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Design Opportunity 4 of 8

Train station accessibility

***ncat**
national
centre for
accessible
transport





Design Opportunity 4 of 8

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This is one of eight design opportunities developed from ncat's extensive research with disabled passengers across the UK.

For those who wish to explore the full evidence base, detailed findings can be found in the accompanying research report.

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Barriers

Train stations are critical nodes in the public transport network, but for many disabled passengers, they remain some of the most complex and disorienting environments to navigate. Our engagement with disabled passengers through interviews, focus groups, and survey responses revealed consistent barriers: long distances between key facilities, poorly positioned signage, inconsistent platform layouts, inaccessible toilets and waiting areas, and unreliable information about lift or service outages.

People with mobility impairments described struggling to access signage, ticket barriers, and seating. People with vision impairments expressed dependence on staff, with wayfinding often impossible without assistance. Neurodivergent or sensory-sensitive passengers flagged overwhelming lighting, sound, and layout design as contributors to anxiety.

In many cases, the spatial organisation of stations reflects infrastructure rather than people. There is a significant opportunity to apply inclusive design principles across physical layout, wayfinding systems, signage, and service information to create train stations that are genuinely navigable, predictable, and welcoming to all.



Train station accessibility

How might we design train stations that are intuitive, navigable, and predictable for disabled passengers, so they can move confidently and independently through spaces and access the services they need without stress or delay?



Objectives: Navigation and wayfinding that works for all

“ Signage isn’t always clear, but familiarity helps when signage is inaccessible. ”

“ Train stations are hard to navigate: the signage for exits, toilets, platforms, and lifts could be clearer. ”



Objectives: Navigation and wayfinding that works for all

What if passengers could intuitively find their way through a station, no matter their familiarity, impairment, or mobility?

- ▶ **How might signage, floor markings, and tactile cues guide passengers to lifts, platforms, help points, and exits clearly and consistently?**
- ▶ **Could we develop standardised wayfinding systems across stations, including multisensory formats (for example, audio, tactile, colour-coded lines)?**
- ▶ **What does a station layout look like that works for a person with no sight, limited mobility, or cognitive overload?**



Objectives: Real-time facility status and service information

“

Once a lift was broken and I found out about it only on the spot, and an assistant carried my wheelchair on the stairs.

”

“

Need to know if the lift is out of order, but the information isn't updated timely. I got stuck and had to go all the way back.

”



Objectives: Real-time facility status and service information

What if passengers always knew what facilities were available and whether they were working before and during their journey?

- ▶ **How might we alert passengers in advance when lifts, accessible toilets, or routes are out of service?**
- ▶ **Could we provide live updates through both apps and physical signage in accessible formats?**
- ▶ **How might we gather and respond to user feedback about facilities and services in real time?**



Objectives: Accessible ticketing and barrier access

“

I tend to gravitate towards the person on the gates because the barriers just don't stay open long enough.

”

Objectives: Accessible ticketing and barrier access

What if verifying your ticket or passing through a barrier didn't require free hands, complex actions, or precise alignment?

- ▶ **How might we design ticket validation that works seamlessly for people using mobility aids, guide dogs, or with dexterity challenges?**
- ▶ **Could we use wearables, hands-free passes, or even facial recognition to reduce dwell times at gates?**
- ▶ **How might staff assistance and barrier design work together to support autonomy?**



Objectives: Seating, waiting and rest areas

“

Seats positioned around edge of room so wheelchair users have to be positioned in the centre...you feel in the way.

”

“

Train stations should have warm, enclosed waiting areas. Harrogate had only a strip shelter and no doors, in 5 degrees!

”



Objectives: Seating, waiting and rest areas

“

At Bristol Temple Meads, there is one seat with a disability icon on it: slightly raised for transfer but with an armrest in the way.

”



Objectives: Seating, waiting and rest areas

What if waiting areas were warm, quiet, and designed to meet the access needs of all?

- ▶ **How might we improve seating design and placement for people who use wheelchairs or need frequent rest?**
- ▶ **Could stations offer both calm spaces for sensory-sensitive users and functional areas with access to toilets, announcements, and boarding zones?**
- ▶ **What lighting, acoustic, and spatial features contribute to inclusive waiting environments?**



Objectives: Boarding zones and platform access

“

The biggest issue for me with stations: where am I getting on? The location on the platforms is inconsistent.

”

“

There should be a sign with a disabled person icon on the platform floor where I should wait, but I can't see it here.

”



Objectives: Boarding zones and platform access

“

Cannot tell where edge of platform is, tactile paving is worn away and not in a contrasting colour.

”

“

In Loughborough, I am able to locate the right coach going to the second bench on the station, so I am able to align with the right carriage for me.

”



Objectives: **Boarding zones and platform access**

What if every passenger knew where to wait and board and could get there safely and easily?

- ▶ **How might we mark accessible boarding zones more clearly and consistently?**
- ▶ **Could tactile or visual floor guides help align passengers with specific carriage types or entrances?**
- ▶ **What changes would reduce the anxiety of boarding for those with visual, physical, or cognitive impairments?**



Objectives: Support for independent orientation

“ Would be good to have signage for lifts on the floor so you can clearly see, as the view can be restricted by crowds. ”

“ When signage is unclear, I follow people with [suit] cases. ”

“ Would be good to know where the accessible bathrooms are...[often] not in common sense areas. ”



Objectives: Support for independent orientation

What if arriving at or leaving a train felt navigable even without asking for help?

- ▶ **How might we help people orient themselves when stepping off a train or into a concourse, particularly in an unfamiliar or crowded spaces?**
- ▶ **Could there be clearer spatial logic, better signage, and consistent landmarking of exits, lifts, and platform identifiers?**
- ▶ **What technologies or low-tech tools could aid real-time orientation?**



Objectives: Assistance, staff and feedback systems

“ Help points exist but how do you find a help point when you are blind? ”

“ Never used help points, think they are for emergencies/don't like to ask. ”



Objectives: Assistance, staff and feedback systems

What if finding support/help points when needed was accessible, clearly signposted, and available in multiple formats?

- ▶ **How might help points, assistance counters, or support staff become easier to locate and engage with?**
- ▶ **Could we make assistance options feel less institutional and more user-friendly, while still reliable?**
- ▶ **What multimodal feedback systems would let disabled passengers report barriers or request help with ease?**



Objectives: Facilities and amenities for diverse needs

“

To access accessible toilets, I use a radar key, but I can't always open the door, it is too heavy for me.

”

“

Can be a big faff getting the radar¹ key at the station if forget to bring mine.

”

“

Lifts are often in lonelier corridors, isolated position, can feel unsafe.

”



Objectives: Facilities and amenities for diverse needs

What if toilets, lifts, service counters, and other facilities reflected the realities of disabled people's lives, not just the minimum standard?

- ▶ How might we rethink accessible toilet design (for example, space, stoma-friendly layout, assistance dog space, Changing Places)?
- ▶ Could [RADAR](#)¹ key access be modernised to be digital, personalised, or hands-free?
- ▶ What role do proximity, visibility, and consistency of facility placement play in passenger confidence?

¹ A special key that provides access to over 10,000 locked, accessible public toilets across the UK.



Objectives: Interchange and multimodal navigation

“ I once had to walk between King’s Cross and St Pancras with two bags and crutches. Why is there no travelator or connection like airports? ”

“ Transfer from bus stop to train station is dangerous as there is no clarity between the pavement and the road. ”

“ There doesn’t seem to be one app to navigate across all stations and modes. ”



Objectives: **Interchange and multimodal navigation**

What if changing between modes of transport, like train to bus, felt seamless and supported?

- ▶ **How might we create clearer pathways, signage, or even automated and/or assisted shuttle routes between connected transport hubs?**
- ▶ **Could apps, tactile trails, or audible beacons guide people reliably across complex interchanges?**
- ▶ **How do we support wayfinding *between* stations, not just within them?**



Target users

This opportunity primarily focuses on the needs of:

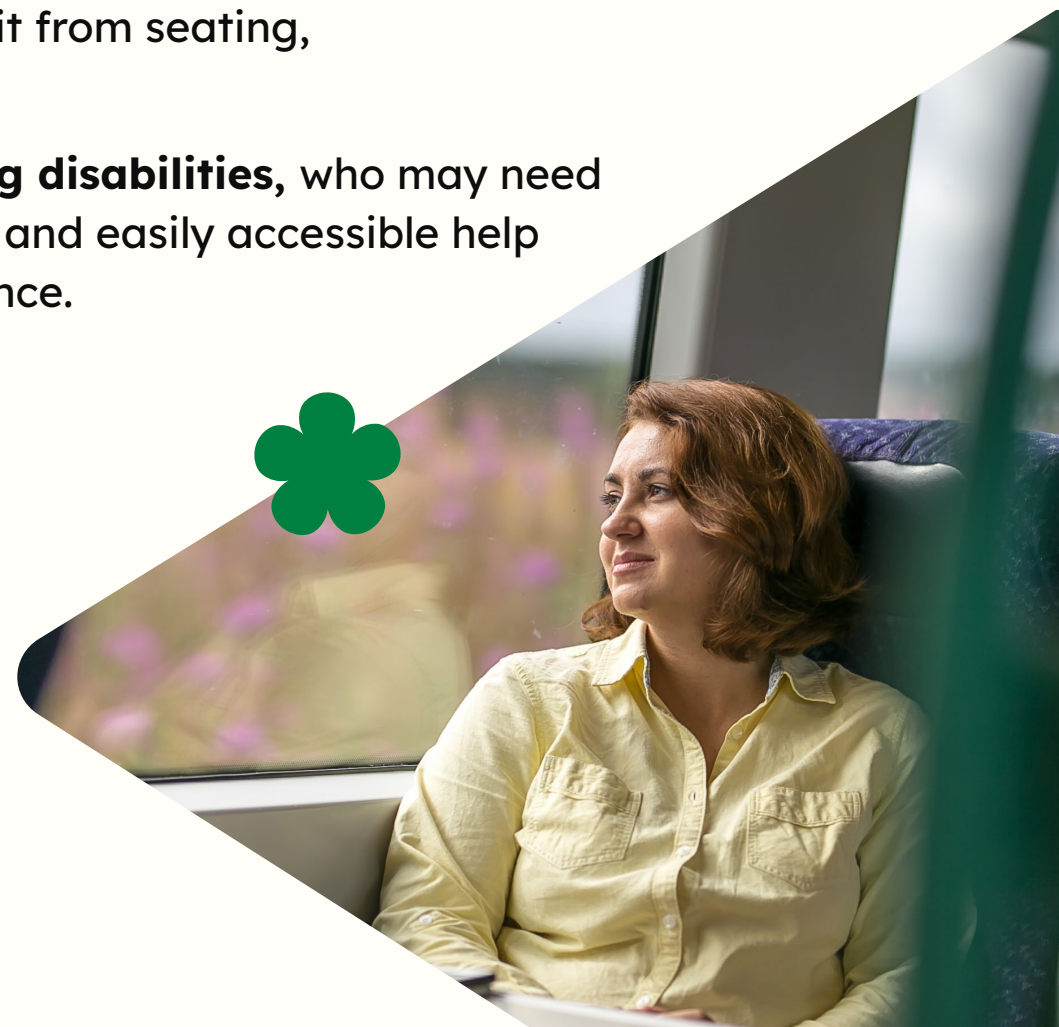
- ▶ **People with mobility impairments**, including wheelchair users, people with limited stamina, and those using mobility aids, who often face challenges with long walking distances, inaccessible lifts or toilets, poorly placed seating, and difficulty using ticket barriers.
- ▶ **Blind and visually impaired passengers**, who rely heavily on consistent wayfinding cues, audio information, tactile signage, and spatial predictability to navigate independently.
- ▶ **Neurodivergent individuals and those with sensory sensitivities**, who may find stations overwhelming due to noise, lighting, or complex layouts, and who benefit from calm environments and clear, structured navigation.



Target users

It also aims to consider the needs of:

- ▶ **Deaf and hard-of-hearing passengers**, who may miss critical audio announcements and rely on accessible visual displays and clear signage.
- ▶ **Elderly passengers**, who often experience reduced mobility, slower processing of information, or fatigue and benefit from seating, proximity of amenities, and simpler navigation.
- ▶ **People with cognitive impairments or learning disabilities**, who may need clear, repeatable instructions, intuitive signage, and easily accessible help points to travel independently and with confidence.



Design scope and constraints

In scope:

This opportunity focuses on improving the physical, sensory, and cognitive accessibility of train station environments, enabling more independent and confident travel for disabled passengers.

In-scope proposals should:

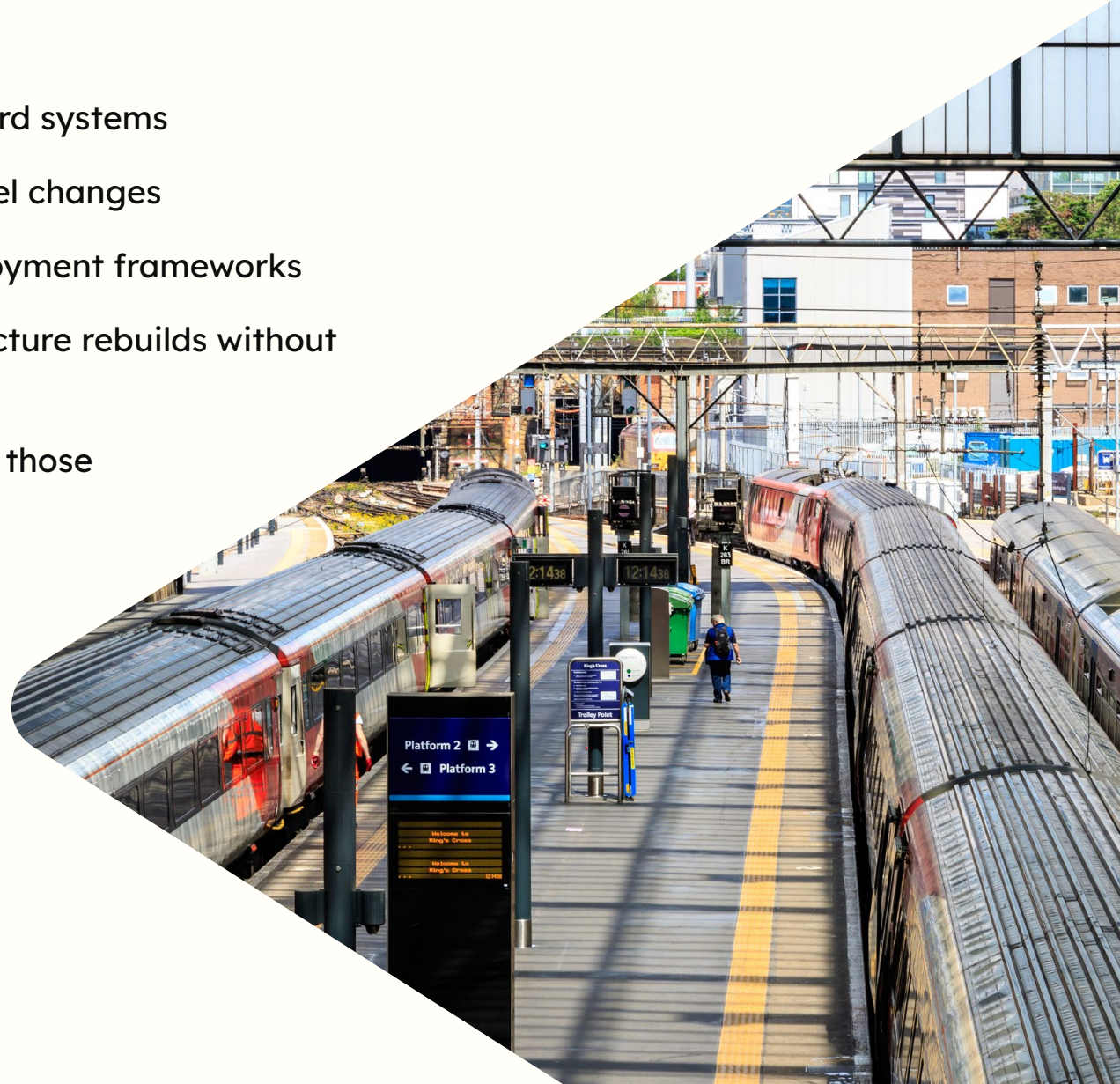
- ▶ Align with UK accessibility standards and inclusive design principles (e.g. Equality Act 2010, BS 8300, Inclusive Transport Strategy)
- ▶ Improve station navigation, wayfinding, signage, and layout for diverse access needs
- ▶ Enhance the usability of facilities such as lifts, toilets, ticket barriers, help points, and waiting areas
- ▶ Support multimodal transitions between transport services (for example, bus to train)
- ▶ Address both high-tech and low-tech interventions (for example, tactile guides, calm spaces, digital alerts)
- ▶ Be deliverable through current rail infrastructure, planning, or station upgrade programmes.

Design scope and constraints

Out of scope:

This opportunity does not cover:

- ▶ Major redesigns of train vehicles or on-board systems
- ▶ National rail timetable, fare, or service-level changes
- ▶ Operator-specific staffing models or employment frameworks
- ▶ Solutions that require large-scale infrastructure rebuilds without existing funding mechanisms
- ▶ Smartphone-only approaches that exclude those without digital access.



Stakeholders

- ▶ **Train operating companies and station managers**
- ▶ **Network Rail and other infrastructure owners**
- ▶ **Accessibility and inclusion leads within transport authorities**
- ▶ **Disabled passengers and advocacy organisations**
- ▶ **Architects, wayfinding consultants, and inclusive design specialists**
- ▶ **Technology and digital signage providers**
- ▶ **Station staff, customer service teams, and assistance providers**
- ▶ **Local authorities and multimodal transport coordinators.**

Next Steps

Visit the [Translating research into design opportunities project page](#) to find links to the full report, along with a shorter ‘highlights’ version that is also translated into easy-read and BSL.

The main project page also has direct links to the 8 individual design opportunities as below:

- 1 Bus stop accessibility**
- 2 Bus interior flexibility and accessibility**
- 3 Personalising ‘live’ travel information**
- 4 Train station accessibility**
- 5 Awareness of diverse travel needs**
- 6 Clarifying operator-passenger commitments**
- 7 Improving existing assistance services**
- 8 Identifying and sharing inclusive transport practices (vehicle, infrastructure, service, etc.)**

Contact Us

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