body (1)	5
Disabled people: attitudes towards travel	Offers very limited relevant information (4)	Published after 2013 (1)	UK government body (1)	6
Guidance to local authorities on assessing eligibility of disabled people in England for concessionary bus travel	Offers very limited relevant information (4)	Published after 2013 (1)	UK government body (1)	6
Inclusion by Design	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	Professional Institution or research body (2)	6
TAL 5/95 Parking for Disabled People	Is superseded information (suggesting that it is no longer useful) (3)	Published between 2002 and 2012 (2)	UK government body (1)	6
The Design of Streets with Older People in Mind	Offers alternative content to answer the literature research question (1)	Published between 2002 and 2012 (2)	Campaigning organisation (3)	6
Using mobility scooters and powered	Offers very limited relevant information (4)	Published after 2013 (1)	UK government body (1)	6

Document title	1. Usefulness of document (score)	2. Timing of document (score)	3. Hierarchical status of document (score)	Overall score
wheelchairs on the road				
Various – Blue Badge scheme	Offers very limited relevant information (4)	Published after 2013 (1)	UK government body (1)	6
Wayfinding Project	Offers alternative content to answer the literature research question (1)	Published between 2002 and 2012 (2)	Campaigning organisation (3)	6
Wheelchair access in taxis and private hire vehicles	Offers very limited relevant information (4)	Published after 2013 (1)	UK government body (1)	6
Convention on the Rights of Persons with Disabilities 2012 ICT Accessibility Progress Report	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	Campaigning organisation (3)	7
Design Manual for Roads and Bridges TA 90/05 – The Geometric Design of Pedestrian, Cycle and Equestrian Routes	Offers some links to answering the research question (2)	Published before 2002 (4)	UK government body (1)	7
Guidance on Local Transport Plans (2009)	Offers very limited relevant information (4)	Published between 2002 and 2012 (2)	UK government body (1)	7
ISO 7176-5:2008	Offers very limited relevant information (4)	Published between 2002 and 2012 (2)	Standards organisation (1)	7
People with severe temporary impairments: advice to local authorities	Offers very limited relevant information (4)	Published between 2002 and 2012 (2)	UK government body (1)	7
Printed public transport information	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	Campaigning organisation (3)	7

Document title	1. Usefulness of document (score)	2. Timing of document (score)	3. Hierarchical status of document (score)	Overall score
Sign Design Guide	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	Campaigning organisation (3)	7
Understanding the Needs of Blind and Partially Sighted People: their experiences, perspectives, and expectations	Offers some links to answering the research question (2)	Published between 2002 and 2012 (2)	Campaigning organisation (3)	7
Civilised Streets	Offers very limited relevant information (4)	Published between 2002 and 2012 (2)	Professional Institution or research body (2)	8
Effective Kerb Heights for Blind and Partially Sighted People	Offers very limited relevant information (4)	Published between 2002 and 2012 (2)	Professional Institution or research body (2)	8
Testing Proposed Delineators to Demarcate Pedestrian Paths in a Shared Space Environment.	Offers very limited relevant information (4)	Published between 2002 and 2012 (2)	Professional Institution or research body (2)	8
A Good Practice Guide to Disable People's Access to the Countryside	Offers some links to answering the research question (2)	Published before 2002 (4)	Campaigning organisation (3)	9
Local Transport Note (LTN) 2/95 - The Design of Pedestrian Crossings	Offers very limited relevant information (4)	Published before 2002 (4)	UK government body (1)	9
Reducing Mobility Handicaps – Towards a Barrier Free Environment	Is superseded information (suggesting that it is no longer useful) (3)	Published before 2002 (4)	Professional Institution or research body (2)	9

Updating Guidance on the Accessible Public Realm

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