NetworkRail

Station Facilities & Amenities

Image 0.1
Station Facilities and Amenities,
London Kings Cross Station

Document Verification

Station Facilities & Amenities
Design Manual
NR/GN/CIV/200/03
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Authorisation

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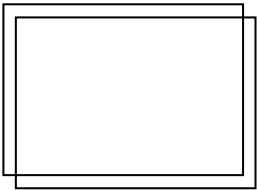
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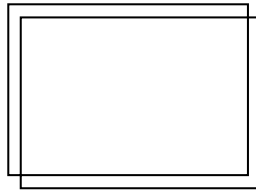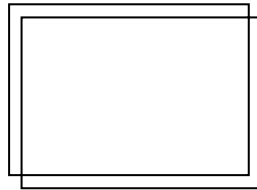- Capacity for Change

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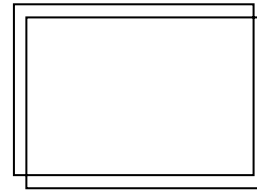
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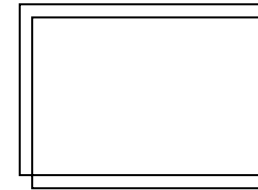
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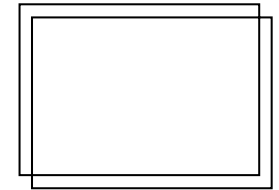
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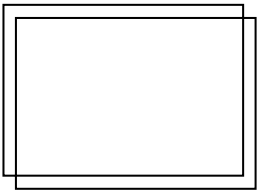
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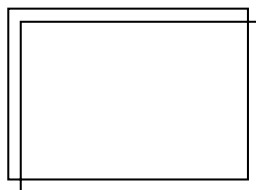
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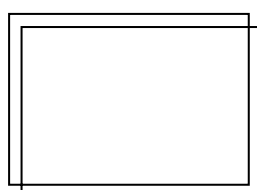
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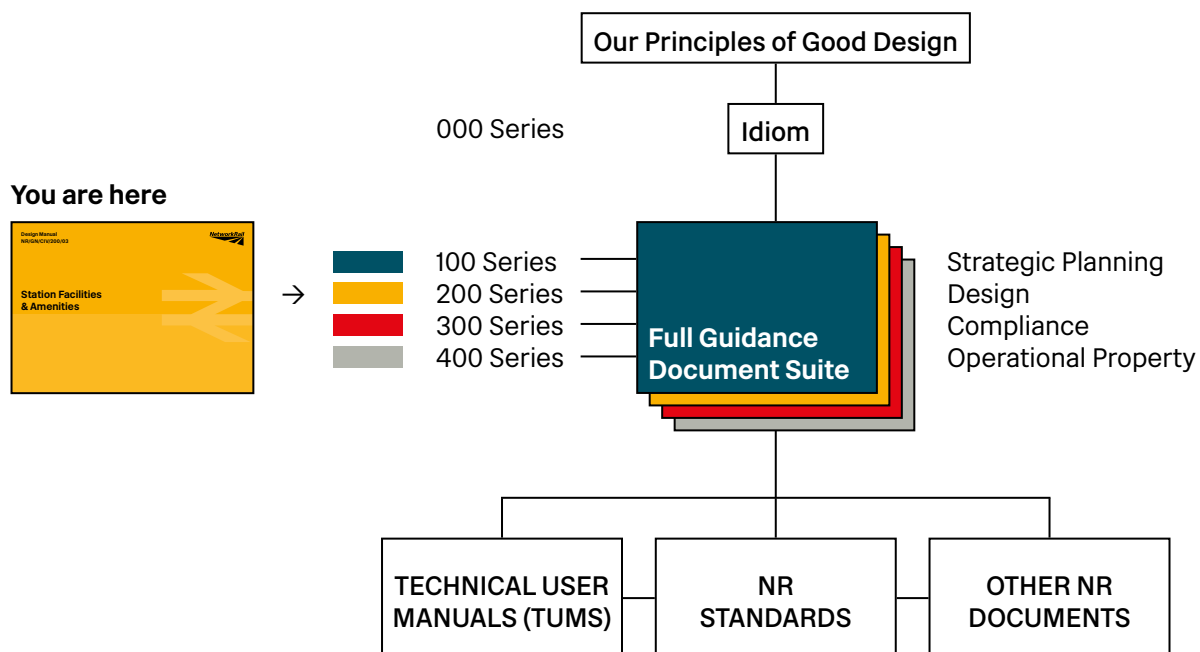
OTHER NR DOCUMENTS

References to other documents

- Code of Practice Guidance
- National Standard
- Network Rail document
- UK NTSN (replaces EU TSI)

Example:

Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)

PRM NTSN

Design of an accessible and inclusive built environment - Code of Practice (2018)

BS 8300-2:2018

NR Guidance Suite Reference

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A full list of relevant documents, and other guidance suite documents is contained in the appendix.

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Image 0.2
Gateline arrangement,
Glasgow Central Station

Station Amenities & Facilities
Introduction

1

Introduction
1.1 Purpose & Scope

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1.1 Purpose and Scope

This guidance provides advice on both facilities and amenities in rail stations. Distinction is made between facilities which are essential services and amenities which are additional and desirable services.

Network Rail are developing a newly structured and comprehensive design guidance suite; as part of this a design manual for station facilities and amenities has been prepared in anticipation of improvements and upgrades to stations in the near future. This document is intended to compliment Design Manuals for both 'Station Design' (NR/GN/CIV/100/02) and 'Inclusive Design' (NR/GN/CIV/300/04), by providing more detailed design advice on specific station facilities and amenities, and their provision at different station types.

Other relevant guidance documents within Network Rail's updated suite should be read in conjunction with this document, including those that cover specific topic areas in more detail and which are identified in the highlighted boxes in each section, where relevant. This document references other guidance, standards and applicable legislation throughout.

This design manual is primarily aimed at designers, engineers, project managers, contractors, and others involved in project design and delivery, as well as a useful point of reference for Station Managers, Train Operators and Sponsors.

Station facilities are necessary aspects along a station user's journey serving a particular purpose. Station amenities are desirable and useful to include within stations, providing pleasure and additional comfort to station users and staff.

In addition to facilities and amenities, this guide also covers more general space design considerations which may also influence the planning of station accommodation. The provision and requirements of specific facilities and amenities can also vary depending on the category, size, usage, and location of a station. Appendix A provides a list of station facilities and amenities with appropriate levels of provision dependent on station category, applicable to both managed and franchised stations.

Station facilities and amenities are primarily located on concourses at larger stations, but may also be found on platforms or at station entrances and exits. Station concourses should be flexible, inclusive environments which serve passengers, staff and local communities. Particular consideration should be given to understanding the access issues that passengers face, including persons of reduced mobility, and those with cognitive and sensory disabilities.

Images 1.1 and 1.2
Facilities and Amenities, London Bridge Station

Introduction
1.2 Background

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1.2 Background

The development of this manual has been partially informed by detailed analysis of existing station facilities and amenities at Network Rail's managed stations. Conducted in 2020, the NR report 'Core Standards - Facilities' compiles the experience of passengers using station facilities and amenitiesNational Rail Passenger Survey (NRPS), alongside feedback on areas from concern from station managers.

The Station Toolkit workstream has also been influential in the development of this manual, providing additional insight into many of the design considerations most relevant to station operations.

For specific guidance on inclusive design considerations, see NR/GN/CIV/300/04 (Inclusive Design Compliance), any updates to which are to take precedence over this guidance manual.

Inclusive design principles should be applied with care to identify the needs of people with disabilities; designers should consider persona narratives and journeys that categorise by need, rather than focusing on a specific disability, to encourage flexibility in design responses.

Image 1.3
Facilities and amenities,
Manchester Victoria

Station Facilities & Amenities
General Design Considerations

2

General design considerations
2.1 Security

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2.1.1 Security

Maintaining a safe and secure environment for station users is of paramount importance and in recent years, the threat of terrorism has increased significantly, For high risk category stations this can have major implications for the way in which stations and their public realm are designed and built and how they operate.

The National Railways Security Programme (NRSP) sets out mandatory measures required to protect people and railway stations from acts of terrorism. The regulation stipulates a proportionate response, specific to the type of station, to the threat of terrorism and project teams should make contact with the appropriate rail industry security specialist early in the design process to obtain project-specific guidance on any mandated security measures and good practice security guidance.

The primary guidance for building good security into stations is DfT 'Security In the Design Of Stations, and advice should be sought on the implications of the relevant design requirements for different types of station.

For stations in high risk categories (Category A to C), planning for security may have the following implications:

2.1.2 Hostile Vehicle Mitigation

Hostile Vehicle Mitigation (HVM) is designed with the intention or protecting people and the station from various types of hostile vehicle attack, for example Vehicle As a Weapon. HVM is mandated at high risk stations and design may encompass the public realm around the station, and station perimeter to prevent vehicle incursion.

HVM commonly relies on security bollards, landscape elements and impact-resistant street furniture to mitigate vehicle attack. While a less 'defensive' appearance is often preferable in townscape terms and favours the use of integrated landscape elements rather than bollards or barriers, these are likely to require impact testing and certification to demonstrate they meet security standards.

Establishing a security perimeter that provides as much "Stand Off" as possible away from the station envelope can reduce measures that might otherwise be needed to make the station building resistant to explosive blast effects. However, the operational impact of an outer security perimeter in terms of access for deliveries, maintenance vehicles and emergency services should also be considered, alongside any associated operational processes, so that security is maintained during day-to-day access arrangements.

Image 2.1
Taxi Rank, London Paddington, with hostile vehicle protectton bollards protecting the station perimeter

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2.1 Security

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2.1.3 Blast resistant building envelopes

It is possible to design the building envelope to resist hostile vehicle attack and explosive blast, and in some instances that may be unavoidable. For example, where "stand off" space in the public realm is limited or where vehicles cannot be kept away from the building perimeter. Where "stand off cannot be exploited to reduce the risks, there is significant design and cost implication on the capacity of structures, including the framing of fenestration and doors, which may influence the specification and construction detailing of external materials. This can have a major influence on building appearance, and choice of materials, for example, requiring more substantial window and door frames, increased laminated glass thickness and reduced panel sizes all designed to reduce the secondary effects of a blast. Security should therefore, be considered from the outset of a project's development to allow the design to embrace any regulatory security requirements at the earliest opportunity, rather than risk being compromised by them later in the design process.

2.1.4 Blast Mitigation

The collateral damage caused by flying debris from the blast of an Improvised Explosive Device (IED) also requires consideration in high risk stations. This can influence the type of internal lining materials and laminated glass used and the methods of fixing all signage, equipment, fixtures and fittings. To establish a proportionate response to this risk, project teams may be mandated under the National Railways Security Programme, to carry out station-specific blast analysis. The cost and design implications of blast assessment and analysis can be significant and advice from a qualified security specialist should be sought early in the design process so that the appropriate measures are incorporated within the design approach and reflected in project costs.

2.1.5 Concealment of weapons and drugs

Simple design measures can significantly reduce the risk of IED's, weapons and drugs paraphernalia being hidden within stations, including:

· Station seating with clear, open space underneath so that bags and weapons can be seen more easily by station staff.

· The avoidance of horizontal ledges at high level, particularly in less public areas such as WC's and waiting rooms.

· The avoidance of lift-out ceiling panels and light fittings in less public areas such as WC's and waiting rooms.

- Avoiding horizontal tops on fittings by incorporating slopping or rounded tops.

· Litter bins should be hoop and clear sack type and approved to meet the design and fixing requirements of the National Railways Security Programme.

To comply with the National Railways Security Programme, projects should make contact with the appropriate rail industry security specialist early in the design process For high risk stations, a Register of Security Engineers and Specialists (RSES) qualified consultantcy should be engaged as they can bena valuable design team member able to advise on various security design issues as projects progress. This will avoid any security retrofit costs and regulatory non-compliance issues.

Image 2.2
Air gaps beneath WC doors and flush ceilings at London Victoria WC's reduce the risk of drug and weapon concealment.

General design considerations
2.2 Events

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2.2 Events

Stations are used for a wide variety of events throughout the year. These range from larger scale exhibitions and music performances to support charities, to smaller fund-raising events and festive displays.

The type and size of event will change significantly from one station to the next and advice should be sought from station management staff during the early stages of design to establish what sort of events are likely to take place within or immediately outside the station. Planning-in suitable space that does not conflict with primary desire lines or places where passengers normally accumulate can offer a valuable local amenity, as well as bringing extra life to the station environment.

Stations in close proximity to major sporting and cultural venues may also have specific requirements and the station may need to adopt non-standard methods of people-flow management and event-specific security arrangements at specific times. In these instances, event-day operations are likely to form a primary element in establishing the functional brief for the station.

Image 2.3
Fundraising event, London Waterloo

Image 2.4
Festive display at Kings Cross

Image 2.5
Landscape design exhibition involving local schools, London Bridge

General design considerations
2.3 Capacity for change

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2.3 Capacity for change

Stations need to adapt to changing user patterns, numbers and demographics over time. Thought should be given to the potential impact of growth or change and where practical, the design should demonstrate how it could react to these changing use patterns.

The COVID pandemic has also highlighted the benefits of providing adequate space for people to move freely and adopt segregated circulation, avoiding physical contact. Developing design proposals that have sufficient flexibility to accommodate growth and change has long-term benefit. This requires balance to avoid designing-in excessive redundancy, but a strategic view of the future can avoid design solutions which are inflexible and become overly costly or complex to modify in future.

Image 2.6
Concourse capacity for future growth, Glasgow Queen Street

Image 2.7
Stairs and lifts,
Reading Station.

3

Station Facilities & Amenities
Passenger Navigation

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3.1 Vertical Circulation

The requirements for lifts, stairs, ramps and escalators will vary significantly between station types and the vertical relationship between entrances, concourse areas, platforms and the public realm. The location of these elements is likely to have a primary impact on the spatial planning of each station and the way in which station users circulate and navigate the station environment. Increased accessibility benefits all station users and vertical circulation can be a significant barrier to access and an inclusive design approach.

The inclusion of vertical circulation elements in this document is intended to provide an overview of their general design considerations. Detailed design information including calculations regarding space provision will be covered more fully in the guidance document Vertical Circulation NR/GN/CIV/200/05 which is due for publication shortly.

Image 3.1
London Bridge Station, lift pictogram

NR Guidance Suite Reference
Station Design Guidance NR/GN/CIV/100/02

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3.2 Lifts

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3.2 Lifts

Lifts are the primary means of enabling step-free access for all persons of reduced mobility, not just wheelchair users, and should be provided wherever ramps are not appropriate. Closure of single lifts serving platforms for maintenance has a high impact for those unable to use stairs. Provision of twin lifts should be considered where space allows.

As well as providing vertical access, lifts can also provide strong wayfinding elements within the station, particularly when combined with large pictograms. Where well-sited, their location and appearance can contribute significantly to station navigation for all station users.

Lifts should ideally be grouped with vertical circulation such as stairs and escalators, adjacent to main passenger routes so that they are highly visible and convenient to use. Where multiple lifts are provided, it is beneficial to group them together to reduce waiting times.

Through lifts are desirable where the geography of the station allows as they benefit wheelchair users. It is recommended that lifts have internal dimensions
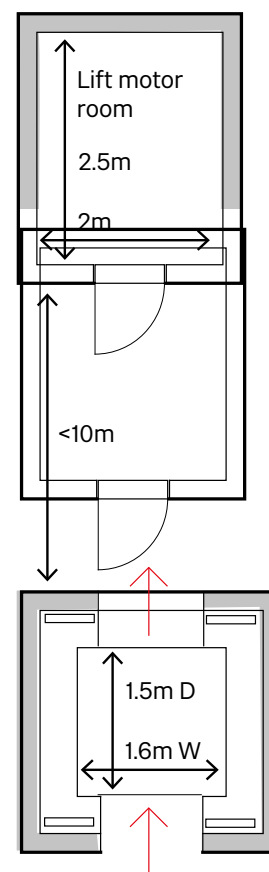

Image 3.2
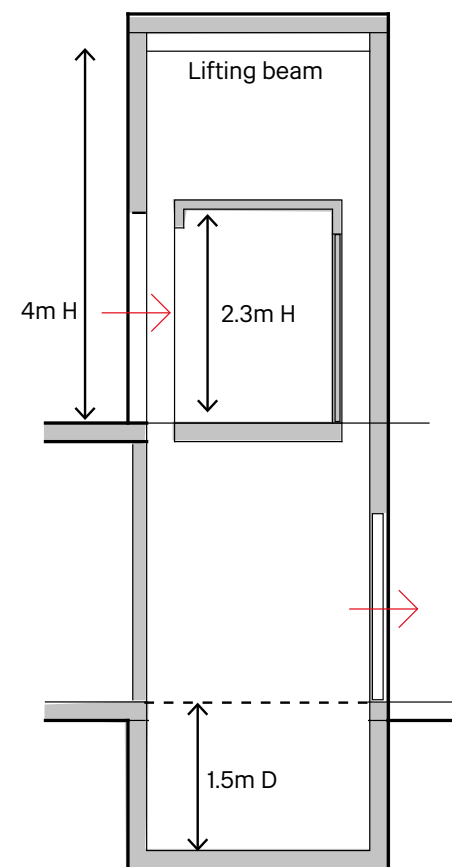Plan diagram of typical lift and lift motor room sizes

Image 3.3
Section diagram of typical lift over-run and pit clearance

Passenger Navigation
3.2 Lifts

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of 1600mm (width), 1500mm (depth), and 2300mm (height) to allow for a wheelchair turning circle. Larger lifts are preferred where the station layout allows as the size and perceived enclosure of lifts is known to have a significant impact on customer experience. The size and location of lift machine rooms should also to be taken account of, noting that they are normally located within 10m from the lift shaft. Typically, lift motor rooms for single lifts have an internal size of 2000 x 2500mm with a ceiling height of 2300mm. It is common to locate machine rooms below stair flights where headrooms allow. It is advisable to consider the power requirements of lift installation early in the design process. Lifts require significant electrical capacity which may require upgrade of existing power networks; the space and vehicular access requirements associated with new substations, as well their cost is often a major design consideration.

The provision of segregated emergency escape lifts is recommended at larger stations or stations with complex and/or significant level changes. However, escape lifts require independent power supply and the cost and spatial impact of this can be significant. The station operator's method of evacuation may also be a consideration in assessing where evacuation lifts are appropriate.

Platform lifts should be avoided and used only where no other means of step-free access is possible to navigate small changes in level. They are slow, undignified for users and are costly to maintain. Ramps are strongly preferred.

Standards Reference
Persons with Reduced Mobility - National Technical Specification Notice (2021)
PRM NTSN 4.2.1.2.2
Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 10.5
DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
DfT Code of Practice O1-3

Image 3.4
Direct relationship between stairs and lifts, Hackney Wick Station

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3.3 Ramps

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3.3 Ramps and gradients

Ramps should be used for small changes in level or when the installation of lifts is not appropriate, up to a maximum level change of 2m. Large level changes require ramps to have multiple intermediate landings and are highly space intensive when compared to lifts.

A ramp should have the lowest practical gradient; where a gradient is steeper than 1:20 it should follow conform to the recommended ramp lengths, where the maximum gradient = going length (m) + 10 (e.g. a 1:17 gradient = 7m long ramp), up to a maximum gradient of 1:12 for a 2m long ramp. Ramps of gradient steeper than 1:20 also require handrails to both sides, with a minimum clear width of 1.5m between handrails to be maintained throughout.

For ramps with a gradient of less than 1:20, landings should be provided at 10m intervals (longer intervals are permitted) for station users to rest. Floor surfaces with a gradient of less than 1:40 are considered 'level' for access purposes in stations.

No individual flight of a ramp should have a going greater than 10m, or rise greater than 0.5m. Landings at the head and foot of ramps should be at least the width of the ramp and a minimum of 1.5m long, clear of any obstruction.

Operators should consult with local disabled people when ramps in excess of 50m in length (including landings) or a 2m level change are proposed. Lifts should be provided, in accordance with BS8300 for

External lifts require significantly more maintenance than ramps and are vulnerable to vandalism, and where a lift replaces a ramp, alternative step-free access should still be provided in the event that the lift is out of order.

See also Appendix B of the PRM NTSN for an exception to the provision of step-free access at stations during upgrade/renewal.

For further guidance on ramp design, see Section P1 of the DfT Design Standards for Accessible Railway Stations, and NR/GN/CIV/200/05 (Vertical Circulation) which takes precedence over this guidance manual.

< 1:40 considered flat

< 1:20 handrail not required
(<2m rise / 50m length)

> 1:20 handrails required on both sides of ramp

1:12 max, handrails required on both sides of ramp
(< 2m length ramp)

NR Guidance Suite Reference

Vertical Circulation
NR/GN/CIV/200/05

Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)
PRM NTSN 4.2.1.2.2

Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 10.2

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
DfT Code of Practice

Passenger Navigation
3.4 Stairs

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3.4 Stairs

Fixed stairs are the most common and cost efficient means of vertical circulation, and should be provided alongside step-free access arrangements to provide station users with options.

Fixed stairs should use best practice principles, with designs of sufficient width to deal with current and predicted pedestrian flows in stations during various operating scenarios including, but not limited to, normal, perturbed, and emergency escape situations. These scenarios should take into account the needs of persons of reduced mobility, and the potential closure of lifts and or/escalators.

Stairs should have a minimum of 3 steps, with ramps to be installed in instances with fewer steps. No flight in a stepped access route should contain more than 20 risers. Repeating stair flights in a single direction should have an equal number of risers per flight. Stairs should have a maximum overall rise of 5m.

Escalators are desirable where the rise exceeds 5m, however, their provision should be considered on an individual project basis due to their high capital and maintenance costs compared to fixed stairs. Projected footfall may not be sufficient to justify the cost of escalators at some stations, whilst at others an adjacent stair and escalator may be provided, with the stair serving the down direction.

As escalators cannot be used by some user groups, they should not be used as a substitute for all stairs.

Handrails should be provided at both 900-1000mm and 600mm above the pitch line of all fixed stairs, with a minimum 300mm horizontal extension beyond the top and bottom riser. A minimum width of 1600mm should be provided between handrails, and the maximum width between handrails should not exceed 4000mm (an additional central handrail should be provided to stairs wider than 4000mm).

Illuminated handrails are more welcoming to station users and provide additional luminance to stair surfaces. It is important to consider the provision of illuminated handrails at an early design stage so that cabling can be coordinated through balustrades or adjacent wall surfaces.

Permanent anti-slip/tactile nosings should be provided to all stair treads and contrast visually with the stair.

For further guidance on stair design, see Sections Q1-Q4 of the DfT Design Standards for Accessible Railway Stations, and NR/GN/CIV/200/05 (Vertical Circulation) which takes precedence over this guidance manual.

Image 3.5
Platform stairs at Hackney Wick Station.

NR Guidance Suite Reference

Vertical Circulation
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Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)
PRM NTSN 4.2.1.2.2

Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 10.1

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
DfT Code of Practice

Passenger Navigation
3.5 Escalators

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3.5 Escalators

Escalators are desirable where the rise exceeds 5m and are highly effective in moving large numbers of people between levels, however, their provision should be considered on an individual project basis due to their high capital and maintenance costs compared to fixed stairs. Projected footfalls may not be sufficient to justify the cost of escalators, which tend to be confined to the busiest of stations. In some instances, providing escalators in the 'up' direction and stairs in 'down' direction is more appropriate.

Where passenger flows justify the inclusion of escalators in either direction, a bank of three or more provides resilience in case of an escalator breaking down or requiring maintenance, and allows for the direction of escalators to be changed to suit peak passenger flows that may run in opposite direction. One or more escalators within a bank may be substituted for fixed stairs to reduce costs during the early phases of a station development/upgrade, provided that space for an escalator is future-proofed in the design.

Consideration should be given to the spatial and construction requirements of escalator machinery and control rooms (where applicable) at both the top and bottom of escalators. Escalator design should also consider any space requirements for maintenance, and run-off spaces which should be of minimum 5m distance.

Escalators are a useful additions to stairs and lifts, but they cannot be used by wheelchair users, assistance dog users, and people who lack the confidence to use them. Escalators should therefore not be used as a substitute for stairs.

Passengers using escalators to move large items of luggage are a major safety risk and where escalators are used a lift should be provided and be clearly visible and easy to access. Signage should clearly indicate the direction of escalators, as well as identifying alternative access such as lifts or stairs.

It is useful for escalators to have integrated speakers, capable of delivering safety messages, and integrated lighting. Good lines of sight for station staff discourages misuse anti-social behaviour.

Escalators should be designed in accordance with BS EN 115-1:2008+A1:2010.

For further guidance on escalator design, see Section R1 of the DfT Design Standards for Accessible Railway Stations, and NR/GN/CIV/200/05 (Vertical Circulation) which takes precedence over this guidance manual.

Image 3.6
Escalators at London Bridge

NR Guidance Suite Reference

Vertical Circulation
NR/GN/CIV/200/05

Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)
PRM NTSN 4.2.1.2.2

Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 10.6

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
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Image 3.7
Ticket office in a historic frontage, Manchester Victoria

Station Facilities & Amenities
Active Travel

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Active Travel
4.1 Intermodal Interfaces

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4.1 Intermodal Interchange

Passenger experience is influenced by arrival and departure from stations as well as the environment within the station itself. With transport modes becoming increasingly integrated through shared payment systems and customer information, the physical infrastructure that enables active travel should also be integrated seamlessly, providing greater choice, flexibility, and reduced costs for passengers.

Station designers should consider local transport strategies, so that intermodal interfaces are coordinated with local stakeholder aspirations and do not preclude future growth. Station upgrades and renewals should also consider wider proposals for intermodal interfaces that may alter passenger behaviours or station operations. This may include local changes such as new bus services or a tram stop, or regional changes such as main line electrification or new high speed rail links.

Intermodal interfaces typically occur at the station forecourt and within the public realm (although some interchange may occur within station concourses). In all instances a hierarchy of interchange should prioritise pedestrian access, cycling, and public transport options in the first instance.

- Lighting, rain protection and singage for primary pedestrian routes can improve passenger experience and navigation.
- Public transport connections (other rail, bus, coach, tram, light rail, underground etc.) are best located close to the entrance of the station.
- Taxi ranks and passenger pick-up and drop-off points are ideally located close to station entrances. Their arrangement, including space for queuing and waiting vehicles, should avoid conflict with pedestrian routes and be coordinated with adjacent transport modes.
- Blue badge car parking should be located no more than 50m from a station entrance, and a step-free and covered access route provided.
- Regular car parking (both short and long stay) can be located further away from the station.

Interchange between all modes should be efficient and obvious to passengers. Routes should be spatially generous, uncluttered, and use a clear, consistent design language and materials. Journey times should be minimised by reducing horizontal and vertical travel distances, however, journey experience should not be negatively affected by a lack of spatial generosity or conflicting flows that can arise from designing for minimum journey times. Journey times should also consider a station user's start and end point, noting that these are best calculated to the centre of the train, rather than to a station entrance or gateline.

Intermodal interfaces should be safe and secure, avoiding road crossings or other vehicle routes wherever possible. CCTV and natural surveillance give people confidence to use them at any time.

The accessibility of a station from the drop-off point of other modes is a significant factor for PRMs to be use stations independently. Particular consideration should be given to accessible interchanges; designs should follow best practice guidelines.

For further guidance on active travel, see related design manuals which cover these areas in greater detail, including NR/GN/CIV/200/11 (Parking & Mobility at Stations), NR/GN/CIV/200/12 (Third Party Funded Railway Car Parks), NR/GN/CIV/200/10 (Urban Realm Design), which take precedence over this guidance manual.

NR Guidance Suite Reference
Parking & Mobility at Stations NR/GN/CIV/200/11
Third Party Funded Railway Car Parks NR/GN/CIV/200/12
Public Realm Design NR/GN/CIV/200/10

Active Travel

4.2 Cycle Parking

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4.2. Cycle Parking

The provision of generous and secure cycle parking is making a major contribution towards a low carbon transport network by reducing reliance on vehicular transport to arrive at or depart from a station. Cycle parking also presents an opportunity for integration with the public realm, encouraging active travel where facilities are clearly visible and enjoyable to use.

Network Rail actively encourages the inclusion of high quality cycle parking at all of its stations. There has also been a steady increase in the use of fully-secure cycle parking facilities and cycle hubs in recent years, with access systems that require cyclists to register for access. It is preferable for large cycle hubs to be staffed, or located close to the station entrance in an area with good natural surveillance. There are several instances where secure cycle parking has successfully been combined with bike maintenance workshops. Where fully secure, access controlled cycle parking is provided, some provision for more standard cycle parking should also be made, to cater for short-term or occasional station users arriving by bike. CCTV should be clearly visible and signposted around cycle parking facilities to deter theft and vandalism.

The type and provision of cycle hire facilities to be provided at station should be determined on an individual station basis in response to local requirements.

Cycle parking spaces may be provided using two-tier cycle racks, Sheffield stands, or CaMden M stands. Two-tier racks are highly space-efficient but require sufficient ceiling height. This varies between manufacturers but is typically 2,600mm. CaMden M stands are considered preferable to Sheffield stands as they provide better and more flexible frame locking locations. In all instances, cycle racks should be robust and durable to resist theft.

To encourage inclusive cycling, where a number of cycle stands are provided, some should be positioned to allow the parking of adapted cycles which can be considerably larger than other cycles and may impact on clear widths of pedestrian routes. Charging points for electric and adapted bikes should also be provided.

The most successful facilities are supplemented with ancillary functions such as cycle repair and maintenance facilities, toilets, changing rooms and showers, cafés, exercise and office space. Where space allows, such additions should be included in cycle hub designs, particularly on existing upper floors in stations where space may be under utilised.

Image 4.1
Kingston Cycle Hub

Image 4.2
Sheffield Station, Cycle Hub

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4.2 Cycle Parking

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Larger terminus stations serving leisure travellers are more likely to see fixed-frame cycles carried on trains and should therefore provide step-free routes of sufficient width from cycling facilities to the station entrance and platforms.

Cycle lockers for standard bikes are discouraged as the present a security risk as well as creating an unnecessary maintenance problem. Most have now been removed from the rail network.

Lockers for folding hire bikes are highly space-efficient and have been successfully integrated in a number of stations, however they can represent a security risk as a place to conceal weapons, drugs and explosive devices and advice should be sought from the relevant rail industry security contact and / or the BTP to establish if the risk profile of the station supports their inclusion.

More generally, cycle hire schemes are increasingly common as they allow for flexibility for station users without the responsibility of owning a bike. These schemes include those provided by local transport authorities and independent operators. Cycle hire schemes are particularly useful in providing an environmentally sustainable solution to the 'last mile' and for increasing accessibility to a greater range of station users. Cycle hire facilities should be located alongside cycle parking and/or maintenance facilities in an area with good natural surveillance.

Image 4.3
Adapted cycles require more room to store and manoeuvre

Image 4.4
Cycle park connects directly to station, Utrecht Central, NL

Standards Reference
SIDOS (2021)
National Railway Security Programme
DfT: Security In the Design Of Stations

NR Guidance Suite Reference
Parking & Mobility at Stations
NR/GN/CIV/200/11
Public Realm Design
NR/GN/CIV/200/10

Image 4.5
Guildford Station, Brompton Cycle Hire Facility

Active Travel
4.3 Set Down & Pick Up Points

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4.3 Set-Down/Pick-Up Points

Set-down/pick-up points for taxis and private vehicles are best located close to the station and generally within 50m of the primary station entrance. However this is highly dependent on the configuration of the station and its highway network and proximity should not come at the expense of pedestrian or cycle routes. Where possible, level and covered access routes to the station entrance should be provided. Controlled crossings should be provided whenever movement to or from set-down/pick-up points necessitates crossing the carriageway.

Set-down/pick-up points, including any space for queuing vehicles, should be designed with appropriate capacity for anticipated demand and should facilitate use by all vehicle types. Inadequate set-down/pick-up capacity is an issue at many stations where congestion leads to unsafe conditions for drivers and pedestrians. Where set-down/pick-up points are not for use by taxis, this should be clearly signposted to avoid confusion.

Set-down/pick-up points should be weather protected wherever possible, however, canopy structures should not impeded vehicle access, with a minimum clearance height of 2.6m required for minibuses.

To deploy and use nearside ramps, set-down/pick-up areas should have an adequate length of straight raised boarding area. Set-down/pick-up areas should also be long enough to accommodate the use of rear fixed ramps. Obstacle free routes should allow for transfer to and from a wheelchair without being obstructed by other pedestrians. The width of the unobstructed footway (recommended ≥4040mm) should allow for the deployment of wheelchair ramps and manoeuvring by wheelchairs.

Dropped kerbs should be provided in strategic locations to allow wheelchair users to move off the carriageway. These should be designed in accordance with Figure 2 (6.1) of BS8300-1:2018.

Accessible help points should be provided near to set-down/pick-up points to allow persons of reduced mobility to call for mobility assistance when required.

A short term waiting area should be provided for drivers waiting for disabled passengers, in addition to and near the set-down point. A weather protected waiting area with seating should be provided in view of the pick-up point.

For further guidance, see 2.1.3 NR/GN/CIV/300/04 (Inclusive Design Compliance), which takes precedence over this guidance manual.

Image 4.6
Taxi set down, integrated with public realm landscape London Kings Cross.

Standards Reference

Design of an accessible and inclusive built environment - Part 1: External - Code of Practice (2018)
BS8300-1:2018, 6.1
SIDOS (2021)
National Railway Security Programme
DfT: Security In the Design Of Stations

NR Guidance Suite Reference

Parking & Mobility at Stations
NR/GN/CIV/200/11

Inclusive Design Compliance
NR/GN/CIV/300/04

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4.4 Taxi Ranks

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4.4. Taxi Ranks

Where space permits taxis should be segregated from private vehicles, with taxi ranks to be clearly signposted to avoid abuse by others. Taxi ranks may also need to be segregated between licensed taxis (hackney carriages) and private hire, depending on station constraints. Larger city centre stations are more likely to require a dedicated rank for licensed taxis. In rural locations, private hire taxis are a valuable, often essential service, for those who do not drive to the station themselves. Where taxi ranks are located outside the station demise, they should be clearly signposted for station users.

Taxi ranks should be designed to facilitate access into all vehicle types without creating safety risks, noting that wheelchair access to most taxis is on the nearside, though some taxis load wheelchair users through the rear door or far side door. To deploy and use nearside ramps, taxi ranks should have an adequate length of straight raised boarding area. Where practicable, taxi ranks should be designed so that passengers can alight at pavement level or at road level.

Taxi ranks, and particularly space for queuing taxis, should be designed with appropriate capacity for anticipated demand. Inadequate capacity or poorly designed multi-use lanes for both taxis and private vehicles can lead to congestion, delays and unsafe conditions.

Taxi ranks should provide clear waiting spaces with marked queuing systems for station users. A weather protected waiting area with a range of accessible seating should be provided as part of the taxi rank.

Crossings should be provided whenever pedestrians are required to cross taxi ranks, and should feature a dropped curb or raised table to provide level access.

For stations that are not level with the road, taxi ranks should be provided as close as possible, and within 50m, of lifts.

Accessible help points should be provided near to taxi ranks to allow persons of reduced mobility to call for mobility assistance when required.

During peak times at some stations and during any period of disruption, it is recommended that taxi ranks are staffed to manage queuing or help reduce anti-social behaviour.

CCTV should cover the full extents of taxi ranks within the station demise, and lighting should be of high quality so that station users feel safe.

Security measures around taxi ranks, including the provision of barriers or bollards should be considered on an individual station basis following consultation with relevant stakeholders, including the BTP. It is beneficial to provide customer information screens (showing departures and arrivals) near taxi ranks. If luggage trolleys are provided at a station they should be easily accessible from taxi ranks.

For taxi ranks where taxis don't stand at certain times, signage should detail such times and provide a telephone number to call for a taxi. This signage should be accessible to visually impaired station users.

Standards Reference

Design of an accessible and inclusive built environment - Part 1: External - Code of Practice (2018)
BS8300-1:2018, 6.1

Taxi Ranks at Major Interchanges - Best Practice Guidelines (2006)
Transport for London

SIDOS (2021)
National Railway Security Programme
DfT: Security In the Design Of Stations

NR Guidance Suite Reference

Parking & Mobility at Stations
NR/GN/CIV/200/11

Urban Realm Design
NR/GN/CIV/200/10

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4.5 Car Parking

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4.5 Car Parking

Car parking and its availability has a substantial impact on passengers' end to end journey, with the experience varying considerably between stations. In more urban locations where public transport connections are good and pressure on land is intense, car parking may be confined to blue badge holders and minimal short-term provisions. However in more rural locations, parking is an important element in a sustainable transport system; if suitable parking is not provided at stations in these locations, more people will rely on private cars for their entire journey, as opposed to driving at the start and end of their trip and taking the train for the majority of their journey. The provision of car parking (including space for motorcycles) should therefore be considered on an individual station basis, taking into account alternative public transport availability, the proximity of local healthcare and educational establishments and local geographical constraints.

Parking can also provide a significant source of revenue and in many instances, car parks are leased to commercial partners. Where proposals include the reduction or relocation of parking, the financial impact of this therefore needs to be considered as part of the project's economic case. Extinguishing leases can also have an impact on project delivery timescales. Where car parking is provided, blue badge (accessible) parking spaces should number 5% of the total provision, with a minimum of one space provided.

Clear wayfinding should be provided throughout car parks, at entrances, and at each change in direction. Clearly marked walking routes should be provided. Blue badge parking should be located as close as possible to the station's accessible entrance; where this distance exceeds 50m, resting places should be provided at 50m intervals. A 5% provision for both wide aisle and blue badge parking should be incorporated.

Designers should note the increased headroom requirement of 2.6m in station car parks as per the DfT Code of Practice (C1), and BS8300-1:2018 7.11.5. This height restriction may make standard MSCP solutions (which provide 2.1m vertical clearance) non-economic, and consideration should therefore be given to the provision of blue badge spaces for vehicles with high-top conversions outside the main building.

Car parks should be secure and well-maintained, so that station users feel safe. This should include visible CCTV and high-quality lighting throughout.

Network Rail's commitment to de carbonisation includes the provision of electric vehicle charging points (EVCPs), with station operators encouraged to install EVCPs to expand charging infrastructure, including charging points for blue badge holders.

For further guidance, see NR/GN/CIV/200/11 (Parking and Mobility at Stations), and NR/GN/CIV/200/12 (Third Party Funded Railway Car Parks).

Image 4.7
Electric vehicle charging points in multi-storey car park, Leeds

Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)

PRM NTSN 4.2.1.1

Rail Delivery Group: Station Car Parking Good Practice Guide (2018)

RDG Good Practice Guide

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)

SIDOS (2021)

National Railway Security Programme

DfT: Security In the Design Of Stations

NR Guidance Suite Reference

Parking & Mobility at Stations
NR/GN/CIV/200/11

Third Party Funded Railway Car Parks
NR/GN/CIV/200/12

Image 4.8
Customer Information Screens,
Glasgow Queen Street

Station Facilities & Amenities
Facilities

5

Facilities
5.1 Facilities Introduction

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Image 5.1
Simplified terminus station diagram showing placement of facilities

5.1 Facilities Introduction

Station facilities are essential services for passengers. The scale of provision may vary between station types, but most stations will include these facilities in some form. The diagram on the left shows a simplified, larger terminus station with facilities located to best-suit passenger movement and convenience. They should be considered as primary station functions and their location takes precedence over amenities, described in thenext section. Facilities include:

· Customer Information Systems
· Rail Information
· Information Points
· Ticket Office
· Ticket Vending Machines
· Ticket Gates
· Waiting Rooms
· Assisted Travel Lounges and Desks
· Seating
· Help Points
· FIrst Aid Facilities
· Public Toilets
· Rubbish Bins
· Lost Property

Facilities

5.1 Facilities Introduction

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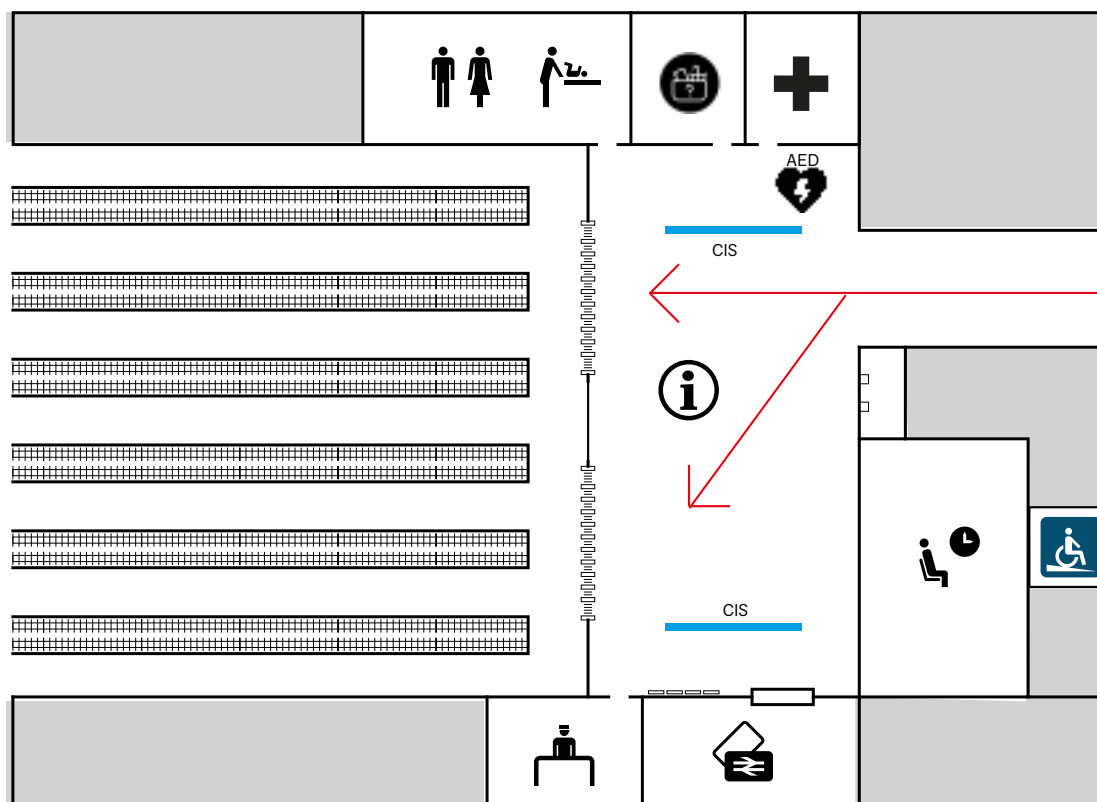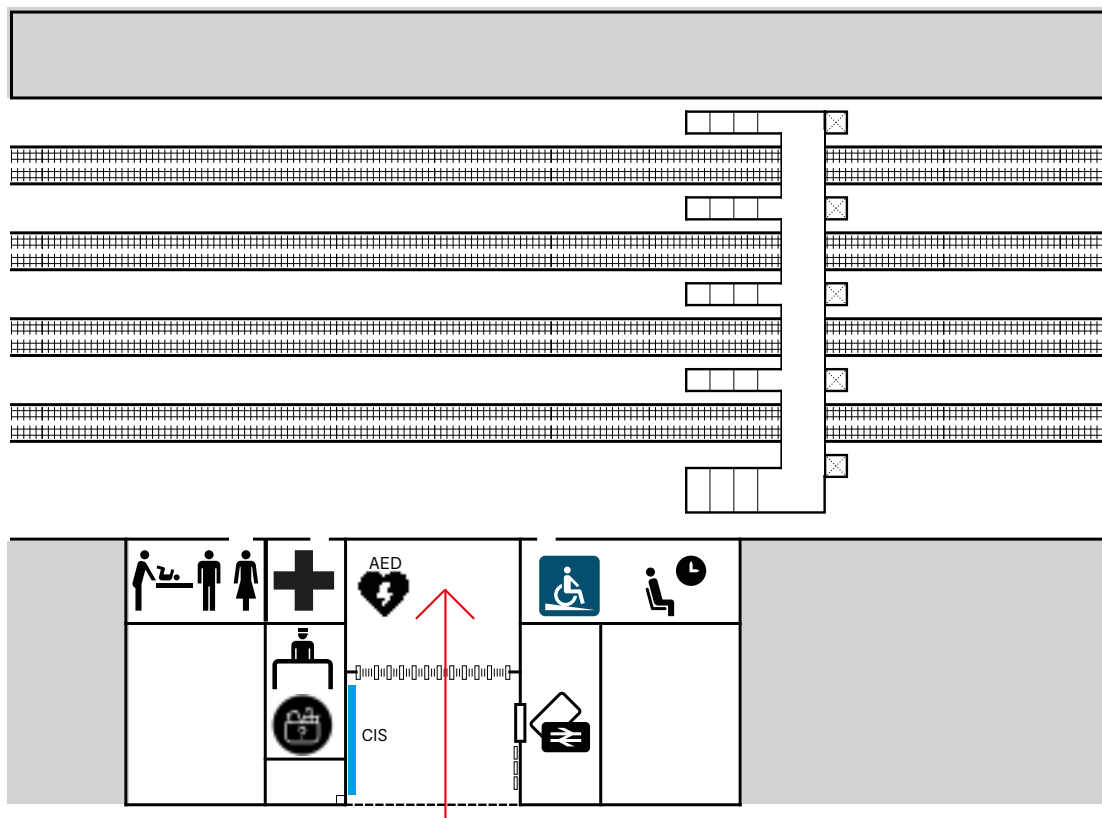
The diagram on the left shows a simplified, medium-sized through station with facilities located to best-suit passenger movement and convenience.

Image 5.2
Simplified through station diagram showing placement of facilities

Facilities
5.2 Customer Information Systems

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5.2 Customer Information Systems

Customer information systems (CIS) provide passengers with real-time information about their journey, and may include:

· platform information
· train information
· train calling points
· train location
· train loading
· train boarding status
· next train indicators
· delays and/or cancellations
· fastest train advice
· A-Z destination listings

The placement and location of CIS has a major impact on passenger decision-making and can have a significant influence on flows and points of congregation. These locations should therefore be considered with care. They need to be clearly visible from primary pedestrian routes, but should not adversely affect pedestrian flows, with CIS to be located perpendicular to flows when possible. Where departure boards are provided in a single location on concourses, there is greater potential for crowding, particularly at stations serving long-distance routes where dwell times are longer and passengers typically wait for longer before boarding trains, or during times of service disruption when large numbers of passengers accumulate waiting for train information.

CIS, and particularly departure boards, should be provided at frequent intervals on concourses and at the correct positions on platforms to provide ongoing information for passengers. It is important that a sufficient number of screens are provided, able to cover all information in times of disruption.

CIS on platforms should be specific to that platform only, provided at all platform entrances and at regular intervals along the platform. This is particularly important on island platforms, or where platforms are subdivided, e.g. 1A, 1B. Existing CIS deficiencies most commonly relate to poor provision on platforms.

The location of CIS should be carefully considered to reduce the incidence of glare which can cause visual discomfort and reduce legibility. The mounting height of CIS screens should consider visibility for those in wheelchairs and other seated mobility devices.

CIS should avoid being positioned too close to advertising screens which can be distracting and create visual overload for people with neurodiversive disabilities.

Summary departure and/or arrival screens should be located where passengers are likely to dwell but no clear view of the main departure boards is provided. This may include waiting areas/seating, retail areas, and lounges.

Image 5.3
New generation CIS at London Waterloo.

Image 5.4
Customer information screens, Glasgow Queen Street

Facilities
5.2 Customer Information Systems

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It is beneficial to provide A-Z destination listing showing the next fastest trains to selected destinations at larger stations. At stations where passengers are likely to interchange with another transport modes, it may be useful to have CIS showing the status of relevant transport modes, e.g. TfL line service status.

Indicative layouts are provided for the purposes of space planning, however, the provision of CIS including Next Train Indicator displays (NTI), Special Notices (SN) and Summary of Arrival (SOA) displays should be assessed on an individual station basis.

CIS should be included within the design of wayfinding systems, and positioned at a consistent height across the main station spaces to be in a recognisable and intuitive position for passengers.

CIS should be of consistent design and display type throughout stations, with screens capable of providing a range of information.

Existing CIS may be life expired or feature obsolete technology, therefore it is important that any new CIS design is flexible and should allow for access, maintenance, and future upgrades.

Consideration should be given to people with visual impairments and/or cognitive disabilities so that they have enough time to comprehend information.

CIS should have good luminance contrast between text and background, meeting the contrast standards for fixed signs and with a minimum difference in LRV of 70 points. Screen materials should be as matt as possible to reduce veiling reflections. High level-screens should be fixed at an angle between 5 and 15 degrees depending on the mounting height.

Public address announcements (PA) should be integrated with CIS, so that visual information is the same as audible systems.

For further guidance, see 3.3 NR/GN/CIV/300/04 (Inclusive Design Compliance), and NR/GN/CIV/300/01 (Wayfinding Design Guidance), which take precedence over this guidance manual.

Additionally, designers should refer to NR standards for CIS, including NR Customer Information Systems and Service Prerequisites.

Standards Reference

Electronic Visual Customer Information Systems
NR/L2/TEL/30130

Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 12

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
DfT Code of Practice

NR Guidance Suite Reference

Wayfinding Design Guidance
NR/GN/CIV/300/01

Inclusive Design Compliance
NR/GN/CIV/300/04

Facilities
5.2 Customer Information Systems

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Image 5.5
Signage Location Schematic Diagrams

Fig. 8 Signage Location Schematic Diagrams
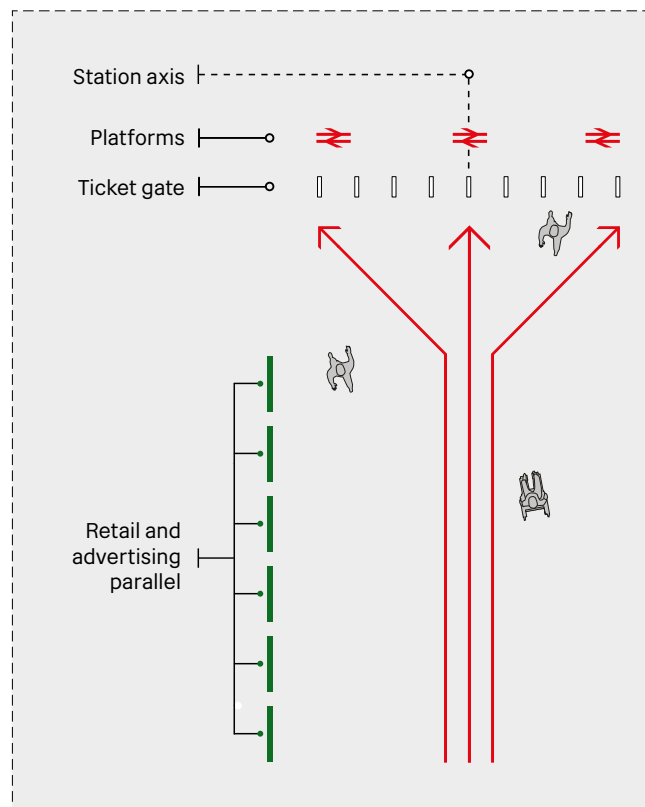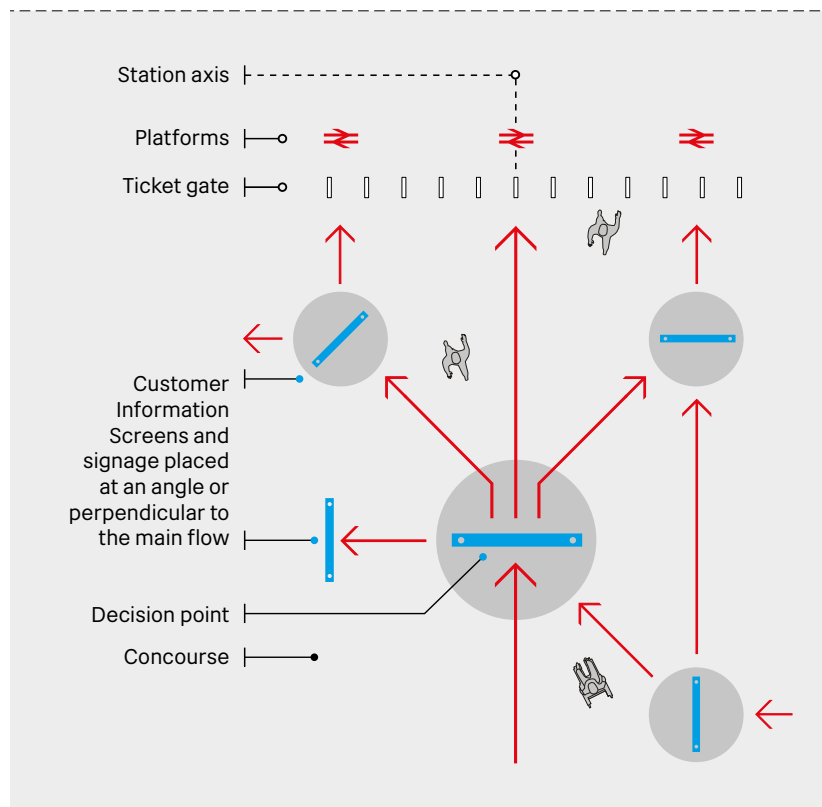
In stations, it is critical that there are clear lines of sight between the passenger decision-making points and the signage which is providing information for that decision to be made. Signs should be located with a common rationale, considering how they will be read, by whom, from which direction, at which height, and in relation to other elements that exist or will exist within the space.

The location of signage should always follow from the passenger circulation mapping and decision point analysis, and not the other way around. Signs should be placed perpendicular to the main paths of movement, so that they can be seen by flows of passengers while moving.

Standards Reference

Station Wayfinding Design and Assurance Procedure

NR/L2/CIV/150

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5.3 Rail Information

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5.3 Rail Information

Rail information (sometimes referred to as RIS/OIS) provides passengers with general information about the station and differs from CIS in that it is not train-service specific. Traditionally rail information is provided on fixed double-royal (635mm wide x 1016 high) or quad royal (1207 mm wide x 1016mm high) poster frames mounted on concourse walls or as on free-standing fames on the unpaid side of the gateline. Where quad royal frames are used these can generally accommodate two information posters mounted side-by side.

The provision of adequate space for this information is particularly important in small and mid-sized stations where there may be competing demands for wall space from ticket and information windows, ticket vending machines, cash machines and the like. Free-standing poster frames are sometimes installed externally on the station forecourt but internal installation is preferred as external frames often suffer from damp and condensation causing poster glazing to fog or posters to wrinkle and discolour. For all stations the following rail information should be provided as a minimum:

- Welcome poster. Station specific located outside the gate line area and near every station entrance/exit. It should include multiple pieces of information that are a legal requirement. Updated twice a year (for NRPS scores), or as required.

- Onward Travel. Station specific and should be located outside the gate line area at main entrances and any other 'important' entrances or those which have bus stops nearby). Updated Annually or as required.

- Penalty Fares notice.

- Change to Service Poster. An engineering map poster, this includes all planned service changes over 3 or 4 weeks.

-. Delay Repay/Compensation poster. Single design network-wide. Updated as required.

-. Campaign posters poster as mandated by any of RDG, DfT, RSSB, ORR (eg Covid 19)

Digital posters are becoming increasingly common and can reduce the total number of displays by combining some (though not all) of this information above. Passenger convenience needs to be considered as it can cause frustration if onward travel maps, for example, rotate with other posters.

Rail information should be of consistent design and display type throughout a station both in terms of display type, mounting height and spacing. Printed timetables are used far less frequently with the advances in digital information. They occupy large areas of wall space or free-standing carousel racking. They are no longer necessary in most stations though some Train Operators still require them as part their franchise obligations and the Operator should therefore be consulted on individual requirements.

No-smoking posters should be located carefully and only where necessary, to avoid clutter.

Image 5.6
Rail information coordinated with wall linings, London Bridge Station.

Facilities
5.4 Information Points

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5.4.1 Information Points

Information desks and counters are an important station facility, allowing station users to identify a point of assistance and/or information. They vary in size and type, ranging from simple pop-up counters for temporary use, to fully enclosed, permanent offices at major stations. Regardless of type, the design of mobile information points should allow staff and customers to interact from sitting and standing positions, so that information is accessible to users.

Permanent information desks should be clearly signposted on station wayfinding and located in a highly visible location, such as adjacent to a gateline or at the perimeter of a concourse.

5.4.2 Pop-up Information Kiosks

Larger stations may utilise pop-up information kiosks on a temporary basis to deal with specific events, or to provide information at times of disruption or station change. These are the simplest form of information point comprising a demountable frame including a simple desk with wayfinding signage at high level. Kiosks of this type, if left in place at night, should be of a 'closed' style so that they can be fully secured and the contents locked when not in use. This prevents information points from becoming an unnecessary security risk for hidden packages.

5.4.3 Mobile Information Points

Mobile information desks with digital functionality provide more flexibility than a traditional offices and are more versatile than simple kiosks. They can be hard-wired for power and data through floor box or wall mounted outlets with internet connections, or have wireless internet. Recent advances in battery storage technology have also seen a number of roll-away desks in use. These can be 'docked' at night for battery charging, making them particularly flexible as they are not reliant on fixed power or data connections. Some station Operators are also using this type of information point to dispense tickets. To date this has been based on phone sales using digital tickets that do not require cash transactions (mobile cash collection systems remain prohibitively expensive) but it is likely that this will become more commonplace in the future.

Mobile information points should be positioned where they are most useful, e.g. in the centre of a concourse. Their location should be highly visible without adversely affecting pedestrian flows and should not be immediately in front of gatelines, below CIS, or on routes with constrained width.

Image 5.7
Mobile Info Desk, Manchester Piccadilly.

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5.4 Information Points

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5.4.4 Permanent Information Offices

In many physical respects these are the same as traditional ticket issuing windows with counters that are fully accessible for both staff and customers and include glazed enclosures which allow help staff to be easily seen from the concourse, but allow the offices to be fully secured when not in use.

These should be located where they are highly visible from the main concourse and include wayfinding signage. Their location should allow for customers to wait away from primary pedestrian flows.

5.4.5 Automated Information Points

Electronic information points with integrated battery units that are charged overnight,are increasingly useful for providing customer information. These displays can be positioned throughout stations and are less space/resource intensive than kiosks or desks. They enable station users to self-direct to the information type they require. Consideration should be given to their location so that they do not block passenger flows.
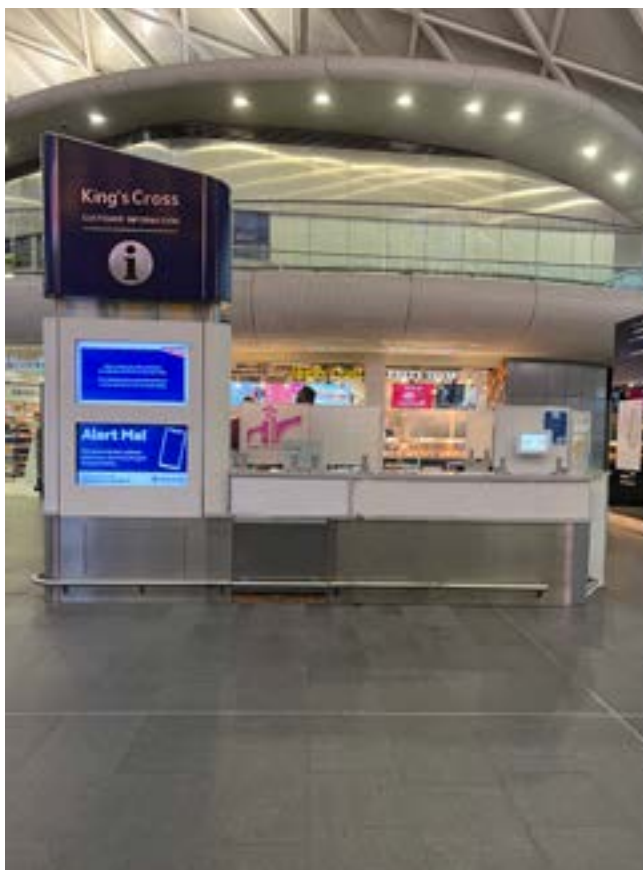

Image 5.8
Freestanding information desk, King's Cross Station

Image 5.9
Freestanding information office

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5.5 Ticket Offices

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5.5 Ticket Offices

Though ticketing is increasingly digital, with options to purchase tickets online or at a TVM, some passengers prefer to purchase tickets from staff at a ticket office. Additionally, ticket offices remain an important point of contact between staff and station users in many stations. At smaller stations, the ticket office is likely the only place where staff can be located and therefore acts as a point of reference to other station facilities and amenities.

Ticket offices are generally a built-in element within the station concourse, most typically recessed into a wall surface with an issuing window facing the main concourse, located on the unpaid side of the gateline. They are frequently located close to the gateline itself, which can have particular benefit in terms of collecting excess fares and in some instances they can be used to manage gatelines remotely at times of low use. This gateline relationship is of particular importance for small and medium sized stations as the windows should provide sufficient space for passengers to queue, without obstructing gateline flows.

Ticket counters should be fully accessible and take full account of customers using wheelchairs. This has implications on the location of payment card machines and cash / ticket dispensing drawers, as well as the height and knee-clearance of the desk itself.

The public facing side of the ticket windows should be common to all stations in terms of standards for the layout of the customer desk, type of window and amenities for those with sight and hearing impairments. The layout and design of the staff side of the desk may vary between Train Operators and it is important for designers to obtain Operator support as there are individual union-related requirements that may differ regionally. However the Operator requirements should not influence the design principles for the public side of the desk.

Existing stations should seek to rationalise the ticket office area or the number of windows where an excess is provided as customers transition to other forms of ticketing. Under utilised space within ticket offices may be able to accommodate other station facilities such as waiting areas or assisted travel lounges where these are not provided.

Diagrams detailing these design considerations are provided by Ideas Ltd. in Appendix B as part of a previous commission on Inclusive Designs for Ticket Office Counters (customer and staff facing).

Image 5.10
Accessible ticket window

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5.5 Ticket Offices

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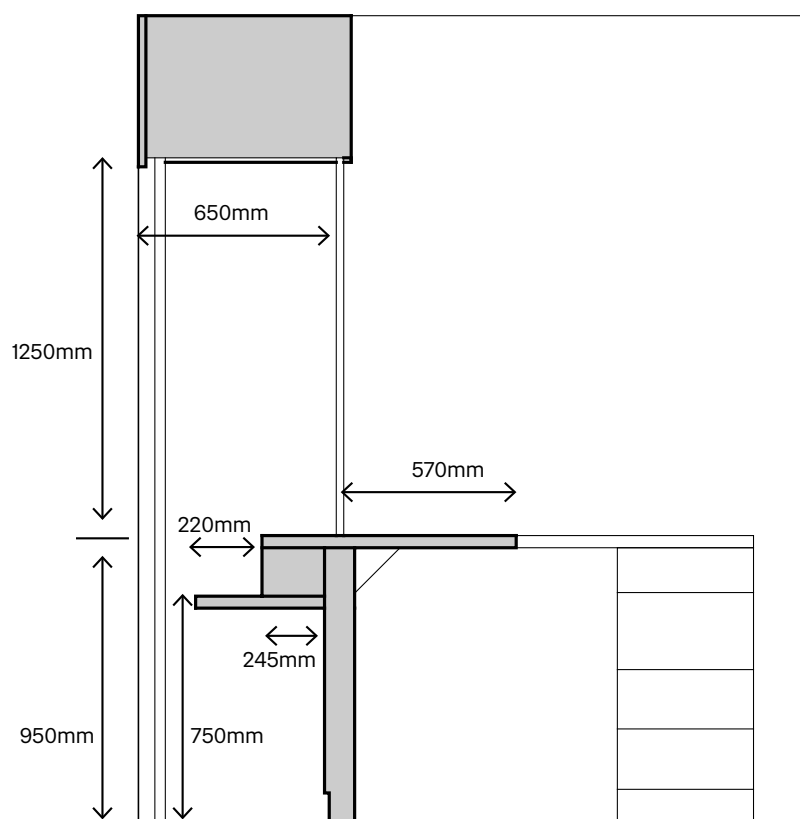Issued: March 2022
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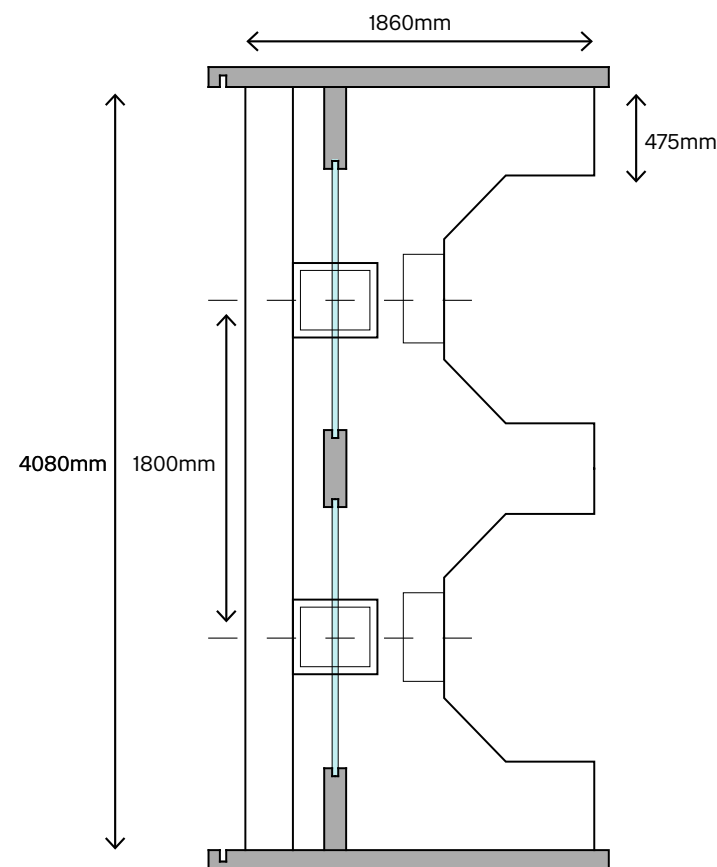**OFFICIAL**

Image 5.11
Ticket counter section (NTS)

Image 5.12
Ticket counter plan (NTS)

Facilities
5.6 Ticket Vending Machines

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5.6.1 Ticket Vending Machines

Ticket Vending Machines (TVMs) are provided for the sale and dispensing of multiple ticket types, in addition to the top-up/validation of smartcards (where enabled). TVMs are relied upon for ticketing at unstaffed stations (the majority of UK stations), however, in the event that TVMs are out of order an alternative means of ticketing should be made available (e.g. purchase on train, or at destination station).

Larger stations should provide staffed services, such as a ticket office, as an alternative means of ticketing for passengers who may have difficulty using TVMs.

5.6.2 Design Considerations

Space for TVMs should be provided adjacent to ticket offices. TVMs may be organised in a single location such as this, or in smaller groups in multiple locations depending on station layout. At larger stations it is helpful to provide TVMs near to each station entrance where space allows.

Wherever TVMs are provided, consideration should be given as to the direction in which passengers will queue, with organised queuing systems in place to control the number of passengers. Queuing systems should not adversely impact pedestrian flows or obstruct the concourse, with particular attention paid to congestion near gate lines, ticket offices, or at narrow points of circulation.

Where TVMs are arranged in multiple locations, wayfinding signage should clearly indicate all locations. Signage to alternative TVMs should be provided so that a single TVM location does not become overcrowded. It is important that a sufficient number of TVMs are provided to avoid long queues and crowding at peak times.

For space planning purposes, conventional TVMs have a footprint of 500 x 900mm, though unless mounted on a heavy-duty slab, they may require a concrete plinth of 570 x 1000 mm to provide a secure base fixing. A minimum unobstructed manoeuvring space of 1500 x 1500mm should be provided to the front of TVMs for replacement. The hinge mechanism on the doors of conventional TVM's also require a clear space of 200mm between machines to allow front access panels to be opened fully.

More recent ticket vending machines have recently been installed and are being trialled by Train Operator GTR at Gatwick airport. These are considerably narrower and slimmer (c750mm x 350) and provide better key-pad access for wheelchair users. However, these slimline machines do not allow for cash-based ticket purchases and a convetional ticket machine should be considered in addition, to allow for this.

Image 5.13
Queues for TVMs (one of several banks in station), London Bridge

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5.6 Ticket Vending Machines

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The design of TVMs should make them as easy to read, understand, and use as possible, with screens to provide good contrast and legible fonts. TVMs should be carefully sited to minimise glare and reflection from natural and artificial light sources. It is recommended that lighting around ticket machines provide a minimum of 200 lux. Flat tops should be avoided as these present a risk of drug and weapon concealment.

TVMs should be compatible with operator specific smartcards and season tickets where relevant, including metro operator smartcards for stations within metro fare zones (TfL, SPT, Nexus). TVMs should also be capable of selling tickets with all of the discounts (including Railcard discounts) available at a staffed ticket counter.

RDG Design Guidelines for TVMs are concerned with the design of the graphical user interface on TVMs and will, when adhered to, improve the ticket purchasing experience for customers.

Standards Reference
DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
DfT Code of Practice
RDG Ticket Vending Machines: Design Guidelines (2016)
RDG TVM Design Guidelines

Image 5.14
Next generation ticket machines installed by Train Operator GTR at Gatwick Station.

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5.6 Ticket Vending Machines

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600 mm

900mm

200mm

1975mm

570mm

1000mm

1380mm

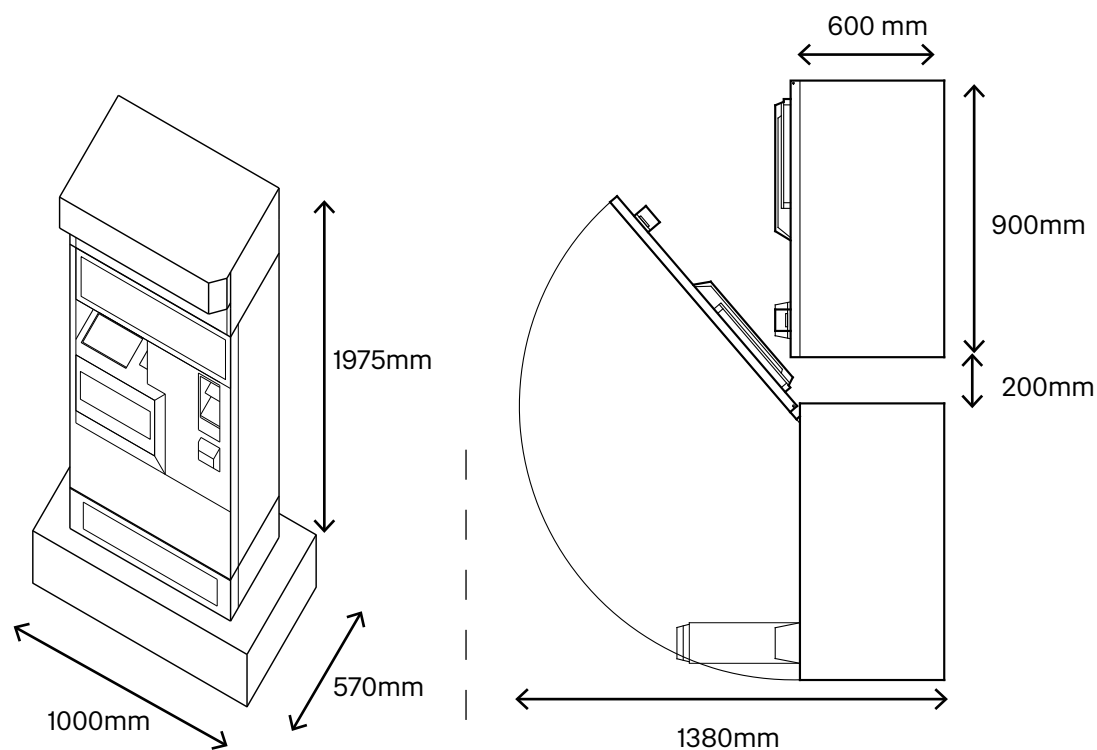1200mm

700mm

2336mm

747mm

351mm

Image 5.15
Conventional ticket machine dimensions - note the need to provide hinge space between machines.
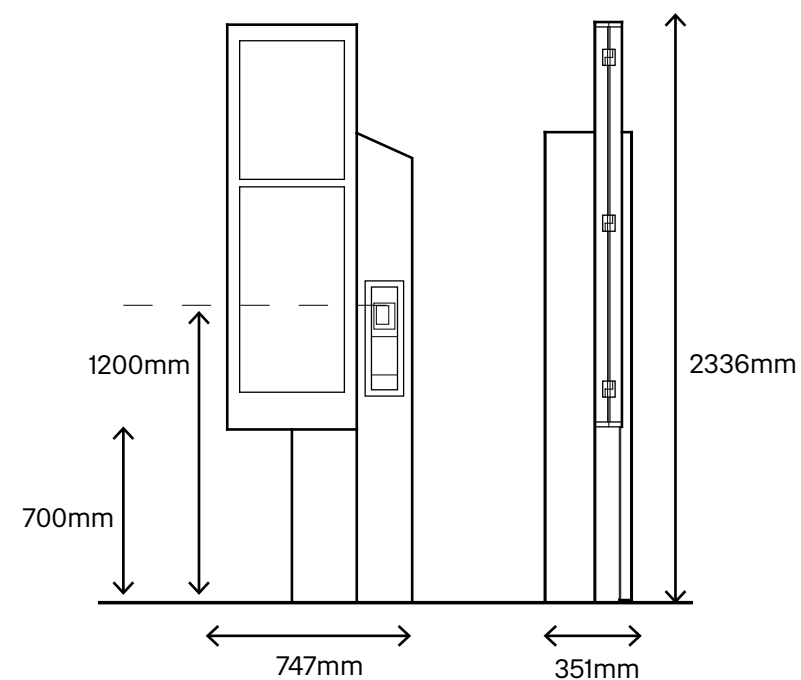
Image 5.16
Slimline ticket machines installed at Gatwick Airport

Facilities
5.7 Ticket Gates

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5.7 Ticket Gates

Ticket gates are now in use in most mid and large scale stations. They reduce fare evasion significantly and can be used to restrict passenger flows onto platforms at times of extreme congestion. They are most frequently installed by Train Operators though Network Rail also procures gates in some instances. The number and arrangement of gates will be determined by the peak-time flows, the number of entrances and the physical layout of station. The safety considerations of introducing ticket gates and their impact on pedestrian flows should be a key layout consideration. As general guidance ticket gate arrays (groups) should adopt the following principles:

- Gates should be arranged in a straight line wherever possible. Stepped arrangements should only be introduced where these are essential due to spatial constraints; straight gate lines are far easier for gateline staff to monitor, simpler for passengers to navigate and make wayfinding signage more straightforward.

- Good sightlines with long views are a significant advantage. This allows passengers to see which gates are open and closed, indicated by a red cross or green arrow on the gate post, reducing late decision making and flow conflict close to the gateline. In very busy stations consideration should be given to overhead gate direction indicators.

- All gatelines should be fitted with at least one wide aisle gate. These cater for wheelchairs but are also widely used by families and people with large amounts of luggage. In all but the smallest of stations two wide aisle gates, one in each direction, are preferred. The cycle time of wide aisle gates is considerably slower than standard gates and capacity calculations should take account of this.

- Unless rain-resistant gates are provided (which are significantly more costly) gates require canopy cover that protects rain at a 20 degree angle. To achieve this cut-off protection, gates either should to be set well away from entrance doors, or be provided with low-level canopies.

- Cable management for gates can be via ground-trenches below the centreline of the gate (preferred) or through shallow raised thresholds where this is not possible. The floor levels beneath gates should have a gradient of less than 1:40.

- In high security risk stations, where glass barriers are used adjacent to ticket gates, glazing should be laminated.

Standard gates are 775mm in width (centre to centre) and wide aisle gates are 1235mm wide. Where sited directly next to walls or columns, 500m spacing should be provided to the centreline of the adjacent gate.

Historically all gatelines required permanent staffing when in use, though some Train Operators now allow remote operation of secondary gatelines using CCTV and remote operation. Where more than one gateline is installed, it is preferable to maintain clear sightlines between them so that gateline staff can monitor more than one gateline at once.

The incorporation of gate-mounted QR code readers for passengers with print at home or phone tickets are helpful and can increase gate through-put. They should be provided where appropriate. Detailed dimensional and setting out advice should be sought from the gateline provider which is currently Cubic, though alternative suppliers are likely to enter the rail market shortly and project teams are advised to consult with Train Operators to establish supplier details. The gates need to be fully integrated with wider ticketing IT systems and software, so alternative products are not readily interchangeable.

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5.7 Ticket Gates

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500mm | 1235mm | 775mm | 775mm
edge offset | wide aisle | standard | standard
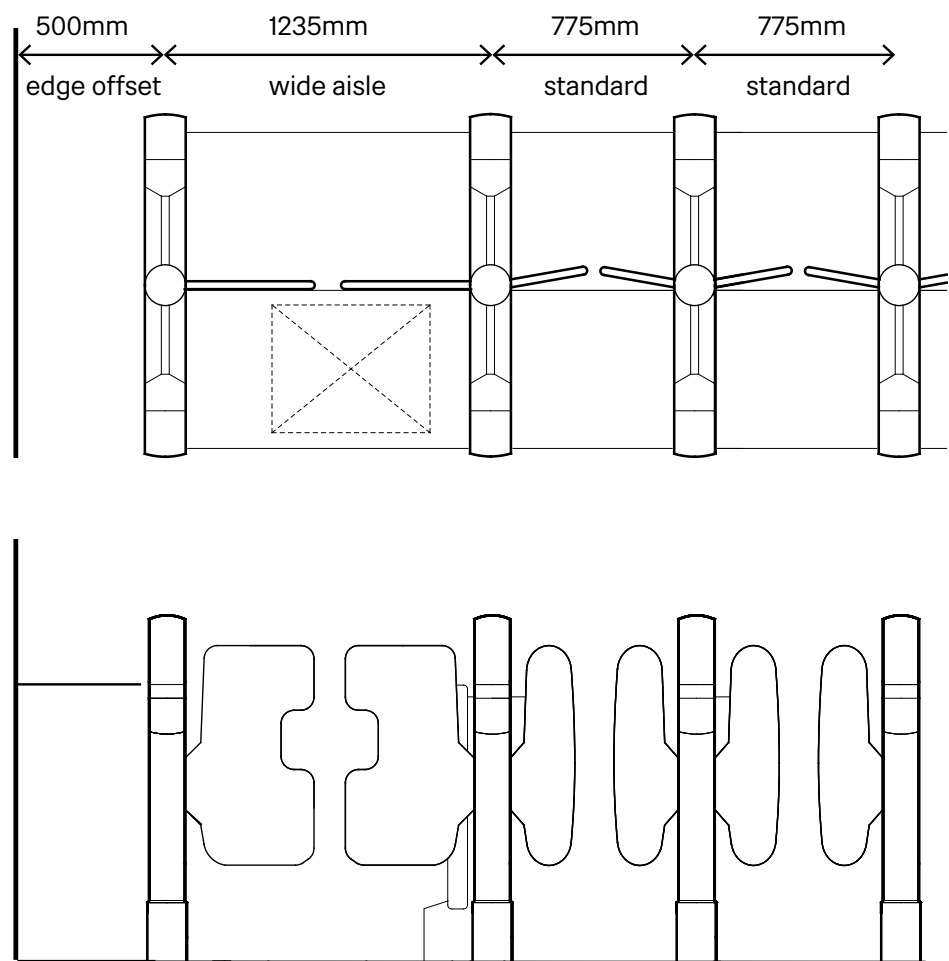
Image 5.17
Ticket gate dimensions (NTS)

Image 5.18
Ticket Gates, West Hampstead Thameslink

Facilities
5.8 Waiting Areas

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5.8.1 Waiting Areas

Waiting areas are used by a wide variety of station users including the non-travelling public, and are particularly important for persons of reduced mobility. Waiting areas may include waiting shelters, waiting rooms, assisted travel lounges, first class lounges and areas of flexible seating.

Waiting areas within concourses consist of seating types organised around station architecture or other facilities such as information points, or pop-up retail units. These waiting areas provide greater flexibility than enclosed waiting rooms and are often better located for station users. Seating arrangements should consider the spatial requirements of the concourse and should not disrupt pedestrian flows or obstruct access to any other facility.

All waiting areas should be easy to locate, comfortable, and welcoming to station users. They should have clear sight of a CIS screen. It is important that waiting areas have sufficient space to accommodate wheelchair users (a minimum of one space) and parents with double buggies, and provide a range of seating types. In larger stations where dwell times are longer, consideration should also be given to including areas for soft play and parent and child wating space, if space allows. Suitable seating for persons of reduced mobility should be provided in all instances. Layouts or provision of furniture should be defined by station constraints and availability of space.

Image 5.19
Concourse Waiting Area, London Victoria

Image 5.20
Concourse Waiting Area, Edinburgh Waverley

Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)

PRM NTSN 4.2.1.7

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)

DfT Code of Practice

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5.8 Waiting Areas

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5.8.2 Waiting Rooms

Waiting rooms are primarily located on platforms providing an enclosed environment for passengers to wait. Waiting rooms are not required all stations, however, they should be provided where passengers are expected to dwell for longer periods, i.e. at terminus stations, sized accordingly to demand.

Where waiting rooms are provided they should be clearly visible and conveniently located at points on the passenger journey, e.g. adjacent to retail units on concourses, or close to platform entrances. Enclosed waiting rooms should be fitted with automatic doors to improve accessibility, and heated where provided in external environments (e.g. platforms) to aid passenger comfort.

Customer information should be provided within waiting rooms, including customer information systems (CIS) and undistorted PA announcements linked to induction loops.

Existing waiting rooms with heritage constraints are often improved through sympathetic refurbishment and the incorporation of a café or retail unit.

Image 5.21
Waiting room at Huddersfield Station

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5.8 Waiting Areas

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5.8.3 Waiting Shelters

Waiting shelters are appropriate for external use on platforms or in areas of intermodal interchange where passengers are likely to wait including, but not limited to, taxi ranks, pick-up and drop-off areas, bus and tram stops, and car parks. Waiting shelters should be provided on all platforms and aligned with other platform furniture. Waiting rooms and shelters on single face platforms should be located along the rear of platform. On island platforms, they should be located centrally, with offset doors on both sides to any enclosed structure.

Where lifts to platforms are provided, waiting shelters with seating and space for wheelchairs should be positioned adjacent. Waiting rooms and shelters should have sufficient space to accommodate wheelchairs. Lighting within waiting areas should be a minimum of 150 lux. In higher security risk stations, glazing should be laminated.

The design of waiting shelters should be consistent across a station. Shelters should provide adequate weather protection to all users, be robust and vandal resistant, whilst not overly defensive in appearance so they are still welcoming to passengers. Many 'standard' shelters in use across the UK have small gazing panes and thick framing which gives them a heavy and overly defensive architectural character. There are numerous European examples which are visually 'cleaner' and less cluttered in appearance.

Image 5.22
ProRail waiting shelter, Holland

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5.8 Waiting Areas

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Image 5.23
Emerging designs for waiting rooms, Network Rail Hub design,

Image 5.24
Conventional UK waiting shelter

Facilities
5.9 Assisted Travel Lounges

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5.9.1 Passenger Assistance

Passenger assistance at stations takes many forms from boarding ramps provided by train conductors at unstaffed stations, to dedicated assisted travel lounges with wheelchairs and buggies at some managed stations. Staff should be trained in assisting disabled passengers (with both visible and non-visible disabilities), older travellers, or those with temporary or permanent mobility issues who would otherwise be unable to travel.

5.9.2 Design Considerations

Assisted travel lounges provide a clearly visible point to consolidate accessible facilities and provide a base for assistance teams. It is preferable for assisted travel lounges to be located in a visible location on the main concourse, close to other accessible facilities such as accessible toilets, a Changing Places facility, or dog spending facility. Where accessible WC facilities are accessed via the lounge, a lobby should be provided affording greater privacy and dignity to station users.

Wayfinding signage should clearly identify facilities related to passenger assistance, including assisted travel lounges from a distance. The location of any lounge should work with station wayfinding strategies to make the lounge as easy to find as possible. Where lounges are provided, they should be spacious, with waiting areas large enough for a mobility scooter to be able to easily use the space. They should have seating and space to suit a variety of needs, including wheelchair spaces and spaces for assistance dogs to rest clear of thoroughfares. For stations that provide buggies and/or wheelchairs, sufficient space to park buggies and/or wheelchairs outside lounges should be provided. Lounges should utilise sensor-activated sliding doors to enable easier access and increase available space.

It is important that passengers are kept informed of train departures, with aural and visual displays to be provided, as well as induction loops for hearing assistance.

Lounges should go beyond a 'basic' level of functional design to provide an environment that is reassuring and pleasurable for station users to spend time in. This may include more varied seating options, refreshment facilities (water fountains, vending machines, ordering point for food retailers), charging points, a quiet space, or public art.

It is important that all furniture, fittings, and materials within assisted travel lounges satisfy requirements for accessibility and inclusivity as they will often be used by station users with varied needs and reduced mobility. For seating design considerations refer to section 2.7, noting that additional accessible seats may need to be provided in assisted travel lounges.

Image 5.25
Mobility Assistance Reception, London Euston

Image 5.26
Assisted Travel Lounge, Birmingham New Street

Facilities
5.9 Assisted Travel Lounges

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5.9.3 Alternative Facilities

For stations where there is no available space for an assisted travel lounge, a pop-up style lounge and check-in point centrally located on the main concourse should be considered. This should include many of the same provisions such as a range of accessible seating, meeting point, staff presence, and space for mobility scooters/wheelchairs/buggies to park.

Alternative locations for the provision of an assisted travel lounge include long term unused retail areas that are taken back under station control, or large travel centres capable of integrating assisted travel facilities.

Where stations integrate assisted travel facilities with staff facilities, such as a combined station reception and assisted travel meeting point, public facing facilities should be clearly signposted to avoid confusion.

Where stations are unable to offer dedicated assisted travel lounges (some managed stations require passengers to wait on the concourse and contact station staff), an internal or covered seating area should be clearly signposted as a waiting area for 'Assisted Travel' with appropriate seating types and accessible method for passengers to easily contact station staff. It is highly desirable for this area to be located within sight of staff.

Image 5.27
Assisted Travel Lounge, Birmingham New Street

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5.10 Seating

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5.10.1 Provision of Seating

Seating at frequent intervals within stations is essential for persons of reduced mobility to rest and recover. Seating should be provided near to entrances, lifts, travel information, toilets, and other facilities. Travel distance between seats/resting points should not exceed 50m on accessible routes, platforms, and areas where passengers are expected to wait.

The impact of large areas of seating on passenger flows should also be considered carefully. Recent installations at London Liverpool Street, while providing a useful passenger facility, have caused congestion at peak periods which could have been avoided if seating size and location had taken greater account of primary flow patterns. Where practical, seating should be provided for 10% of waiting passengers at peak times. Where minimal seating is provided, it should be clearly marked to prioritise disabled people, older people, pregnant women, and those carrying young children.

Where seating is provided, sufficient space is required for wheelchair users to wait (900mm x 1400mm) and manoeuvre (1050mm x 2300mm), taking into account additional space for parking pushchairs and storing luggage. Seating layouts should allow wheelchair users and companions to sit next to each other, with the number of wheelchair spaces provided to be in accordance with Table on the right of this page.

5.10.2 Inclusive Design Considerations

A range of seating should be provided to meet individual needs, including seating at multiple heights, with different combinations of armrests, and fitted with tables/charging points etc. where appropriate. Where a significant number of seats are provided, ≥50% should provide accessible features.

Where only one seat is provided this should be of standard height 450mm - 480mm from finished floor level. Where more than one seat is provided, seats should be provided at 380mm, 480mm, 580mm from finished floor level.

Standing rest bars that are 700mm above finished floor level, and ≥1400mm in length, should be provided for those who find getting out of standard seats difficult.

Seating should not obstruct the blind or visually impaired, and should be detectable at low-level by a long cane. Seating should provide space under (or adjacent) to allow an assistance dog to lie clear of the pedestrian route.

All station furniture including seating, should contrast visually with its background and have rounded edges to avoid injury.

Fixed seating capacity	Wheelchair spaces
≤25	1
26 - 50	2
51 - 300	4
≥300	6

Ratio of wheelchair spaces to fixed seating capacity.

Standards Reference

Persons with Reduced Mobility - National Technical Specification Notice (2021)

PRM NTSN 4.2.1.7

Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)

BS 8300-2:2018, 15.1

DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)

DfT Code of Practice

NR Guidance Suite Reference

Inclusive Design Compliance
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5.10 Seating

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Most seating should be back-supported, with at least one third provided with arm rests (some seats should not have arm rests). Arm rests should be provided at a height of 200mm from the seat surface and cover at least 80% of the seat depth. There should be a space between arm rests of ≥500mm, and they contrast tonally with the seat and backrest. Where wheelchair spaces are provided to the ends of benches, arm rests should be set in 500mm - 750mm from the transfer space to allow wheelchair users to transfer laterally onto the bench. Where there is more than one bench seat, a choice of left and right transfer should be provided.

5.10.3 Security Design Considerations

It is important that seating designs provide a clear view underneath seats and behind backrests, so that station users and staff are able to easily detect any unattended items and security concerns. Seating materials and/or finishes should be robust, durable and shatter resistant in the event of an explosion. Materials should also be inviting, not highly reflective and ideally not cold to the touch. The timber slatted seating recently installed at a number of managed stations has received positive customer feedback, with sufficiently flexible designs to suit a variety of station environments.

For further guidance, see 2.2.5 NR/GN/CIV/300/04 (Inclusive Design Compliance) which takes precedence over this guidance manual.
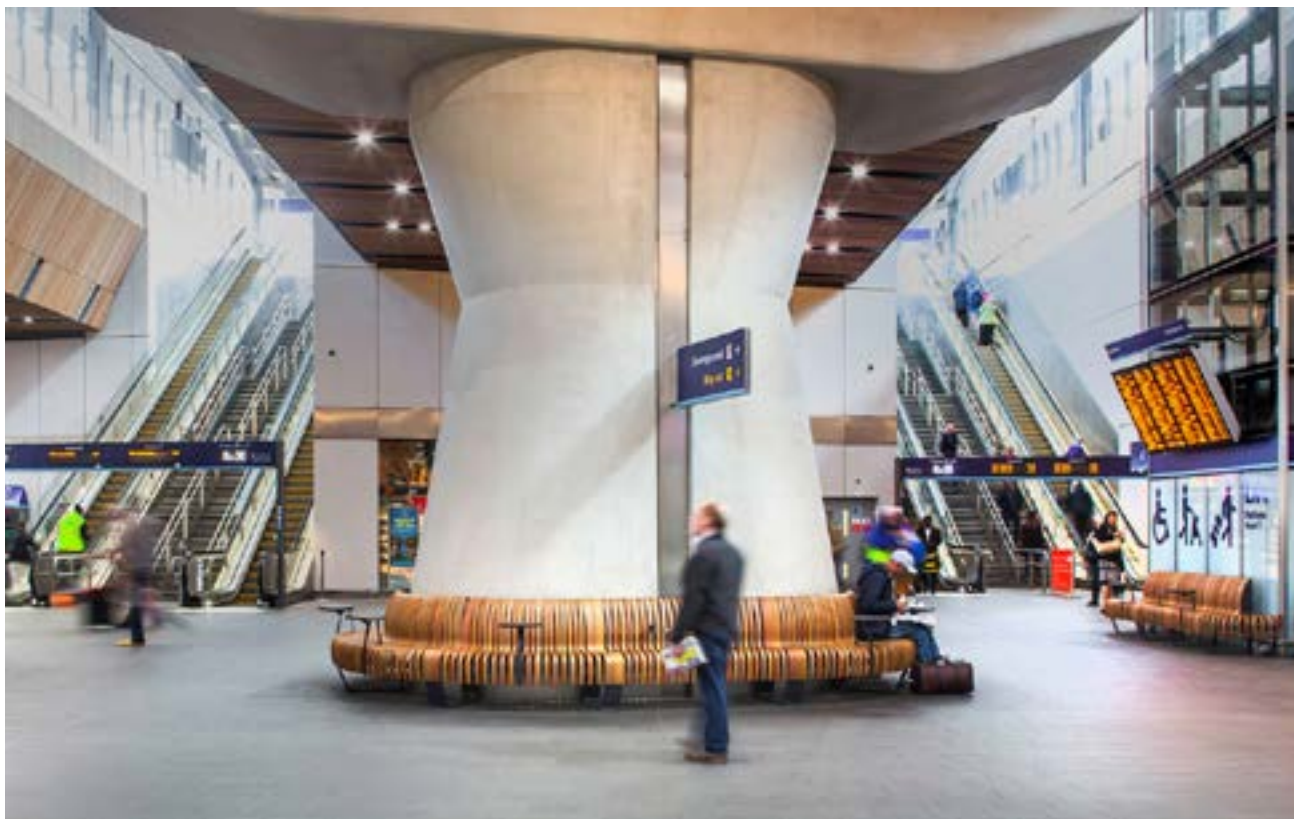
Image 5.28
Seating adaptable to station constraints, London Bridge

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5.11 Help Points

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5.11.1 Help Points

Help points provide a point of assistance on platforms, concourses, and in areas of intermodal interchange where staff are not available. They are particularly useful at unstaffed stations or where PA and CIS are not provided/out of service.

Staff should be available to answer calls at all times services are in operation. Help points at stations typically allow passengers to speak with a customer service assistant via an audio link by pressing the 'help' or 'assistance' button for general travel enquiries, in addition to an 'emergency' button which connects directly with emergency services.

5.11.2 Design Considerations

Help points should be located in clearly visible locations around stations, and designed so that visually impaired people can locate, recognise and use them. Suggested locations include blue badge parking, drop-off and pick-up areas, near to accessible facilities, waiting areas, and platforms, noting that their location should not obstruct pedestrian flows.

Help points should be fitted with CCTV to provide additional safety and security.

The controls on help points should satisfy inclusive design requirements, be within comfortable reach of wheelchair users and positioned between 700mm and 1200mm above FFL.
For further guidance, see 3.3.3 NR/GN/CIV/300/04 (Inclusive Design Compliance) which takes precedence over this guidance manual.

Standards Reference
Persons with Reduced Mobility - National Technical Specification Notice (2021)
PRM NTSN 4.4.1
DfT Design Standards for Accessible Railway Stations: A Code of Practice (2015)
DfT Code of Practice

NR Guidance Suite Reference
Inclusive Design Compliance NR/GN/CIV/300/04

Image 5.29
Plaform help point

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5.12 First Aid

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5.12.1 First Aid Rooms

First aid rooms provide a designated place for passengers to receive medical assistance, whilst maintaining the privacy of the affected passenger.

The provision of first aid rooms is not mandatory, however, it is advisable to provide them at staffed stations, and they should be provided at Category A and managed stations.

First aid rooms should be used solely for providing medical assistance, however, at stations where space is particularly constrained the first aid room may be shared with other functions provided that they do not impact on the safe and secure operation of this room. Privacy screens should be provided to separate functions of the space.

Welfare rooms may also be provided as a substitute for first aid rooms where space is constrained but an individual room can be provided. Welfare rooms should provide the same services as a first aid room but may not include the full required contents of a first aid room, such as a bed.

First aid rooms and welfare rooms should be designed to provide a clean, safe, and private space for trained staff to deliver first aid assistance.

5.12.2 Location

First aid rooms should be located near to entrances that lead on to parking or a roadway, to enable easy access by paramedics and ambulance crew.

First aid rooms should be fully accessible, and located on step-free routes for wheelchair access.

Access should not be via back of house areas as this can pose security issues when transporting passengers.

5.12.3 Design Considerations

New first aid rooms should have two means of entry/ exit to comply with fire regulations, and to provide staff with an alternative means of escape if faced with an aggressive passenger.

All first aid rooms should be fitted with emergency pull cords to assist with staff response in an emergency situation, telephones so first aiders can make contact with anyone required, and induction loops for accessibility.

The design and contents of first aid rooms should comply with NR/L2/OHS/00110 'First Aid at Work'. A suitably stocked first aid kit for operational environments should be provided in accordance with the above standard.

Image 5.30
First aid room at London Bridge

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5.12 First Aid

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First aid rooms should contain a bed (or couch where space is restricted) with waterproof protection, clean pillows and blankets, as well as table and chairs. The provision of a hoist can help provide assistance to passengers with limited mobility, and provides greater comfort than manual lifting.

Sinks should be provided with separate taps for hot and cold running water, soap, paper towels, and drinking water where this is not available on the mains tap. Any water for hand washing/showering should be no hotter than 43°C at outlet.

To maintain hygiene, surfaces should be easy to wash and maintain. Foot operated waste bins lined with yellow clinical waste bags should be provided.

First aid rooms should not be accessible to the public without supervision, and should be kept locked at times when they are not in use. Access should be controlled via staff swipe cards rather than a key, which could delay access in an emergency situation. As a restricted access facility, first aid rooms are not required to be listed on station wayfinding, however, it is important that first aid rooms are signposted in some way. Passengers requiring first aid assistance should first speak to a member of station staff, who should accompany them to the facility.

5.12.4 Automatic External Defibrillators (AED's)

Stations are also equipped with Automatic External Defibrillators (AEDs) for use in a medical emergency. Where possible, these should be located close to first aid facilities and should be accessible and prominently displayed. However as first aid rooms (and ticket offices) are locked when not in use, they should not be located within these rooms, so they are easily accessible at all times.

In public areas, mounting AED's in clear-fronted, break-glass cabinets discourages theft but allows them to remain clearly visible and accessible.

In larger station's several AED's may be required, located on platforms (where they are best located adjacent to help points), in loading bay areas and other high-risk locations.

Image 5.31
Wall mounted defibrillator in a glass-fronted cabinet.

Standards Reference
First Aid At Work
NR/L2/OHS/00110
Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018

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5.13 Public Toilets

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5.13.1 Public Toilets

The quality, security, and environment within station WC's is a major contributor to the satisfaction of station users. A consistent design approach should be implemented as described in NR/GN/CIV/200/04 'Public Toilets In Managed Stations'. The level of WC provision will vary based on several factors and should be considered on an individual station basis. WC provision in stations has historically been inadequate, particularly the quantity of female WC's, with the additional uplift in usage since station WC's were made free to use placing additional pressure on existing facilities. For guidance on calculating provision and appliance quantity, see Section 2 of NR/GN/CIV/200/04.

5.13.2 Design Considerations

Good WC design will consider the five guiding principles of: Dignity, Safety, Resilience, Accessibility, and Sustainability. Key design considerations should include: equitable provision for all user groups, improving air quality, using materials that are easy to clean/maintain, and robust design sufficient to cope with the intensity of use. Consideration of extended design life is essential in achieving long-term value; avoiding unnecessary and unpopular facility closures/relocation. For guidance on cubicle sizing, assembly, and space planning see Section 3 of NR/GN/CIV/200/04.

A range of cubicle types should be provided within separate-sex WC's to accommodate a variety of user groups. Additionally, accessible and gender-neutral sanitary accommodation should be provided for those that require it, so that there is equitable provision with the same level of dignity as separate-sex facilities. Seperate changing facilities, including provision for wheelchair users, should be allowed for.

Without an effective services strategy and approach to safety cosmetic upgrade will be insufficient to improve customer experience. Services should be designed to minimise maintenance in public-facing areas so there is continuity in provision to users. Sanitary appliances should have a clear services access route (non-public) to allow air extract, plumbing and maintenance to fittings from behind. To safeguard safety and security, any removable elements should either be avoided or made tamper resistant. The material and colour palette should be selected based upon a number of factors, including heritage considerations, appearance and customer experience, durability, ease of cleaning and maintenance, sustainability, whole life and capital cost.

WC's should be clearly signed on wayfinding and have a single entrance, providing a clear gateway to avoid confusion. Access routes to unisex/accessible facilities should be step-free. Where unisex/accessible facilities are not located within the main toilet block, clear signage should be provided at the entrance indicating the location of the closest accessible facilities.

Image 5.32
London Victoria WC's

Standards Reference

Sanitary Installations - Parts 1/2/3/4 - Code of Practice (2006/2017/2006/2010)
BS6465-1/2/3/4

Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 18

NR Guidance Suite Reference

Public Toilets in Managed Stations
NR/GN/CIV/200/04

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5.14 Rubbish Bins

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5.14.1 Rubbish Bins

Well-presented stations, free of rubbish, give users confidence that they are entering a well-managed and safe environment. Rubbish bins are a useful amenity for station users, however, their design and provision should be carefully considered against station specific security requirements. The NRSP stipulates specific bin and fixing types for use in stations.

5.14.2 Design and Security Considerations

Rubbish bins may be used to conceal explosive devices, with bins made of metal, concrete or plastic potentially adding to blast fragmentation. The most secure rubbish bin design is a clear plastic sack suspended from a metal hoop sack holder with integral bungee straps to secure the plastic sack. They should not have a lid, unless rubberised. Where rubbish bins are provided, they should contrast visually with the background. It is recommended that the top is 1300 mm above ground level, with a recommended opening of 750–900 mm above FFL.

5.14.3 Other Bin Types

1100L bins should be provided on platforms for the purposes of train servicing. They should avoid obstructing pedestrian flows and in a clearly marked area, preferably behind a barrier/fence. These bins should be securely locked shut when not in use.

Newspaper bins should be located in the same areas, although not adjacent to, general rubbish bins where possible to avoid them being used as rubbish bins. They should be located where they are least likely to cause visual clutter or obstruct pedestrian flows.

Coffee cup recycling bins, with separate bags for lids, liquids, and cups are useful for station users who are often unaware of how/where to correctly recycle cups. These bins should be provided on concourses, near waiting areas, and adjacent to, but not obstructing, busy pedestrian routes to encourage use. In some locations separated recycling bins may provided but this should be discussed with station maintenance teams and project security advisors.

Bins should not overflow or become so full that thorough checking of the contents becomes difficult. Bins located in Red zones should be emptied when they reach 50% capacity

Standards Reference
DfT Design Guidance for Local Authorities (2017)
Reducing security vulnerabilities at stations
SIDOS (2021)
National Railway Security Programme
DfT: Security In the Design Of Stations

Image 5.33
Seggregated bins at Glasgow Queen Street.

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5.15 Lost Property

At many managed stations, the processing of lost property is managed by the same company that operates left luggage services (currently the 'Excess Baggage Company'). Where this is not the case, the Train Operator handles lost property and misplaced items are redirected to larger terminus stations, and then onto holding facilities after a set period of time. Passengers are usually required to travel to holding facilities to collect their items, regardless of where they lost them.

Where lost property services are provided in a station, they should be clearly identified on wayfinding throughout the station. Lost property services should not be combined with left luggage, however, it may be useful for station users to provide such units adjacent to one another, particularly if operated by the same external company.

Signage should be provided at all stations to inform station users in the event that they lose belongings, with website and contact details for the relevant services depending on the operator. Lost property signage should be provided with other non-critical station information.

For operational considerations, see 'Lost Property' in Network Rail's Station Toolkits.

Image 5.34
Restored historic station facade, Manchester Victoria

Station Amenities & Facilities
Non-Public Facilities

6

Non-Public Facilities
6.1 Station Receptions

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6.1.1 Station Receptions

Station receptions operate as the main sign-in and information point for contractors and authorised visitors. They are a non-passenger facility and while they should be accessible and in a location that is relatively easy to find, their location should be more discrete than ticket offices and information desks, to discourage passengers from using them as information points.

6.1.2 Design Considerations

It is important for station receptions to be fully accessible and located on step-free routes, preferably at concourse level, so that they can be used by station users with disabilities. Within reception areas, seating and space for all users including those in wheelchairs should be provided and waiting areas should be spacious enough for mobility scooters to turn.

Reception desks should be suitably sized and equipped for staff to work with ease. The number of staff workstations will be determined by the size of the station, though in all but the largest stations reception desks catering for two staff workstations are likely to be sufficient. Counters should be fully accessible and cater for wheelchair users and incorporate induction loops and repeater speakers if PA announcements cannot be easily heard.
A screen should be provided within the reception area to allow visitors to watch induction videos. Where space allows in largest stations, a separate room may be provided adjacent to the station reception for contractor/visitor induction briefings, to avoid congestion in the main reception area.

The layout and equipment on the staff side of the reception will largely be determined by the Operator with primary responsibility for management of the station.

Station receptions should be visibly covered by CCTV for the safety of staff and station users.

Image 6.1
Station Reception, London Bridge Station

Standards Reference
Station Wayfinding Design and Assurance Procedure NR/L2/CIV/150

NR Guidance Suite Reference
Wayfinding Design Guidance NR/GN/CIV/300/01

Non-Public Facilities
6.2 Staff Accommodation

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6.2.1 Back of House Environment

Staff satisfaction is clearly associated with the ability to deliver the best customer experience. The back of house working environment should therefore support the well-being of its occupants in addition to fulfilling functional requirements. Staff areas should be protected from unauthorised access and appropriate access control systems should be incorporated.

To maximise inclusion and avoid unnecessary and costly retrofits, inclusive design considerations should be considered as early as possible when designing new (or refurbishing existing) back-of-house spaces. Natural daylight and good ventilation have well-being benefits and back of house accommodation should avoid fully-internal, occupied spaces where possible.

The spatial and functional requirements for back of house facilities will be highly dependent on the needs of individual stations and will be primarily determined by the Train Operator, though in larger stations independent accommodation for maintenance contractors and train crews may also be required.

6.2.2 Offices

Offices and control rooms should be designed to be operational 24/7, 365 days a year. Individual rooms should be designed in accordance with BS8300-2:2018 to be as inclusive and accessible as possible.

For further guidance on back of house offices, including Station Control Rooms (SCR), see section 4.9 of NR/GN/CIV/100/02 'Station Design Guidance'.

6.2.3 Mess Rooms

Staff mess facilities should be located wherever staff are based, and close to staff changing facilities and WC's. Mess facilities and areas for rest should be fully accessible, with sufficient space for wheelchair users.

Where accessible WC facilities are accessed via the mess room, a lobby should be provided affording greater privacy and dignity to all.

6.2.4 Staff Changing Facilities and WC's

Staff in certain roles should have access to changing facilities, which may also require associated WC's, showers, lockers, and changing rooms depending on the circumstances. Facilities should be divided into female and male areas. Equitable provision should be made for people with disabilities in all instances, and should include a minimum of one unisex accessible facility.

Staff changing facilities should be designed in accordance with Section 18 of BS8300-2:2018 and follow the design guidelines in 2.7.2.2 of NR/GN/CIV/300/04 'Inclusive Design Compliance'.

Image 6.2
Staff Facilities (BOH), Reading Train Crew Depot

NR Guidance Suite Reference

Workplace DNA
R_GN_CIV_400_05_Workplace-DNA
Maintenance Delivery Units
NR_GN_CIV_400_04_Maintenance_Delivery_Units

Non-Public Facilities
6.2 Staff Accommodation

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6.2.5 Duplication of Facilities

Where significant numbers of staff and/or contractors work in a station, changing and WC facilities for Network Rail and/or TOC staff should be separate to facilities for contractors. In all instances facilities should be located close to other relevant areas, e.g. driver/conductor facilities as part of a train management suite should be located close to trains.

Train cleaning staff require a separate mess room, WC's, showers, lockers, and storage space, preferably located on platforms or near to trains as cleaning staff carry heavy containers. Cleaner's facilities should not be shared with other staff.

Facilities may additionally be duplicated in large stations where access is made difficult by distance or change in level, or in secure areas of the station such as the secure suite.

For further guidance on staff and operations facilities, including indicative space planning, see section 4.9 of NR/GN/CIV/100/02 'Station Design Guidance'.

British Transport Police (BTP) Offices require separate consideration and are outside the scope of this guidance manual.

Standards Reference
Access to and use of buildings, Volume 2: Buildings other than dwellings (2015)
Approved Document Part M
Design of an accessible and inclusive built environment - Part 2: Buildings - Code of Practice (2018)
BS 8300-2:2018, 18, 19
Control Room Design and Specification
RT/E/S/24017

NR Guidance Suite Reference
Inclusive Design Compliance
NR/GN/CIV/300/01
Public Toilets In Managed Stations
NR/GN/CIV/200/04

Image 6.3
Unobstucted views assist wayfinding, Glasgow Queen Street

Station Amenities & Facilities
Amenities

7

Amenities
7.1 Amenities Introduction

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Image 7.1
Simplified terminus station diagram showing placement of amenities

7.1 Amenities Introduction

Station amenities improve the comfort and convenience of travel for passengers. Retail, advertising, cash machines and left luggage also provide important revenue streams for Network Rail which help fund the railway.
The scale of provision may vary between station types, but most stations will include these amenities in some form. The diagram on the left shows a simplified, large terminus station with the more common amenities located to best-suit passenger convenience and, where relevant, provide commercial income streams.
Amenities include:

· Retail
· Advertising
· Left Luggage
· Multi-Faith Prayer Rooms
· Water Fountains
· Charging Points
· Vending Machines
· Cash Machines
· Smoking Areas
· First Class Lounges

Amenities

7.1 Amenities Introduction

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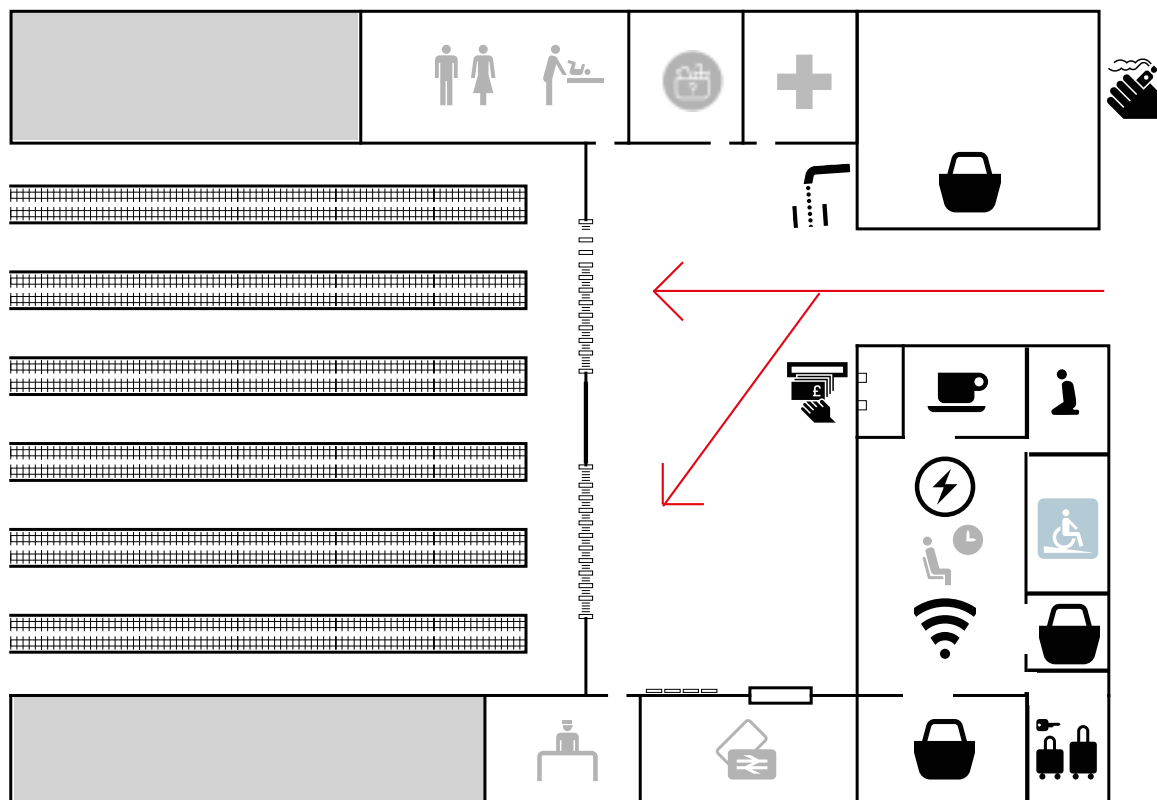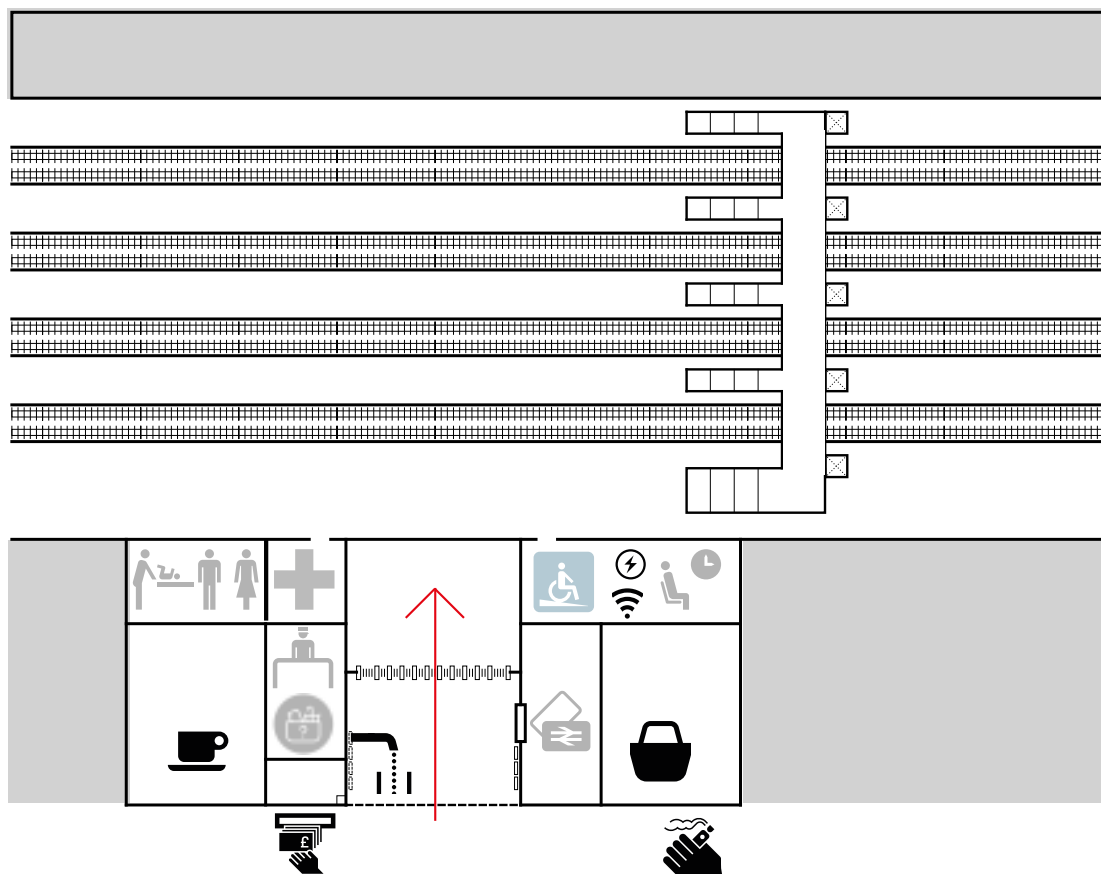The diagram on the left shows a simplified, medium-sized through station with amenities located to suit passenger movement and convenience.

Image 7.2
Simplified through station diagram showing placement of amenities

Amenities
7.2 Retail

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7.2.1 Retail

Revenue generating opportunities (e.g. retail, offices, advertising) can create significant additional funding streams to support delivery and operational costs. Implementation of retail opportunities should be designed to complement rather than compromise station operations and core passenger functions.

A good mix of retail operators is also an important passenger amenity providing places for station users to purchase food and drink, visit the chemist and a newsagent, to have new keys cut or shoes mended. At smaller stations, footfalls are lower, the mix of operators will be smaller and retail operators may only function during peak periods, but these still provide a welcome facility for the travelling public. Increasingly there is customer interest in co-worker space at stations, where people can rent serviced desks on a flexible basis and this can be particularly suitable in locations with lower footfalls.

Opportunities for social enterprise outlets, community and market space, and temporary retail pop-ups are described in 3.6 NR/GN/CIV/100/02 'Station Design Guidance'.

7.2.2 Retail Location and Provision

Retail amenities should be located principally on concourses, with food and beverage units to be located on platforms only where platform widths allow. The provision of retail units should be based on local context, demand, and function. Station users are primarily focused on convenience, therefore where retail is provided it should be located adjacent to, but not conflicting with, key pedestrian routes.

The type of retail provided will also vary depending on station constraints and user needs, with large managed stations likely to incorporate retail outlets on key thoroughfares as well as in concourses. Stations should aim to provide a range of food and convenience retail outlets that cater to a diverse range of station users.

The location of seating, waiting areas, and other station facilities can be utilised to encourage longer dwell times in and around retail areas. This also helps to prevent facilities and amenities from being positioned in isolated locations, encouraging use and social interaction. However this should be planned carefully to avoid conflict with primary desire lines and passenger flows.

7.2.3 Design Considerations

Station frontages can often be better activated through carefully designed retail displays and signage, creating a comfortable and welcoming environment for station users. The design and location of retail units should be sensitive to existing heritage constraints.

Image 7.3
Elegant integration of retail and historic rail structures at London Bridge.

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Where possible, zones for retail uses and food and beverage should be integrated into station designs to provide cohesion, both architecturally and functionally (e.g. retail arcades at London Bridge).

Retail frontages and signage should avoid conflict with wayfinding information or customer information screens. Retail signage should be integrated with existing architecture where possible and be located at a consistent datum, visually separated from other advertising, wayfinding, and station information. Advertising and retail signage should generally be placed parallel to pedestrian flows so that is differentiated from station wayfinding which is predominantly oriented to be perpendicular to primary desire lines.

Transparency to retail frontages should be maximised where architecturally appropriate to provide animated frontages facing the station. However in higher risk category stations, designers should also consider blast implications and early engagement with security advisors is likely to be necessary. Where roller shutters are used, these should be of consistent appearance within a station.

Fire safety and detection should also be considered early in the design process so that fire detection in retail units, particularly those serving food, do not lead to unnecessary closure of the station.

The construction of retail units should also provide appropriate fire and smoke separation. Early engagement with a fire engineer or Network Rail fire officer should be encouraged so that retail provisions do not compromise the fire safety of the station.

In larger stations, servicing routes, vehicle access and loading areas, and retail stores should also be considered early in the design process so that retail servicing is efficient and does not conflict with passenger flows and access routes.

For further guidance, see 4.8 'Planning for Retail' in NR/GN/CIV/100/02 (Station Design Guidance). For inclusive design considerations, see 2.2.7 'Retail and Commercial' in NR/GN/CIV/300/04 (Inclusive Design Compliance).

Additionally, NR/GN/CIV/200/06 'Retail Design Manual for Stations' will take precedence over this guidance manual when published in 2022.

Image 7.4
Retail design considering heritage constraints, Glasgow Central

NR Guidance Suite Reference
Station Design Guidance
NR/GN/CIV/100/02
Retail Design Manual for Stations
NR/GN/CIV/200/06

Amenities
7.3 Advertising

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7.3 Advertising

Advertising provides significant commercial revenue stream and is an important element in funding the UK's railway. However it also presents a potential conflict with wayfinding and station orientation and can lead, when badly located and poorly managed, to visual clutter. Commercial opportunities need to be balanced with essential railway operations and should not compromise wayfinding signage or occupy space necessary for passenger movements.

Project teams working on larger stations should be encouraged to engage with Network Rail's commercial revenue representatives early in the design process to identify suitable sites for advertising are provided as an inherent part of the design, avoiding the risk of ad-hocadverstising which can significantly compromise design quality.

Advertising should be located in areas with high footfall, such as on concourses and circulation routes, but avoiding passenger decision points and distinct from wayfinding signage. The best balance between advertising revenue and an uncluttered station environment is usually achieved by providing larger digital and / or illuminated advertising panels, well located and integrated with the overall design of the station environment. By contrast, large numbers of small advertising posters attract much lower revenue and make the station environment feel uncoordinated.

Establishing a consistent mounting height and panel / screen size creates coherence throughout the station.

Where escalators are enclosed or adjacent to walls, advertising may be placed alongside escalators as a digital ribbon installed flush with wall cladding. Free-standing advertising boards should generally be resisted but where these are unavoidable, they should be carefully located to avoid conflict with pedestrian flows and key station sightlines.

The location of advertising should not adversely impact pedestrian flows, and in particular should not obstruct entrances or impede movement along platforms.

Advertisements should not be combined with wayfinding or rail information.

Image 7.5
Well composed and thoughtfully located adverstising boards at Reading Station.

Standards Reference
Station Wayfinding Design and Assurance Procedure NR/L2/CIV/150

NR Guidance Suite Reference
Wayfinding Design Guidance NR/GN/CIV/300/01

Amenities
7.4 Left Luggage

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7.4.1 Left Luggage

Most managed stations provide left luggage units for the safe and secure storage of passenger belongings. The operation of left luggage services is contracted to an external company (currently the 'Excess Baggage Company').

7.4.2 Design Considerations

With more specific spatial and security requirements than typical retail units, left luggage units should be considered a more permanent amenity than other commercial spaces susceptible to frequent change.

Left luggage units should be provided on the main concourse, preferably near to the exit from platforms and locally grouped with other facilities and amenities such as waiting areas and retail. Left luggage units that also incorporate the sale of luggage should be considered where space allows, as this can improve the unit's external appearance alongside other retail offerings and is commercially beneficial.

Consideration should given to busy periods where queues may extend onto station concourses. The location of left luggage units should therefore balance visibility and accessibility against the likelihood of queuing interfering with key thoroughfares. Staff presence or a queuing system may be required to maintain pedestrian flows and demonstrate control over queues.

Wayfinding should make clear the provision and location of left luggage services, noting that left luggage is frequently used by leisure travellers who may be unfamiliar with a station and its layout. Clear advertising of the service should be present, online at station websites, and within the station domain with accurate wayfinding from all entry points to the unit entrance.

Spatial provision should be made for all equipment required within left luggage units, including, but not limited to: security screening equipment, luggage scales, storage racks, reception and sales desks. Units should be adequately sized to allow persons of reduced mobility, including wheelchair users and those with large baggage, to move freely.

CCTV should cover all extents of the unit, including the entrance and storage areas.

The opening hours of left luggage units should be extended as long as possible, to provide users with as much accessibility and flexibility around the service as possible.

Left luggage units should be designed in accordance with BS8300-2:2018 so that they are inclusive and accessible as possible. For operational considerations, see 'Left Luggage' in Network Rail's Station Toolkits.

Image 7.6
Combined left luggage and luggage retail, Paddington Station

Amenities
7.5 Multi-Faith Prayer Rooms

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7.5.1 Multi-Faith Prayer Rooms

Multi-faith prayer rooms provide a safe environment for passengers and staff to observe their religion. Prayers may be said by different faith groups and prayer rooms should be available to all faith groups whilst fulfilling the specific requirements of Wudu ablution. Equitable provision should be made for people with disabilities in all instances.

The provision of multi-faith prayer rooms should be considered on an individual station basis and based upon a Diversity Impact Assessment (DIA), considering factors such as station size, existing facilities, and passenger demographics.

7.5.2 Design Considerations for Prayer

The design of multi-faith prayer rooms in transport environments such as airports, service stations, and rail stations typically follows the 'unity by exclusion' approach. This involves the use of neutral materials, an absence of architectural language, and simple spatial layouts so as to prevent a space becoming meaningful or symbolic in any inappropriate way.

Multi-faith prayer rooms should consist of either two rooms, or one room divided into two areas with two entrances to provide facilities for separate sex prayer.

Rooms should refrain from including architectural expression or decorative elements which may be construed as meaningful to any faith. Rooms should have a suitable degree of privacy and sound insulation. Privacy should be considered against station surveillance requirements, with CCTV to cover entrances as a minimum.

Within prayer rooms, seating should be provided in addition to a table or raised flat surface for items to be laid upon.

The direction of Mecca/Makkah should be indicated with rooms. Multi-faith spaces may be orientated towards Mecca only when this does not cause conflict with the layout of adjacent spaces or impact station operations.

Where possible, multi-faith prayer rooms should be located close to thresholds, near entrances or exits, not near retail units, and may be inappropriate to locate in close proximity to toilets. Where faith wash facilities (see overleaf) are located with other WC accommodation a clearly signposted route should be provided to multi-faith prayer rooms.

7.5.3 Wayfinding and Pictograms

In the absence of standard pictograms for multi-faith prayer rooms and faith washing facilities, the pictograms shown below should be used to identify and locate these facilities. Any subsequent revisions to Network Rail's Wayfinding Design Guidance (NR/GN/CIV/300/01) that incorporates pictograms for these types of facility are to supersede this guidance.
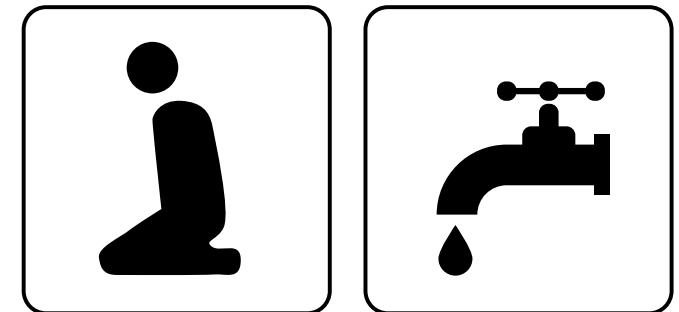
Image 7.7
"Multi-Faith Prayer Facility" and "Faith Washing Facility" Pictograms

NR Guidance Suite Reference
Inclusive Design Compliance NR/GN/CIV/300/04

Amenities
7.5 Multi-Faith Prayer Rooms

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7.5.4 Design Considerations for Ablution

If determined necessary following a DIA, ablution areas (faith washing facilities) should be located reasonably close to prayer facilities, with clear, signposted routes provided between the two. There should be separate sex ablution areas with separate entrances. This requirement should be thoroughly interrogated as stand-alone washing facilities impose significant additional maintenance and staffing obligations and raise issues of safety and security.

Where ablution areas are deemed necessary and are located away from attended WC's they should have an attendant present whenever the facilities are open for public use, particularly where wash cubicles are fully enclosed. Surveillance and privacy at entrances to, and within, ablution areas should be considered against station security requirements.

Faith washing facilities should be provided within full height compartments, rather than within cubicles that have gaps at floor and ceiling level. Materials, fixtures and finishes in washing facilities should be assessed against appropriate factors including customer experience, durability, and ease of cleaning, following the general guidance in NR/GN/CIV/200/04 (Public Toilets In Managed Stations).

Faith wash cubicles should include the following equipment as a minimum:

- Non-fixed or fold down adjustable height seat with arm rests which includes a horizontal grab rail adjacent to the seat
- Drop-down horizontal grab rail on the rear wall and an adjustable/detachable shower head for the washing of face, arms, and feet
- Sunken trough/footbath
- Low shelf (400-800mm above FFL) for dry storage of clothes
-

Any water for hand washing/showering should be no hotter than 43°C at outlet.

Though faith wash facilities are not explicitly covered in BS8300, the design of equipment, fixtures, and fittings within ablution areas and cubicles should be in accordance with BS8300-2:2018, 18 'Sanitary Accommodation'.

7.5.5 Cleaning and Maintenance

Cleaning regimes should be sensitive to the requirements and use of faith wash facilities at different times of day. Where cleaners/attendants are required to work in ablution areas whilst in use, they should be of the same sex as users of the facility wherever possible. In case of instances where this is not possible, a sign should be displayed at the entrance to the facility advising users that an opposite sex attendant might be present.

Image 7.8
Multi-Faith Prayer Room, Zurich Airport

Standards Reference

Access to and use of buildings, Volume 2: Buildings other than dwellings (2015)
Approved Document Part M, Section 5

Design of an accessible and inclusive built environment - Code of Practice (2018)
BS 8300-2:2018, Section 18

NR Guidance Suite Reference

Inclusive Design Compliance
NR/GN/CIV/300/04

Public Toilets In Managed Stations
NR/GN/CIV/200/04

Amenities
7.6 Water Fountains

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7.6.1 Water Fountains

Public water fountains in stations provide station users with free chilled drinking water, reducing reliance on disposable, single-use plastic water bottles. They are particularly valuable to passengers in warm weather as most stations do not have climate control in the primary public circulation areas. They should allow for bottle refill, but not incorporate bubbler taps which present an unacceptable cross-infection risk.

7.6.2 Design Considerations

Water fountains should be located in areas with high footfall and good natural surveillance to reduce the likelihood of vandalism. They should be located inside stations to minimise damage from the weather. They should not be located within or immediately adjacent to WC accommodation as this can be perceived as unhygienic. Existing mains water infrastructure within stations, heritage constraints, and the capacity of historic plumbing systems should be considered as these may determine practical locations for water fountains. The cost of extending any mains supply should be considered against the potential benefits of alternative water fountain locations.

Water fountains should be clearly indicated on wayfinding and location signage.

Bottle fillers should be sensor activated to aid those with mobility impairments and to minimise physical contact. They should be fitted at 900mm above finished floor level to enable access by wheelchair users. The point of water flow should not be below 900mm to avoid contact with animals.

They should be installed in accordance with the Water Regulations Advisory Scheme (WRAS).

7.6.3 Cleaning and Maintenance

Network Rail guidance requires all floor surface materials to achieve a minimum target rating of 40 SRV (slip resistance value) on the pendulum test when the material is both wet and dry. It is not required to vary the floor material where water fountains are installed provided that 40 SRV is achieved, however, consideration should be given to the cleaning and care regimes required in areas likely to be wet.

All water pipes and tanks should be properly insulated to avoid freezing and avoid the risk of legionella bacteria. Requirements for the design of water supply systems are given in BS 6700 and BS EN 806.

A regime for regular cleaning and maintenance of water fountains should be established.

Image 7.9
Water fountain at London Victoria.

Amenities
7.7 Charging Points

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7.7 Charging Points and Wifi

The integration of charging points is a relatively recent and welcome addition for station users who are increasingly reliant on electronic devices throughout their journey, including for essential functions such as ticketing and payment. WiFi provided in seating areas is also a singificant benefit for many station users.

There is an expectation amongst passengers that charging points will be available on new and refurbished trains, particularly long distance services, and this expectation often extends to the station environment. Charging points are provided in most managed stations, most often within concourse seating, but may also be found in waiting rooms, lounges or seating within retail areas.

Charging points and WiFi should be provided wherever station users are likely to wait, and all new internal seating at stations should include integrated charging points.

New seating from framework suppliers such as 'Green Furniture Concept' has been well received by station users, particularly where additional flexibility and functionality such as tables, charging points, and a variety of seating types for PRMs are provided. Framework suppliers are also able to provide charging points for installation onto existing seating, making costs less prohibitive than replacing existing seating.

Designers should consider that chargers placed underneath seats may be harder to reach for some people, and additional charging points should therefore be provided in more accessible locations such as within tables or seatbacks.

Wireless charging is increasingly prevalent, suitable for mobile devices with relevant inductors, and is the most convenient option for an increasing number of station users.

To maximise accessibility to all station users, a mixture of Type G sockets, USB ports, and wireless chargers should be provided. Where space is limited USB ports should be prioritised as the most flexible charging point. The provision of type G sockets should also be considered against station security requirements and operational considerations as these are the most open to misuse.

Signage should make clear the availability of charging points and WiFi where provided, using standard symbols for USB ports where relevant, alongside NR pictograms. Where Type G sockets are provided, signage should clearly state "For laptops, tablets, and mobile phones only".

The use of free-standing charging totems, as seen in some airports, is not recommended as these can clutter the concourse and contribute to crowding.

Image 7.10
Wireless charging point within GFC seating, London Victoria

Amenities
7.8 Vending Machines

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7.8 Vending Machines

Vending machines provide a convenient retail option for passengers, typically stocking basic food and beverages. They are a useful amenity at stations with limited, or no other retail options, or at larger stations when other retail is unavailable/closed.

Vending machines remain a relevant amenity in some locations, with Network Rail installing new vending machines in managed stations during 2020 for passengers to purchase face coverings, gloves, anti-bacterial wet wipes, and hand sanitiser. Vending machines may also provide an additional source of revenue for station or third-party operators.

Similarly sized amenities such as vending machines, telephones, and photo booths should be grouped together away from circulation routes. They should be located on a level area, along step-free routes, and be provided with a 1500 x 1500mm manoeuvring space that does not obstruct the minimum width of circulation routes. Vending machines should not impede movement along platforms, or restrict the passage of wheelchairs and prams.

All machines intended for self-service, including vending machines, should be designed to meet the requirements of a wide range of users, including disabled people.

Touch screens, for example, are inaccessible to many people with vision disabilities and payment controls on vending machines are frequently too high for wheelchair users. Controls should allow access from a seated or standing position, and be between 750mm and 1200mm above finished floor level. Items should be dispensed at 400mm or higher above finished floor level. Controls should also be designed for those with limited manual dexterity and vision or hearing disabilities.

On-platform vending machines should be located so that they do not obstruct passenger flows, obscure wayfinding / CIS signage or create unacceptable narrowing of platform space. They should avoid flat tops which present a risk of drug and weapon concealment.

Consideration should be given to electrical and servicing requirements, including the method by which the vending machine is restocked.

Image 7.11
Vending machines include face coverings, London Liverpool Street

Amenities
7.9 Cash Machines

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7.9 Cash Machines

Cash machines provide an important revenue stream for Network Rail and Train Operators as well providing a useful amenity for station users.

In most instances cash machines are located on the unpaid side of the ticket gates, though in larger stations they may be located within the gated area. Flush-mounted machines are preferable to free-standing units. These can be successfully integrated into station wall linings and beneath escalators or stairs, however they require a secure storage/lobby area at the rear to allow for cash re-stocking and maintenance. These require independent access which allows bank operatives to lock the door behind them. They also require security rated partitions running full-height to structural slab, to avoid the risk of theft from suspended ceiling voids. The size of the secure store will be provided by the machine provider, but are typically c1,500 wide by 2000mm deep.

Cash machines should be provided in a single location where possible, located parallel to key circulation routes. They should be located on a level area, along step-free routes, and be provided with a 1500 x 1500mm manoeuvring space that does not obstruct the minimum width of circulation routes.

Consideration should given to busy periods where queues may extend onto station concourses. The location of cash machines should therefore balance visibility and accessibility against the likelihood of queuing interfering with key thoroughfares.

Cash machines should be provided on concourses in areas with good natural surveillance to provide a degree of security. CCTV should cover all extents of cash machines with cameras to be made visible as a deterrent to crime. Studies indicate that users of cash machines feel safer in stations, with average withdrawal amounts higher than on the high street.

All machines intended for self-service, including cash machines, should be designed to meet the requirements of a wide range of users, including disabled people.

It is important that cash machines are suitable for use from a seated position, with controls between 750mm and 1200mm above finished floor level.

Image 7.12
Cash machines integrated flush with wall cladding, London Bridge

NR Guidance Suite Reference
Inclusive Design Compliance NR/GN/CIV/300/04

Amenities
7.9 Cash Machines

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The detailed dimensions and mounting heights of cash machines may vary between operators. The dimensions noted below are for guidance and specific operator requirements should be checked. Dimensions around machines for maintenance and operation are clear internal.
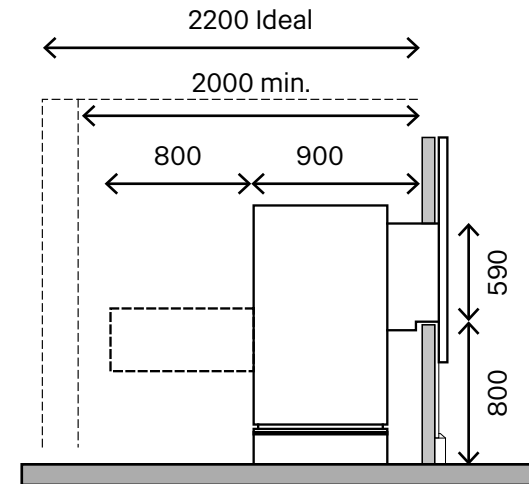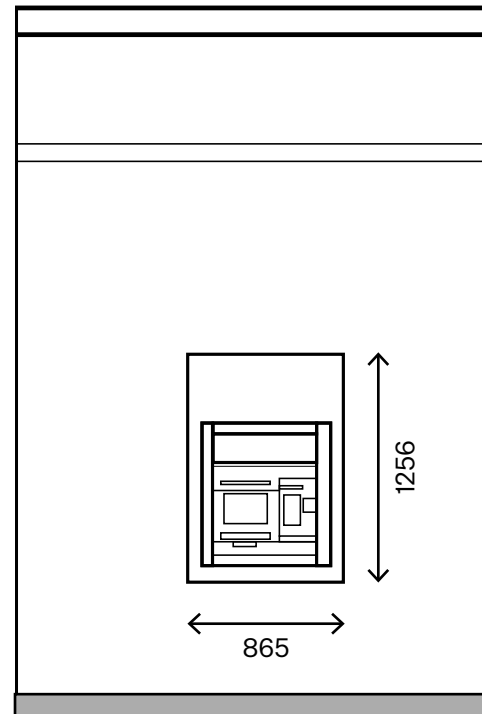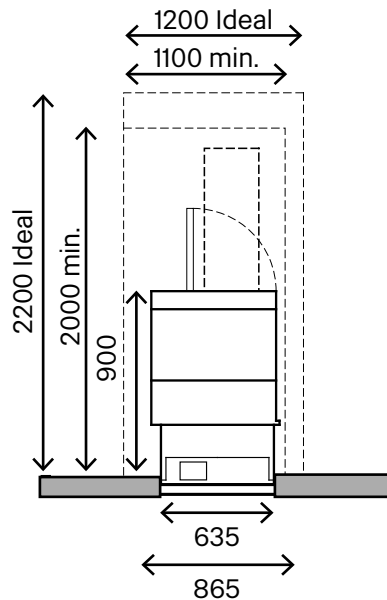

Image 7.13
Diagram of cash machine dimensions

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7.10 Smoking Areas

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7.10.1 Public Smoking Areas

Smoking within a station demise is not permitted, with smoking typically occurring around station entrances as the nearest, and often covered, permitted area. Where smoking is mentioned in this document, assume that this also applies to vaping as per Network Rail policy.

Designated smoking shelters and/or zoned areas can help to concentrate smoking in locations that do not obstruct or unnecessarily pollute the immediate vicinity around station entrances.

Designated smoking areas should be easily accessible and clearly visible from station entrances. If they are not conveniently located, station users are less likely to use them and more likely to smoke directly outside the station entrance. The preferred location of smoking areas will vary on an individual station basis depending on station constraints and pedestrian flows, however, they should be located within Network Rail's property boundary.

Smoking areas should be located away from air ducts, and any flammable or hazardous materials. Designated areas should be clearly marked by signage, posters, and floor markings, including directional wayfinding where relevant.

Ashtray bins/totems should be provided in smoking areas to reduce litter. The design of ashtray bins or totems should consider robustness, cleanability, and security so that cigarette butts cannot be retrieved by others once disposed of.

Where space allows, a shelter should be provided to encourage smoking in designated areas. This should be from the same family of products as other station shelters, such as those on platforms. Shelters should be within the NR property boundary, and not preclude access to other facilities or local businesses.

7.10.2 Staff Smoking Areas

Staff should also be provided with a designated smoking area away from main station entrances as uniformed staff smoking around a station entrance may not give a good impression to passengers.

Image 7.14
Glazed smoking shelter

Amenities
7.11 First Class Lounges

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7.11 First Class Lounges

First class lounges are provided and maintained by TOCs, with access usually restricted to first class ticket holders with a specific TOC. Provided at the discretion of the TOC, first class lounges are typically found at Category A/B stations, however, some smaller stations also include first class lounges which may or may not be staffed.

First Class Lounges are a useful amenity at larger stations as an enhanced waiting area for first class ticket holders, however, their provision should not be at the expense of other facilities or amenities that may be used by all station users. Providing multiple first class lounges in a station where multiple TOCs operate first class services is an inefficient use of space and should be avoided. It is preferable for TOCs to share, or permit access to, their lounges for first class ticket holders of other operators.

Where provided, the location of first class lounges should not adversely affect the flow of station users or restrict access to other facilities or amenities. As an example, the first class lounge at London Euston is positioned on the upper concourse level near to restaurants and away from essential facilities. The first class lounge is fully wheelchair accessible and step-free routes to other facilities and amenities are provided.

Image 7.15
First Class Lounge, London King's Cross.

Amenities
7.12 Legacy Items

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7.12.1 Legacy Items

As stations and user behaviours have changed over time, some 'legacy items' are declining in use. Removal of redundant items can make a major contribution to de-cluttering the station environment. However, some of these remain a Train Operator obligation and may be required even where use is now low. Determining which items are redundant will vary on an individual station basis, depending on local context and passenger demographics. An assessment of use should therefore be conducted prior to the permanent removal of any station facility, amenity, or other passenger facing infrastructure.

7.12.2 Public Telephones

At present public telephones form part of mandatory station access arrangements and at least one public telephone need to be retained, despite their declining use. However multiple pay phones are not required and are more often as an ad-hoc advertising opportunities than as a passenger amenity. Their removal as part of de-cluttering can have a significant beneficial impact on the station environment, though existing lease agreements should be taken into consideration prior to removal. This should also be discussed with Group Property before any actions are taken, and a station change application should be submitted External public telephones should be removed entirely as they are used predominantly as public toilets.

Discussions with the DfT are ongoing regarding the removal of public pay from station access agreements, though at the time of writing they remain a station requirement.

7.12.3 Photo Booths

Photo booths are provided intermittently at larger stations. Consideration should be given to the space required for photo booths and their provision should not be at the expense of other, more essential, facilities or amenities. They are well-suited to otherwise inefficient spaces, such as under escalators, and stairs. Where possible, similar sized amenities such as vending machines, cash machines, telephones, and photo booths should be grouped together away from primary circulation routes. T

7.12.4 Luggage Trolleys

Luggage trolleys continue to be used, even as station users adopt wheeled suitcases and luggage. In stations with a high proportion of long-distance travellers , particularly those used as gateways to airports, and/or stations with very long platforms, they remain an important passenger amenity.
Trolley points should be located where they are easily visible to those who need them, but will not obstruct other pedestrian flows. Trolley points should be provided at set down/pick up points for taxis and private vehicles. Where space allows, corrals should be provided at set down and pick up locations.

Image 7.16
Public Pay Phone, London Cannon Street

Image 7.17
Luggage Trolleys and Trolley Point, London Liverpool Street

Image 7.18
Platform escalators,
Reading Station

Station Amenities & Facilities
**Facilities & Amenities for Station Types,
Case Studies, Designer Toolkits**

A

Appendix A
Facilities & Amenities for Station Types

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The tables on the following pages set out the passenger facilities and amenities that should be provided at each station. This stand-alone document has been developed for a wider range of station functions and includes items that are outside the scope of this Guide, but all facilities and amenities are incorporated.

This tables are set out by station category, with the largest, most used stations (Category A) requiring many more amenities than the least used (Category F).

Note: This is a further development of the 'Station Categories Classification' found in Appendix B of the Station Design Guidance (NR/GN/CIV/100/02).

Note: Category C stations are sub-divided into C1 (city or busy junction) and C2 (other busy railheads). Category F stations are sub-divided into F1 (over 100,000 journeys per annum) and F2 (others).'

	No.	Type	Criteria per annum
A	28	National Hub	Over 2m trips: over £20m
B	67	Regional Interchange	Over 2m trips: over £20m
C	248	Important Feeder	0.5–2m trips: £2–20m
D	298	Medium Staffed	0.25–0.5m trips: £1–2m
E	695	Small Staffed	Under 0.25m trips: Under £1m
F	1,200	Small Unstaffed	Under 0.25m trips: Under £1m
Total	2,536		

Key

Mandatory PRM TSI Requirement	Highly Desirable	Desirable	Optional

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Appendix A
Facilities & Amenities for Station Types

Station Access/Station Egress

Facility	A	B	C	D	E	F
Interchange mode: Car/Bus/Taxi/Tram/Cycle/Tube	●	●	●	●	●	
Vehicle Pick Up/Set Down Areas	●	●	●	●	●	
Blue Badge Parking Area	●	●	●	●	●	
Level, Step-free Access	●	●	●	●	●	
Wi-Fi	●	●	●			
Advertising	●	●	●	●	●	

Forecourt

Facility	A	B	C	D	E	F
Landscaping (Trees, Planters, Shrubs)	●	●	●	●		
Weather Protected Walking Routes Between Modes	●	●	●	●		
Sheltered Waiting Areas for Buses and Taxis	●	●	●	●		
Locality Information	●	●	●	●	●	
Train Service Information	●	●	●	●	●	●
Station Identification Signage and National Rail Symbol	●	●	●	●	●	
Secure, Identifiable Boundaries	●	●	●	●		

Station Category

Facility	A	B	C	D	E	F
Appropriate Security Devices, e.g. CCTV	●	●	●	●	●	
Secure Cycle and Vehicle Parking in Closest Proximity to Station	●	●	●			
Post Box	●	●	●			
Public Art	●	●	●			
Cycle Hire	●	●				
Rail Replacement Bus Location	●	●	●	●	●	●
National Rail Symbol	●	●	●	●	●	●
Demarcated Accessible Route	●	●	●	●	●	
Passenger Help Point	●	●	●	●	●	●
Long Stay Car Park	●	●	●			
Short Stay Carpark	●	●	●			
Hostile Vehicle Devices	●					
Station Service Yard	●					
Maintenance Depot	●					
Contractors/Trade Counter	●					
Train Crew Parking	●	●				
Other TOC Parking	●	●	●			
Parking Payment Machines	●	●	●			

Station Category

Facility	A	B	C	D	E	F
Wi-Fi				●	●	
Advertising	●	●	●	●	●	

Station Entry and Ticketing

Facility	A	B	C	D	E	F
Concourse Building	●	●	●	●		
Station Reception	●					
Induction Loops	●					
Ticket Machines	●	●	●	●	●	●
Travel Centre — Advanced Travel, Business Travel and Information	●					
Timetables, Leaflets	●	●	●	●	●	●
Left Luggage	●					
Station Toilets (Unpaid Side)	●					
Changing Places Facility						
Station Clock	●	●	●	●	●	
Wayfinding Signs (Platform Signs/Exit Signs)	●	●	●	●	●	●
Summary Departures Board	●	●	●	●	●	●
Customer Information Screen	●	●	●	●		
Interchange Information	●	●	●	●	●	●

Appendix A
Facilities & Amenities for Station Types

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	Station Category					
	A	B	C	D	E	F
Trolley Management						
Customer Seating						
Mobility Assistance Point						
British Transport Police Office						
Wi-Fi						
Advertising						

Waiting and Commercial

	Station Category					
	A	B	C	D	E	F
Comfortable Waiting Areas and Facilities						
Waiting Lounges						
Range of Seating						
Parent Room Baby Change						
Help Point						
Cash Machines						
Food Retail						
Other Retail						
Goods Collection point						
Lost Property						

	Station Category					
	A	B	C	D	E	F
Programmable Event Space						
Statutory Signage						
Advertising						
Vending						
Station Wayfinding						
Evacuation Point Refuges						
Ticket Office						
Station Control Room						
Secure Room						
Business Lounge/ Office / Meeting Rooms						
Retail Storage						
Loading Bay						
Dog Spend Area						
Wi-Fi						
Advertising						

Platform Zone

	Station Category					
	A	B	C	D	E	F
Station Toilets (paid side)						
Automatic Ticket Gates						

	Station Category					
	A	B	C	D	E	F
Canopies and Shelters						
Lifts						
Help points						
Seating						
Tactile Paving						
Platform End Barriers						
Public Address System						
CCTV						
Lighting						
Yellow Lines to Platform Edge						
Vending Machines						
Retail						
Landscaping						
Waste Management						
Wi-Fi						
Advertising						

Station Amenities & Facilities
**Definitions,
Relevant Standards and Guidance,
Image Credits**

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Appendix B
Definitions

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AED	Automatic External Defibrilator
BS	British Standards
BTP	British Transport Police
CCTV	Closed-Circuit Television
CIS	Customer Information Systems
DfT	Department for Transport
EVCP	Electric Vehicle Charging Point
FFL	Finished Floor Level
GTR	Govia Thameslink Railway
LRV	Light Reflectance Value
NR	Network Rail
NRPS	National Rail Passenger Survey
NRSP	National Rail Security Programme
NTI	Next Train Indicator
NTS	Not To Scale
ORR	Office of Rail and Road
PA	Public address announcements
PRM	Persons with Reduced Mobility
RDG	Rail Delivery Group
RIS/OIS	Rail information
RSES	Register of Security Engineers and Specialists
RSSB	Rail Safety and Standards Board
SN	Special Notices
SOA	Summary of Arrival
SIDOS	Security In the Design Of Stations
SPT	Strathclyde Partnership for Transport
SRV	Slip Resistant Value
TfL	Transport for London
TOC	Train Operator Companies
TVM	Ticket Vending Machines
WC	Water Closet

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Appendix B
Applicable Legislation, Standards, and Guidance

A number of British Standards and UK Building Regulations are quoted throughout this document. Where British Standards are codes of practice, they take the form of guidance and recommendations.

Designs which claim compliance with relevant standards are expected to be able to justify any course of action that deviates from recommendations.

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Definitions of terms referred to in this document can be found in Clause 3 of BS6465-4:2010, and Clause 3 of BS8300-2:2018.

The following list is provided for reference only and is not exhaustive.

BS6465-1:2006	Sanitary installations – Part 1: Code of practice for the design of sanitary facilities and scales of provision of sanitary and associated appliances
BS6465-2:2017	Sanitary installations – Part 2: Code of practice - Space recommendations
BS6465-3:2006	Sanitary installations – Part 3: Code of practice for the selection, installation and maintenance of sanitary and associated appliances
BS6465-4:2010	Sanitary installations - Part 4: Code of practice for the provision of public toilets
BS8300-1:2018	Design of an accessible and inclusive built environment - Part 1: External environments - Code of practice
BS8300-2:2018	Design of an accessible and inclusive built environment - Part 2: Buildings - Code of practice
BS 9992:2021	Fire Safety in the design, management and use of rail infrastructure. Code of practice.
BS 9999: 2017	Fire Safety in the desing, management and use of buildings. Code of pratctice.
BS EN 115-1:2008 + A1:2010	Safety of escalators and moving walks

Design Guidelines & Specifications Managed Stations Wayfinding

Design Standards for Accessible Railway Stations, Version 04, Department for Transport and Transport Scotland, March 2015

Design Guidance for Local Authorities, Reducing Security Vulnerability at Stations, Department for Transport, 2017

Guidance for the Provision of WC facilities for Network Rail, STE-GN-BLDG-004, Issue 2, 2015

ISO 7001:2007 Graphical symbols – Public information symbols

Station Car Parking Good Practice Guide: RDG Good Practice Guide, Rail Delivery Group, 2018

PRM NTSN, Persons with Reduced Mobility - National Technical Specification Notice
Safety in The Design Of Stations (2021)
Department of Transport

Scottish Building Standards, Technical Handbook Non Domestic (2013)

Station Design Principles for Network Rail, BLDG-SP80-002,

Taxi Ranks at Major Interchanges - Best Practice Guidelines, Transport for London, 2006

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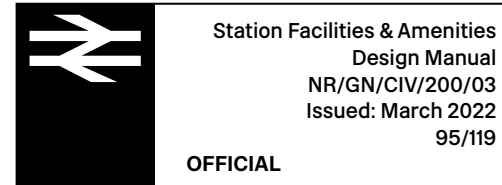
RIS 7016 INS Interface between Station Platforms, Track, Trains and Buffer Stops

RIS 7700 INS Rail Industry Standard for Station Infrastructure

RIS 7701 INS Automatic Ticket Gates at Stations

RIS 3703 Passenger Train Dispatch and Platform Safety

GE/RT8025 Protective Provisions for Electrified Lines (2001)

GI/GN7520 Lighting in Railway PremisesGC/RT5212 Railway Clearances

GC/RT5033 Buffer stops and Impact WallsGC/RT5633 Risk assessment of Buffer Stops

Wayfinding at Stations Good Practice Guide

Update to inclusive Mobility
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/
file/1044542/inclusive-mobility-a-guide-to-best-practice-on-access-to-pedestrian-and-transport-
infrastructure.pdf

Update to Guidance on Use of Tactiles
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/
file/1044541/guidance-on-the-use-of-tactile-paving-surfaces.pdf

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Network Rail Standards

	Our Principles of Good Design
NR/GN/CIV/100/02	Station Design
NR/GN/CIV/193	Standard Specification for New and Upgraded Lifts
NR/GN/CIV/196	Standard Specification for New and Upgraded Escalators
NR/GN/CIV/300/04	Inclusive Design
NR/GN/CIV/200/04	Public Toilets in Managed Stations
NR/GN/CIV/200/05	Vertical Circulation
NR/GN/CIV/200/06	Retail Design for Stations
NR/GN/CIV/200/11	Parking & Mobility at Stations
NR/GN/CIV/200/12	Third Party Funded Railway Car Parks
NR/GN/CIV/200/10	Public Realm Design
NR/GN/CIV/300/01	Wayfinding Design Guidance
NR/L2/ENV015	Environmental and Social Minimum Requirements for Projects

NR/L2/TEL/30130	Electronic Visual Customer Information Systems
NR/L2/OHS/00110	First Aid At Work
NR/L2/CIV/150	Station Wayfinding Design and Assurance Procedure

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Inclusive Design Guidance – Ticket Sales

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Network Rail commissioned Ideas Ltd in 2013 to produce a base design and prototype, based on previous installations that they delivered for South-Eastern Trains. A prototype of a single window position was provisionally installed in Paddington station for the Crossrail Programme who collected feedback from operators and accessibility consultants.

On this basis this base design described in the following pages was produced, including also reference to equipment that was utilised for the demonstration of the prototype. None of these items are compulsory and any proposal that can be demonstrated to perform equally well or better will be considered.

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Inclusive Design Guidance – Ticket Sales

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Contents

Integration **D**esign **E**rgonomics **A**pplications **S**olutions

Title:	**TICKET OFFICE DESIGN** Contents	Drg No.: **TOD-IDE-001**	Notes:		REVISIONS	
		Drawn: NTC			DD/MM/YY REMARKS	
Client:	**NETWORK RAIL**	Date: 15/12/2014				
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale:				

ideas

01844 355 474 ideas.ltd.uk/pwc
IDEAS LIMITED INFO@IDEAS.LTD.UK

IDEAS LIMITED, SANDERUM HOUSE, OAKLEY ROAD, CHINNOR, OXFORDSHIRE, OX39 4TW, UNITED KINGDOM

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Inclusive Design Guidance – Ticket Sales

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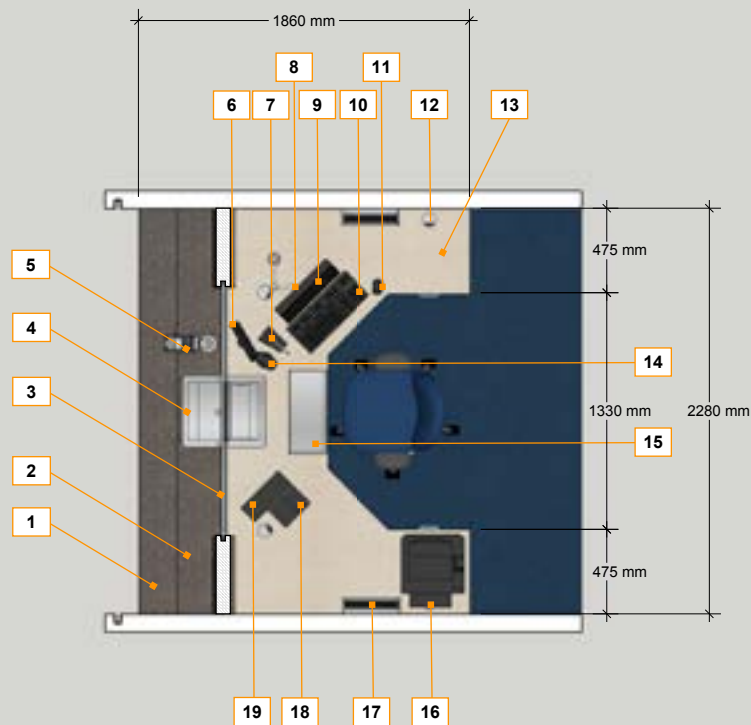
1. Lower counter (750H)*

2. Upper counter (950H)

3. Glass resistant to manual attack - Code: IDL-0117

4. DFA Cash Tray™ (dual height counter transfer tray) – Code: IDL-0115

5. Ergonomic chip & pin mount – Code: IDL-0116

6. Customer display

7. Staff microphone - Code: IDL-0120

8. Ergonomic monitor arm – Code: IDL-0118

9. Flat screen

10. Keyboard

11. Mouse

12. Cable grommets

13. Non-handed counter top (950H)

14. Scanner

15. Roll top cash drawer – Code: IDL-0119

16. Printer

17. Desk mounted power & data module – Code: IDL-0121
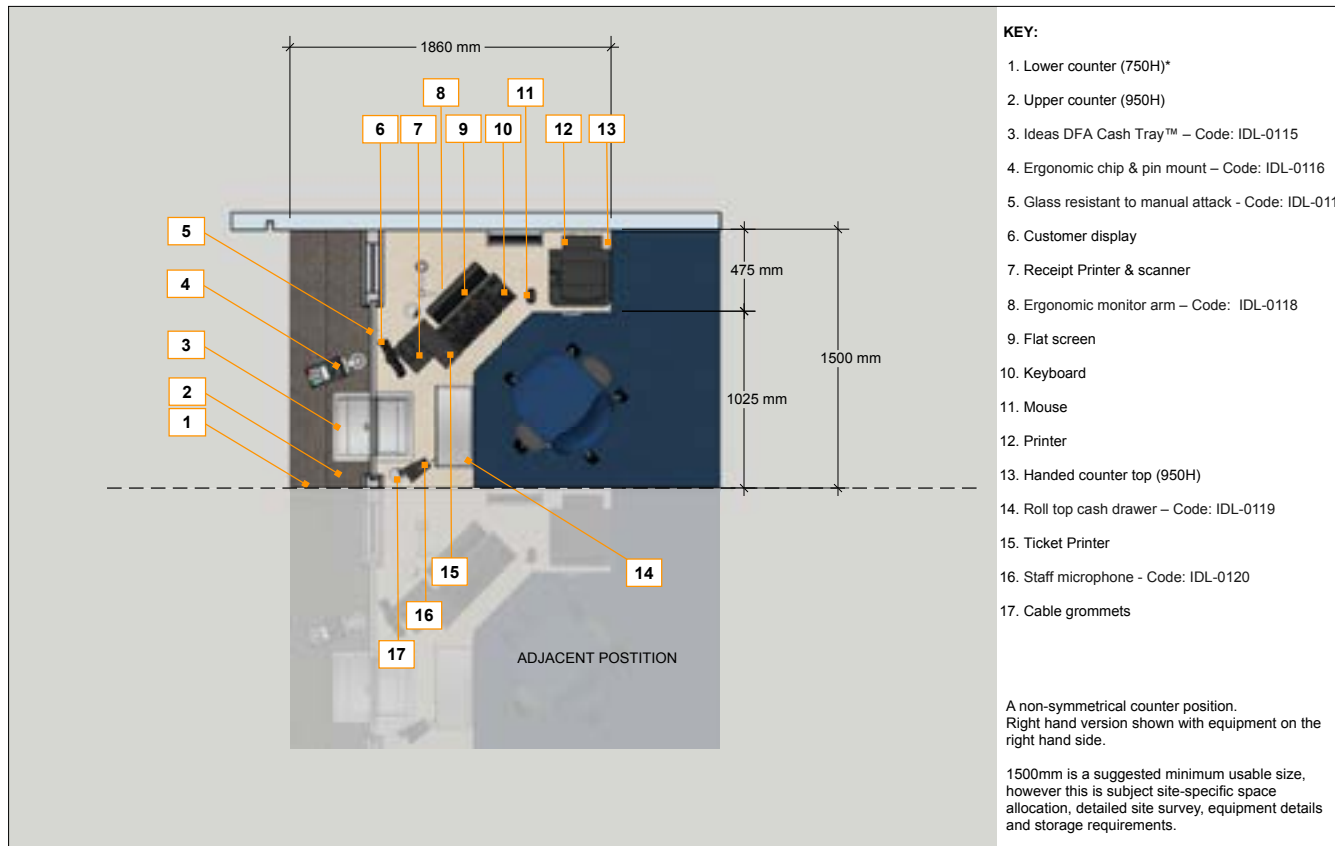
18. Receipt printer

19. Ticket printer

EQUIPMENT SIZES MAY VARY ACCORDING TO
TOC REQUIREMENTS

Dimensions on drawing: 1860 mm, 475 mm, 1330 mm, 2280 mm, 475 mm

Title:	TICKET OFFICE DESIGN Single Counter Position - Plan View	Drg No.:	TOD-IDE-002	Notes:
		Drawn:	NTC	
Client:	NETWORK RAIL	Date:	15/12/2014	* Lower counter - finished height at 750mm (the maximum permissible counter height above the floor is 760mm). Under counter minimum knee clearance is 700mm.
Project:	TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS	Scale:	1:20 @ A3 (Do Not Scale)	

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1860 mm

475 mm

1500 mm

1025 mm

ADJACENT POSTITION

KEY:

1. Lower counter (750H)*

2. Upper counter (950H)

3. Ideas DFA Cash Tray™ – Code: IDL-0115

4. Ergonomic chip & pin mount – Code: IDL-0116

5. Glass resistant to manual attack - Code: IDL-0117

6. Customer display

7. Receipt Printer & scanner

8. Ergonomic monitor arm – Code: IDL-0118

9. Flat screen

10. Keyboard

11. Mouse

12. Printer

13. Handed counter top (950H)

14. Roll top cash drawer – Code: IDL-0119

15. Ticket Printer

16. Staff microphone - Code: IDL-0120

17. Cable grommets

A non-symmetrical counter position.
Right hand version shown with equipment on the right hand side.

1500mm is a suggested minimum usable size, however this is subject site-specific space allocation, detailed site survey, equipment details and storage requirements.

Integration **D**esign **E**rgonomics **A**pplications **S**olutions

Title:	**TICKET OFFICE DESIGN** **Non-symmetrical version for restricted access**	Drg No.:	**TOD-IDE-003**	Notes:
		Drawn:	NTC	
Client:	**NETWORK RAIL**	Date:	15/12/2014	* Lower counter - finished height at 750mm (the maximum permissible counter height above the floor is 760mm). Under counter minimum knee clearance is 700mm.
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale:	1:20 @ A3 (Do Not Scale)	

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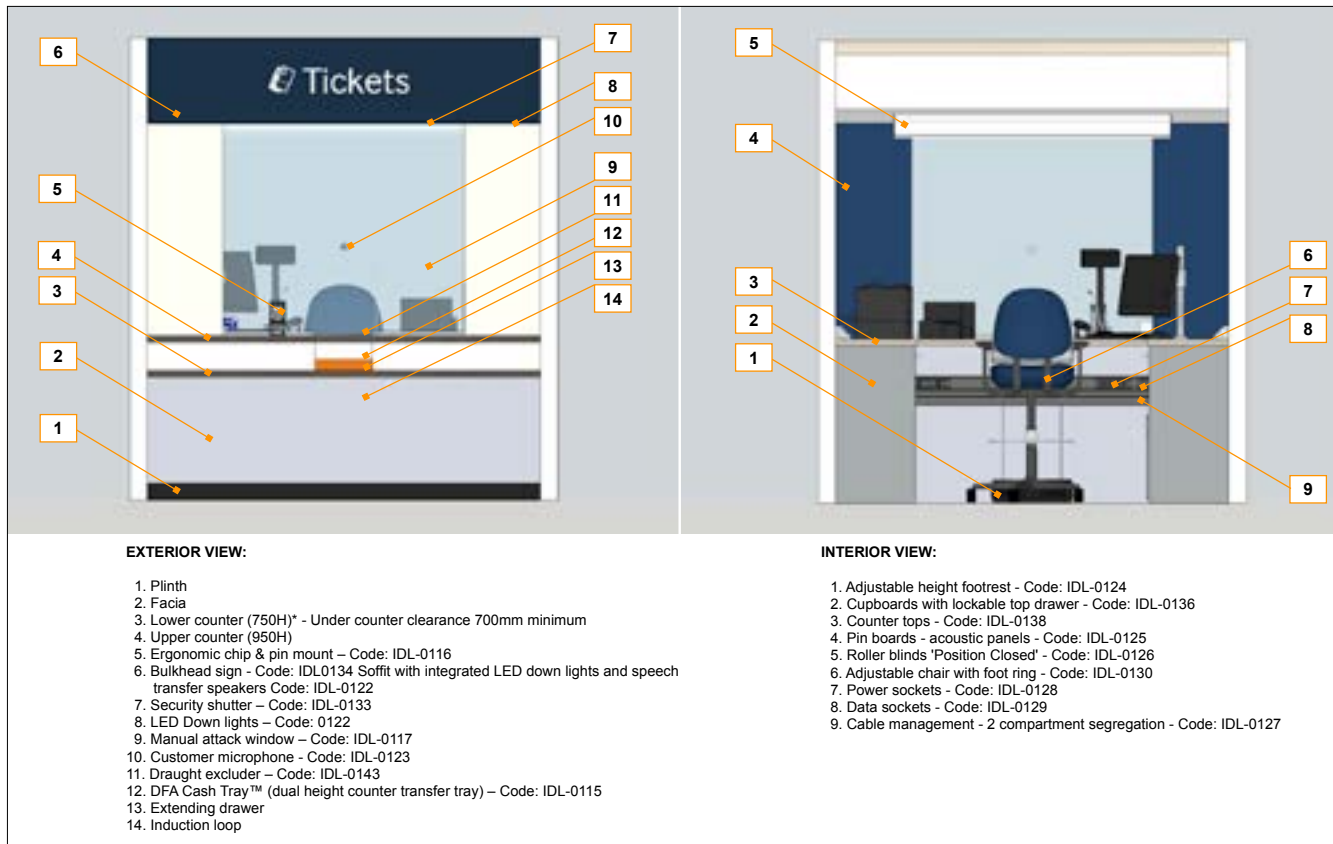**IDEAS LIMITED INFO@IDEAS.LTD.UK**

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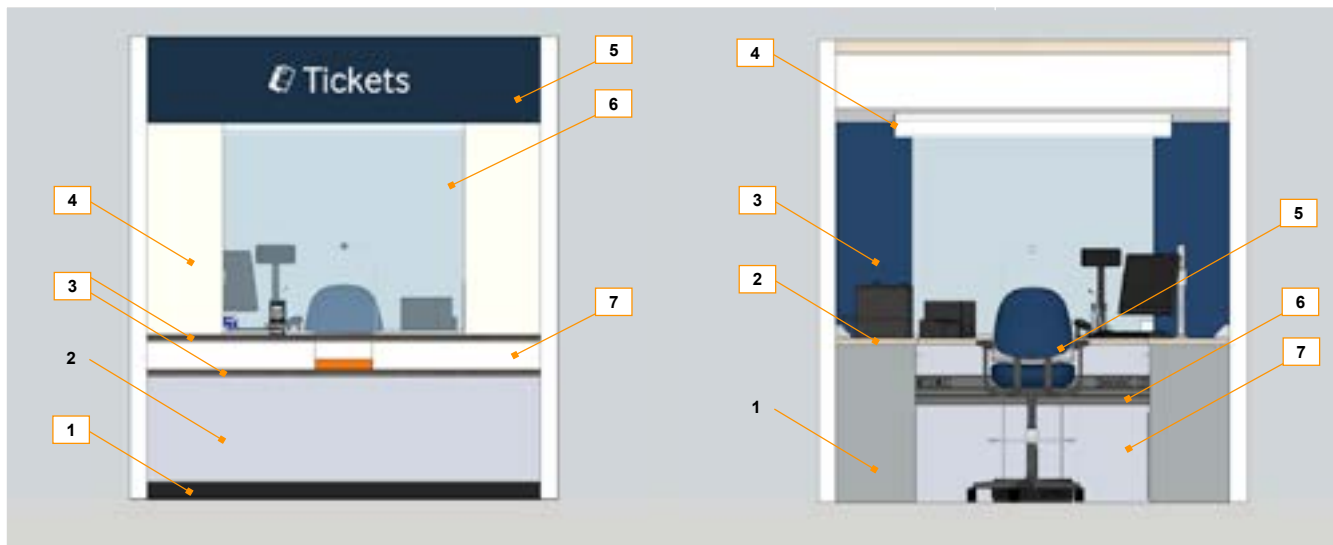NR/GN/CIV/200/03
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EXTERIOR VIEW:

1. Plinth
2. Facia
3. Lower counter (750H)* - Under counter clearance 700mm minimum
4. Upper counter (950H)
5. Ergonomic chip & pin mount – Code: IDL-0116
6. Bulkhead sign - Code: IDL0134 Soffit with integrated LED down lights and speech transfer speakers Code: IDL-0122
7. Security shutter – Code: IDL-0133
8. LED Down lights – Code: 0122
9. Manual attack window – Code: IDL-0117
10. Customer microphone - Code: IDL-0123
11. Draught excluder – Code: IDL-0143
12. DFA Cash Tray™ (dual height counter transfer tray) – Code: IDL-0115
13. Extending drawer
14. Induction loop

INTERIOR VIEW:

1. Adjustable height footrest - Code: IDL-0124
2. Cupboards with lockable top drawer - Code: IDL-0136
3. Counter tops - Code: IDL-0138
4. Pin boards - acoustic panels - Code: IDL-0125
5. Roller blinds 'Position Closed' - Code: IDL-0126
6. Adjustable chair with foot ring - Code: IDL-0130
7. Power sockets - Code: IDL-0128
8. Data sockets - Code: IDL-0129
9. Cable management - 2 compartment segregation - Code: IDL-0127

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Title:	**TICKET OFFICE DESIGN** **Exterior & interior elevations**	Drg No.: **TOD-IDE-004**	Notes:	
		Drawn: NTC		REVISIONS
Client:	**NETWORK RAIL**	Date: 15/12/2014	* Lower counter - finished height at 750mm (the maximum permissible counter height above the floor is 760mm). Under counter minimum knee clearance is 700mm.	
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale: 1:20 @ A3 (Do Not Scale)		

	DD/MM/YY	REMARKS
A	16 / 02 /15	Induction loop item number added.
B		--
C		--
D		--
E		--

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MATERIALS & FINISHES - EXTERIOR:

1. Plinth - Black polyester powder coated galvanised steel

2. Lower facia - Vitreous enamelled steel panels (9006 (79006SS3) - Semi Gloss)

3. Counters - Solid surface (Corian Canyon) - satin finish.

4. Side panels - Vitreous enamelled steel panels (708B15SS3-Semi Gloss)

5. Signage - Vitreous enamel steel panels

6. Manual attack security glass - Fire Resistant (CF628) - P8B/BR1 - 18.5 thick

7. Panel between counters: White - Compact grade laminate (Formica).

MATERIALS & FINISHES - INTERIOR:

1. Cupboards - High pressure laminae (HPL) bonded board (FR)

2. Counters - Solid surface (Corian Aurora) - satin finish

3. Pin boards (acoustic panels). Fabric wrapped Sundeala - (FR)

4. Roller Blinds - screen printed: 'Position Closed' (FR fabric)

5. Cash tray & cash drawer – polyesters powder coated steel

6. Cable Management - polyester powder coated steel

7. Lower facia - High pressure laminae (HPL) bonded board (FR)

I n t e g r a t i o n D e s i g n E r g o n o m i c s A p p l i c a t i o n s S o l u t i o n s

Title: **TICKET OFFICE DESIGN** **Materials & finishes**	Drg No.: **TOD-IDE-005**	Notes:	REVISIONS			
	Drawn: NTC			DD/MM/YY	REMARKS	
Client: **NETWORK RAIL**	Date: 15/12/2014	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.				
Project: **TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale: 1:20 @ A3 (Do Not Scale)					

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KEY:

1. Recessed shutter track

2. Security roller shutter - Code: IDL-0133

3. Soffit with integrated LED down lights and speech transfer speakers Code: IDL-0122

Note: The depth of a soffit with a security shutter is governed by this distance between the lower counter and the shutter track. It should be a minimum of 100mm to allow the shutter to clear the chip & pin arm if left in its lowest position.

The depth of a soffit without a security shutter would be site specific but it is recommended that the front face would be in line with the lower counter with soffit lights placed centrally.

4. Optional cash float drawer unit and storage unit for CPU/UPS equipment - Code: IDL-0137

5. Adjustable chair with foot ring - Code: IDL-0130

6. Optional CPU/UPS mobile unit - Code: IDL-0131

7. Supporting low wall with intruder protection and thermal insulation

8. Lower counter cantilevered from low wall structure using discreet metal brackets supporting a concealed metal frame within the counter construction to avoid bowing. Fixture of lower counter has to be able to support heavy human loads (and vandalism) without damage and permanent deflection.

* Subject to chip & pin arm extension distance but should not be less than 50mm

Labels in drawing: METAL FRAME, COUNTER DEPTH 570, 654 mm, 1250, 245, 950, 750, 220, 100 mm min.*

Integration Design Ergonomics Applications Solutions

Title:	**TICKET OFFICE DESIGN** Cross section	Drg No.:	**TOD-IDE-006**	Notes:	REVISIONS		
		Drawn:	NTC	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.	DD/MM/YY	REMARKS	
Client:	**NETWORK RAIL**	Date:	15/12/2014				
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale:	1:20 @ A3 (Do Not Scale)				

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Title:	**TICKET OFFICE DESIGN**		Drg No.:	**TOD-IDE-007**	Notes:	REVISIONS			
	3D visual - Rear perspective		Drawn:	NTC	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.		DD/MM/YY	REMARKS	
Client:	**NETWORK RAIL**		Date:	15/12/2014					
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**		Scale:	NTS					

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Title: **TICKET OFFICE DESIGN** 3D visual - Front perspective	Drg No.: **TOD-IDE-008**	Notes:	REVISIONS		ideas
	Drawn: NTC		DD/MM/YY	REMARKS	
Client: **NETWORK RAIL**	Date: 15/12/2014	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.			**01844 355 474 ideas.ltd.uk/pwc**
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LEG CLEARANCE UNDER COUNTER

1800 mm

4080 mm

1:20

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Title:	**TICKET OFFICE DESIGN** **Two workstation position**	Drg No.:	**TOD-IDE-009**	Notes:		REVISIONS		ideas
		Drawn:	NTC	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.	DD/MM/YY	REMARKS		
Client:	**NETWORK RAIL**	Date:	15/12/2014					01844 355 474 ideas.ltd.uk/pwc
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale:	NTS					IDEAS LIMITED INFO@IDEAS.LTD.UK

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2040 mm 1800 mm 1800 mm 2040 mm

SHUTTER WIDTH (IF REQUIRED) 3591 mm

1800 mm

SHUTTER WIDTH (IF REQUIRED) 3591 mm

1800 mm 1800 mm

SHUTTER WIDTH (IF REQUIRED) 5880 mm

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Title:	**TICKET OFFICE DESIGN** Adjacent 1800mm wide positions (with optional shutters)	Drg No.: **TOD-IDE-010**	Notes:		
Client:	**NETWORK RAIL**	Drawn: NTC	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.		
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Date: 15/12/2014			
		Scale: 1:25 @ A3 (Do Not Scale)			

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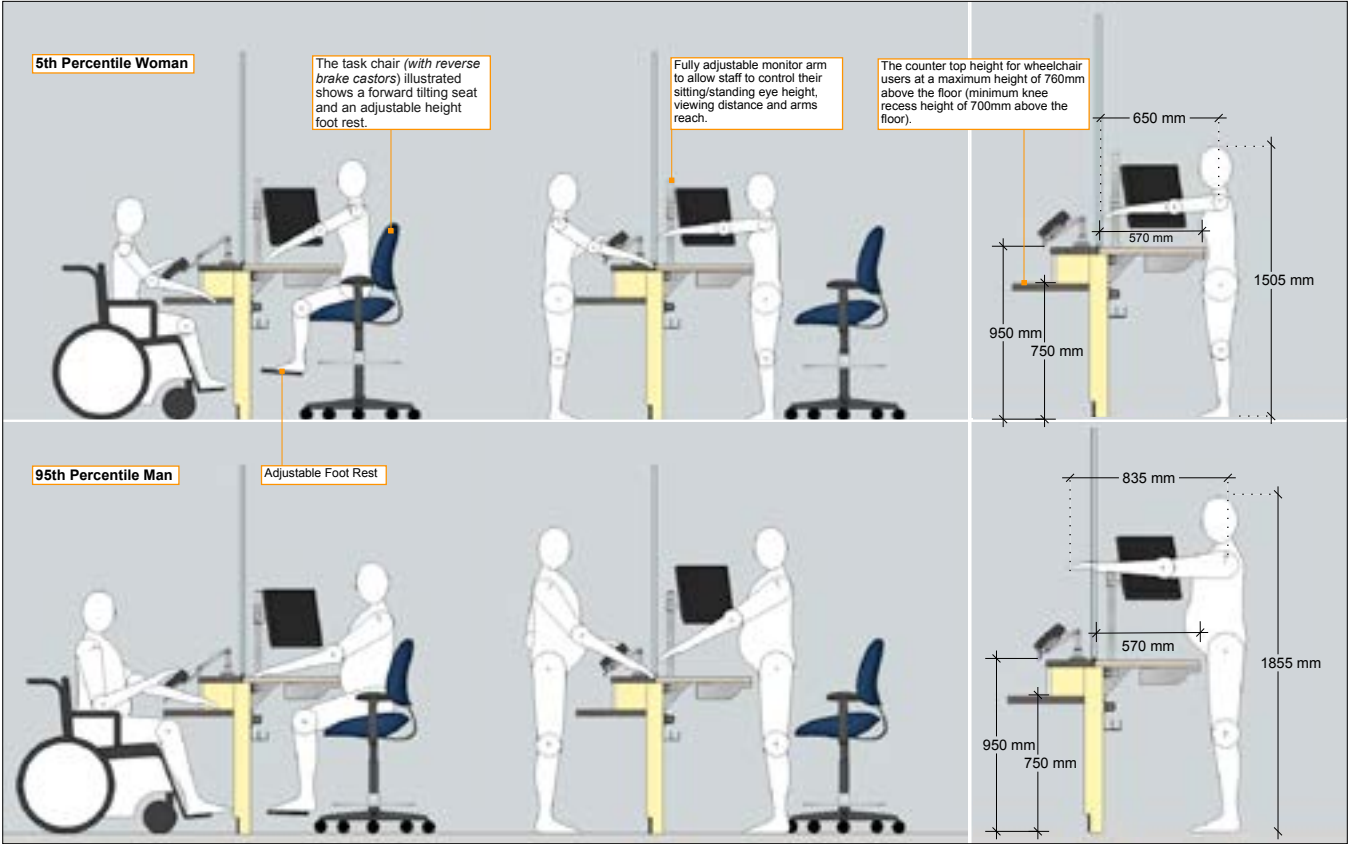Design Manual
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PANIC BUTTON

CUSTOMER
MICROPHONE
STEM

OPTIONAL
DIVIDER
SCREEN

DRAUGHT
EXCLUDER

GLASS PANEL

CLEAR VIEW
OF CASH TRAY
(WITH DRAUGHT
EXCLUDER REMOVED)

Integration Design Ergonomics Applications Solutions

Title:	**TICKET OFFICE DESIGN** Adjacent 1800mm wide positions - Perspective view
Client:	**NETWORK RAIL**
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**

Drg No.:	**TOD-IDE-011**
Drawn:	NTC
Date:	15/12/2014
Scale:	NTS

Notes:

It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.

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5th Percentile Woman

The task chair *(with reverse brake castors)* illustrated shows a forward tilting seat and an adjustable height foot rest.

Fully adjustable monitor arm to allow staff to control their sitting/standing eye height, viewing distance and arms reach.

The counter top height for wheelchair users at a maximum height of 760mm above the floor (minimum knee recess height of 700mm above the floor).

650 mm

570 mm

1505 mm

950 mm

750 mm

95th Percentile Man

Adjustable Foot Rest

835 mm

570 mm

1855 mm

950 mm

750 mm

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Title:	**TICKET OFFICE DESIGN** Ergonomic visuals	Drg No.: **TOD-IDE-012**	Notes:	Data: Pheasant, S. and Haslegrave, C.M. (2006). *Bodyspace - Anthropometry, Ergonomics and the Design of Work*. Florida: Taylor and Francis	REVISIONS	
		Drawn: NTC			DD/MM/YY	REMARKS
Client: **NETWORK RAIL**		Date: 15/12/2014				
Project: **TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**		Scale: NTS				

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5th Percentile Woman   FORWARD REACH AT COUNTER LEVEL   95th Percentile Man

555 mm

715 mm

1800 mm

1800 mm

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Title:	**TICKET OFFICE DESIGN** **Forward reach at counter level**	Drg No.: **TOD-IDE-013**	Notes:	Data: Pheasant, S. and Haslegrave, C.M. (2006). *Bodyspace - Anthropometry, Ergonomics and the Design of Work*. Florida: Taylor and Francis	REVISIONS
		Drawn: NTC			
Client:	**NETWORK RAIL**	Date: 15/12/2014			
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale: 1:10 @ A3 (Do Not Scale)			

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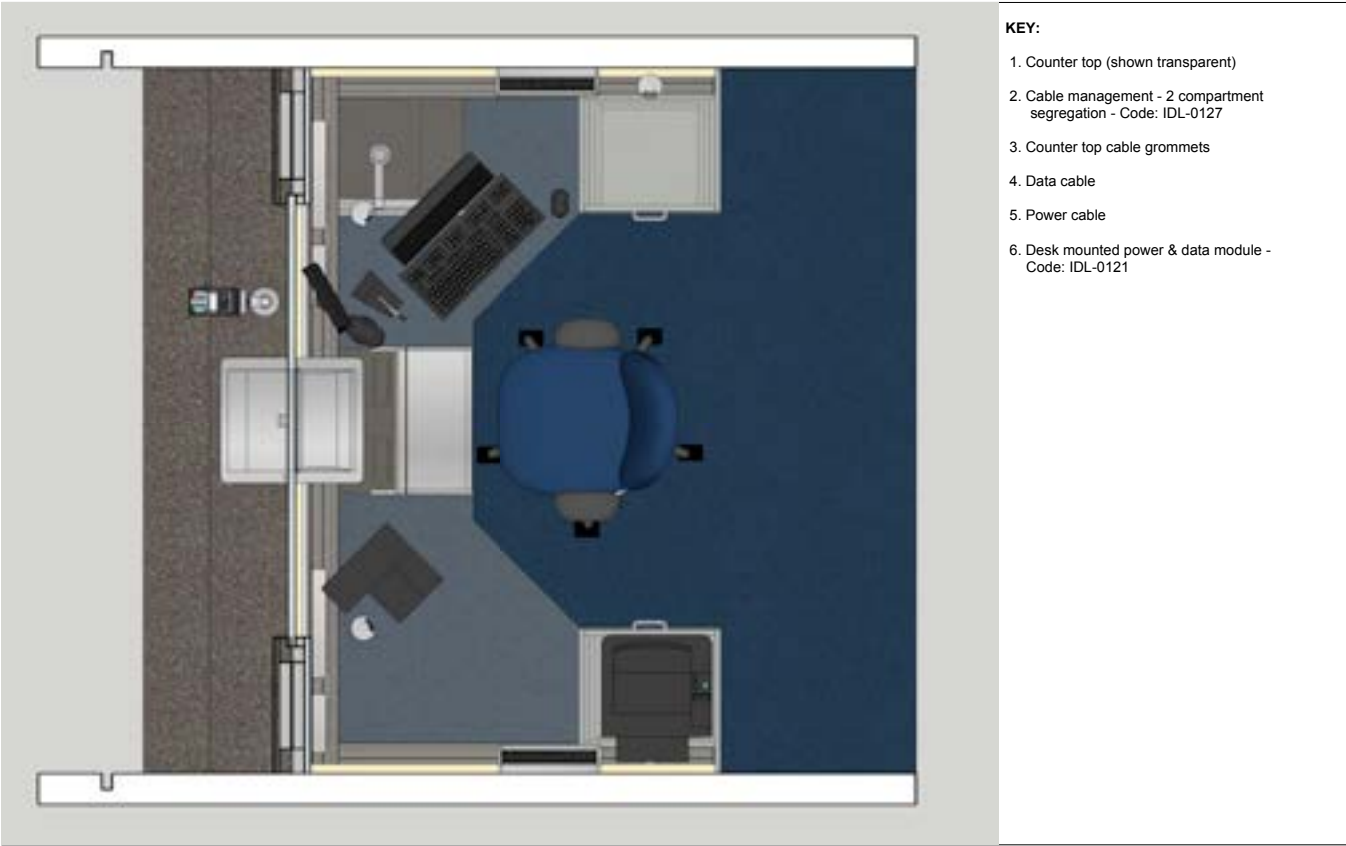
KEY:

1. Counter top (shown transparent)

2. Cable management - 2 compartment segregation - Code: IDL-0127

3. Counter top cable grommets

4. Data cable

5. Power cable

6. Desk mounted power & data module - Code: IDL-0121

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Title:	**TICKET OFFICE DESIGN** **Power & Data Distribution**	Drg No.: **TOD-IDE-014**	Notes:		REVISIONS			
		Drawn: NTC				DD/MM/YY	REMARKS	
Client: **NETWORK RAIL**		Date: 15/12/2014	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.	A		--/--/--	...	
Project: **TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**		Scale: NTS						

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KEY:

1. LED Downlighters:

   Inset LED down lights c/w diffuser (ZEP2-Fixed). Fire rated.

   In the illustrated configurations these lamps produce of the order of 500 LUX at counter level (recommended levels).

2. Soffit speech transfer speakers

SINGLE POSITION

800 mm   800 mm

MULTIPLE POSITIONS

900 mm   900 mm   900 mm   700 mm

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Title:	**TICKET OFFICE DESIGN** Lighting Levels	Drg No.: **TOD-IDE-015**	Notes:	REVISIONS		
		Drawn: NTC	It is important that the finished floor levels are the same levels both sides of the counter (internal and external) with no discrepancies, because the specified finished counter heights must be maintained.		DD/MM/YY	REMARKS
Client:	**NETWORK RAIL**	Date: 15/12/2014				
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale: NTS				

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Title:	**TICKET OFFICE DESIGN** Photographs - Design For All	Drg No.:	**TOD-IDE-016**	Notes:	REVISIONS	
		Drawn: NTC			DD/MM/YY REMARKS	
Client:	**NETWORK RAIL**	Date: 15/12/2014				**01844 355 474 ideas.ltd.uk/pwc**
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale: NTS				IDEAS LIMITED INFO@IDEAS.LTD.UK

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Title:	**TICKET OFFICE DESIGN** Photographs - Design For All	Drg No.:	**TOD-IDE-017**	Notes:		REVISIONS		
		Drawn: NTC					DD/MM/YY	REMARKS
Client:	**NETWORK RAIL**	Date: 15/12/2014				A		
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale: NTS						

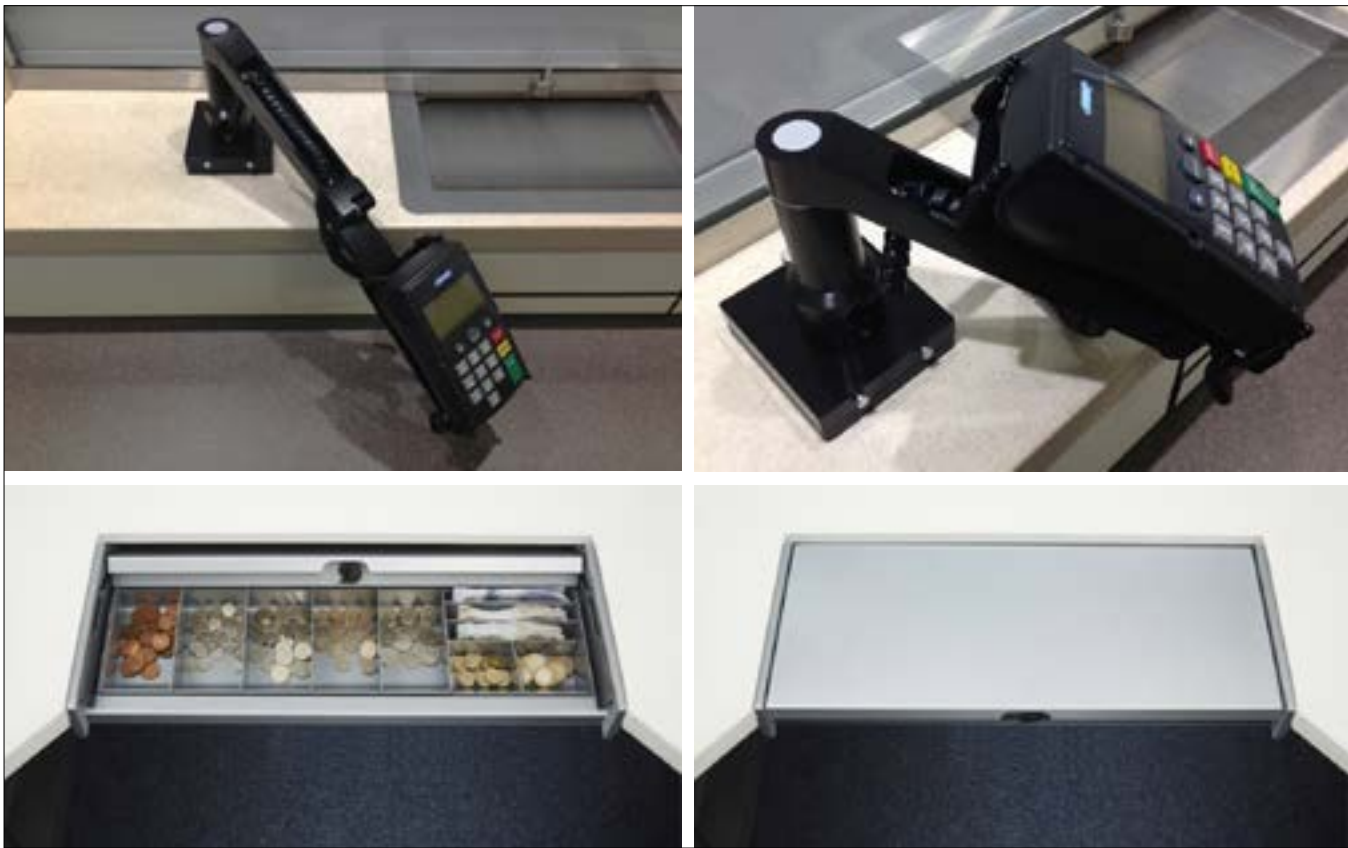© COPYRIGHT & DESIGN RIGHT IDEAS LIMITED 2015. DESIGN GUIDELINES ONLY - NOT FOR MANUFACTURE.

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Title:	**TICKET OFFICE DESIGN** Photographs - Extending Chip & Pin Arm and Cash Drawer	Drg No.: **TOD-IDE-018**	Notes:		REVISIONS		
		Drawn: NTC			DD/MM/YY		
Client: **NETWORK RAIL**		Date: 15/12/2014				REMARKS	
Project: **TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**		Scale: NTS					

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INVENTORY OF ITEMS AND MATERIALS/SUPPLIERS

Ideas Code	Item	Material / Supplier
IDL-0115	DFA Cash Tray Dual height transfer tray.	Ideas Limited.
IDL-0116	Ergonomic chip & pin mount.	Flat screen arms.
IDL-0117	Manual attack window.	Glass resistant to manual attack E356 P8B I Manual 8. Fire Resistant 18.5 thick ESG (Essex Safety Glass).
IDL-0118	Flat screen monitor arm.	Ergonomic monitor arm. Flatscreen Arms.
IDL-0119	Roll top cash drawer.	Polyester powder coated. Lockable. Ideas Limited.
IDL-0133	Security shutter.	Electrically operated security roller shutter. Key switch operated. Electric 1ph tube motor. Manual override. Galvanised perforated lath or solid lath. Powder coated finish. Fire rated option available. Shaw Security
IDL-0123	Customer microphone.	Speech transfer system. Contacta.
IDL-0124	Induction loop.	Induction loop. Contacta.
IDL-0138	Counter tops.	Counters - Solid surface faced MDF core. Solid surface finish - 500 Abralon - satin finish - minimal glare. Solid surface by - Corian (Dupont) MDF core - BS EN 13501 Euroclass B - S1, d0. FR (Flame Retardant). Euro Class B, Euro Class C. Class E1 board. MDF - Medite*

INVENTORY OF ITEMS AND MATERIALS/SUPPLIERS

Ideas Code	Item	Material / Supplier
IDL-0122	LED down light.	Aurora fire rated LED downlight - non dimmable C/w diffuser. Quantum Electrical
IDL-0136	Cupboards.	High pressure laminate (HPL) faced MDF. Core material: FR (Flame Retardant) Euro Class B. Euro Class C. Class E1 board. 2mm thick ABS edging. MDF - Medite.*
IDL-0139	Plinth.	Black - polyester powder coated galvanized steel
IDL-0140	Lower facia panels.	Vitreous enameled steel panels. (9006 - 79006833 - Semi Gloss).
IDL-0141	Side panels.	Vitreous enameled steel panels (708B15SS3-Semi Gloss).
IDL-0134	Signage.	Vitreous enameled steel panels.
IDL-0142	Panels between counters.	Compact grade laminate. Formica.
IDL-0125	Pin boards / notice boards (acoustic panels).	Fabric wrapped Sundeala - (FR). Core material Sundeala (FR) FRB BS EN 13823 & BS EN 11925 - 2 Camira fabrics - Lucia BS 476 Part 6 Class 0 when FR treated
IDL-0126	Roller blinds - screen printed: 'Position Closed'	Blackout blinds screen printed Fire retardant fabric (FR) - BS 5867 : 2008 Part 2 Type B in accordance with BS EN ISO 15025 : 2002 Procedure. Finnestra.
IDL-0127	Under counter cable mangement.	Polyester powder coated steel. 2 compartment segregation. Ideas Limited.
IDL-0143	Draught excluder.	Ideas Limited.

* High specification material that can be downgraded subject to design risk assessment and approval.

Integration Design Ergonomics Applications Solutions

Title:	**TICKET OFFICE DESIGN** Inventory of Items and Materials / Suppliers	Drg No.:	**TOD-IDE-Spec1**	Notes:		REVISIONS		
		Drawn:	NTC			DD/MM/YY		REMARKS
Client:	**NETWORK RAIL**	Date:	15/12/2014		A	16 / 02 /15	Induction loop included. High specification material noted.	
Project:	**TICKET OFFICE DESIGN FOR NETWORK RAIL STATIONS**	Scale:	NTS					

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