

Station public realm design guidance

August 2015

Foreword

A station is often at the heart of its community and has the power to transform an area, unlocking its potential, fuelling its economy, and connecting the people who use it to our great city and beyond. They play a central part in millions of Londoners' lives, every day.

At Transport for London (TfL) we have invested significantly in our stations and will continue doing so, putting good design at the centre of everything we do. But our customers' journeys don't end when they leave a station, and likewise great design cannot simply stop at the station threshold. Customers must be able to move seamlessly from these spaces onto the next stage of their journey.

Every train, bus and Tube station should be integrated into its surroundings, providing a smooth transition from the pavement to the platform. When someone arrives at a station it is the public realm they experience first; that initial impression matters. High-quality public realm should support station operation and help people use different forms of transport. It should place the station at the centre of its community and aid growth.

There are challenges to creating public realm that works; every station and every piece of public space is unique. These spaces are owned and managed by a broad range of public and private organisations, and we have to collaborate and share a common vision of what they should be. It is our collective responsibility as TfL, local authorities, private developers and local communities to ensure that our stations and their associated public realm create an exceptional user experience. By working together we can improve the interface between the station and the city and create a public realm of which we can all be proud.

To support the process, this guidance defines what station public realm should do and sets our aspiration for creating a network of exceptional station public realm across London. It is for everyone involved in the process, and helps us all work together to achieve the highest quality spaces for our great city.



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This document has been prepared by the TfL Urban Design team in collaboration with Grimshaw Architects and with support from BDP.

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1. Introduction

The public space around stations has a significant impact on London and its residents and visitors. It is the link between the transport system, the city and the external face of the operator.

When someone travels to a place by public transport, the station is the arrival point and the public realm connects the station to the local area. Good public realm supports the transport system, builds the identity of a place, enhances the station as a community asset and supports growth in the local economy.

This document makes the process of improving station public realm easier by stating our preferred approach.

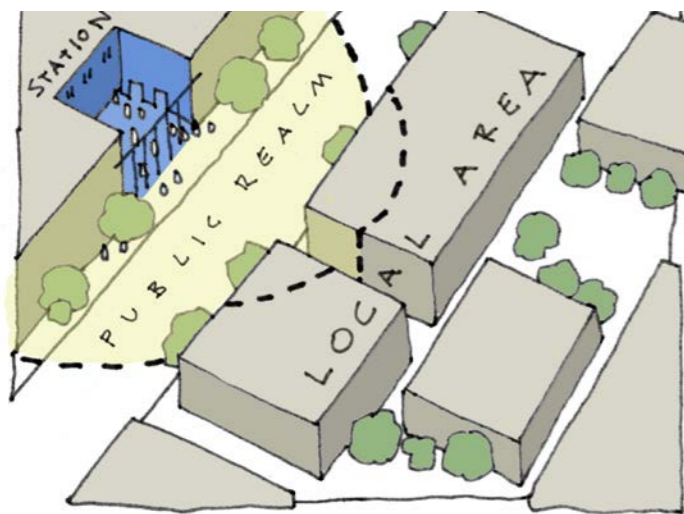
It is produced by the Transport for London (TfL) Urban Design team, which supports and promotes good urban design and high-quality public realm across the Capital's transport system.



Public realm outside Shepherd's Bush London Underground station

1.2 This document

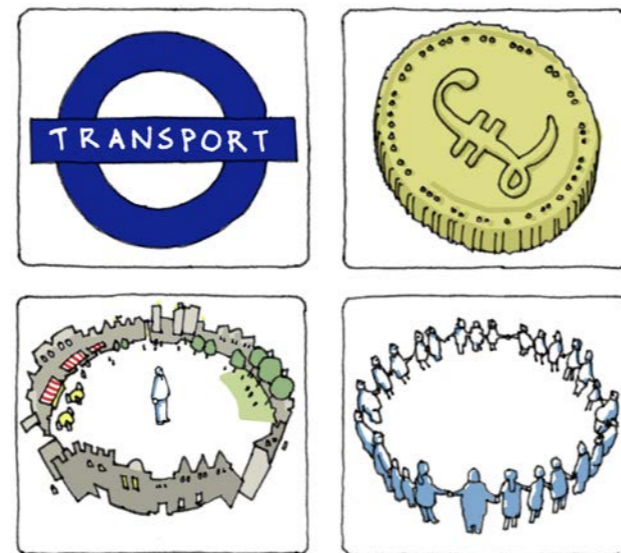
This document is about the design and upgrade of the public realm outside London's public transport stations.



It should be used at the beginning of any project where there is the opportunity to improve station public realm, station forecourts or station approaches.

1. Introduction

Section one sets out four high-level objectives for station public realm. The balance of these objectives for the specific station should drive all design decisions.



- 1.1 Foreword
- 1.2 This document
- 1.3 Objectives of station public realm

2. The destination

Section two describes the station as a destination. The destination is the reason people travel to a station and helps us to understand what kind of people use it.



- 2.1 Types of destination
- 2.2 Types and balance of user
- 2.3 Usage patterns
- 2.4 Local aspirations and change

3. The local area

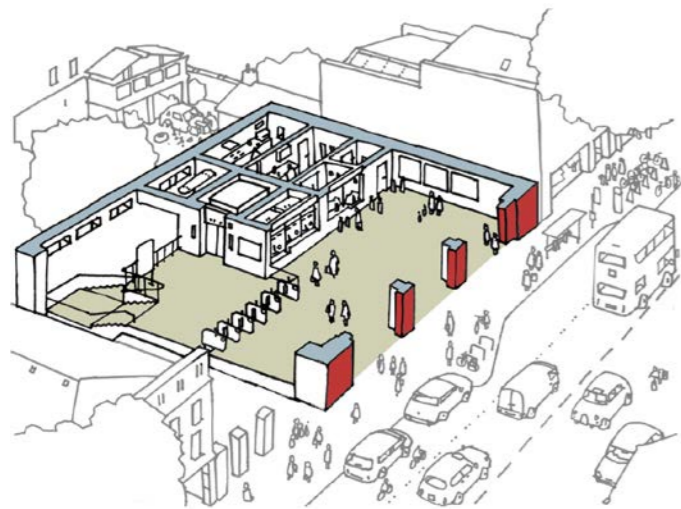
Section three defines the local area as the spatial arrangement of local uses, for example for shopping or work, and transport access points. This helps us to understand the spatial relationship between the station and the place that it serves.



- 3.1 Local uses
- 3.2 Transport interchange
- 3.3 The connections
- 3.4 The street network and the Roads Task Force

4. The station

Section four considers the station and the way it affects the public realm. The section identifies the opportunities and constraints imposed by the station on the local area.



- 4.1 Station form
- 4.2 Station architecture
- 4.3 Transport operator
- 4.4 Station layout, transport interchange and station access
- 4.5 Commercial opportunities

5. The station public realm

Section five looks at the overlap between the local area and the station and considers how the public realm can help create a balance of movement and place.



- 5.1 Design parameters
- 5.2 Laying out the public realm
- 5.3 Movement
- 5.4 Place
- 5.5 Finding the balance

6. The essentials

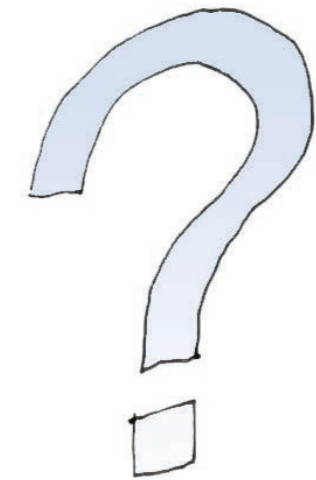
Section six lists the essential requirements that all station public realm should satisfy. These requirements are largely independent of the type of station and type of space.



- 6.1 User information
- 6.2 Street furniture and planting
- 6.3 Pedestrian safety
- 6.4 Crime prevention and reduction
- 6.5 Accessibility and inclusive design

7. Next steps

By Section seven designers should have a clear list of objectives, opportunities, constraints and requirements for the public realm. The section therefore focuses on what to do next.



- 7.1 The case for improvement
- 7.2 Defining the project
- 7.3 Consultation, engagement and contacts
- 7.4 Further documents and guidance

1.3 Objectives of station public realm

The space outside a station should support both the station itself and the local area, allowing them to work better together. This goal can be broken down into four objectives for the public realm.

These will not be equally important for every station and a judgement should be made on which are the most relevant for the location.

The balance of objectives will depend on a range of related issues, described in subsequent sections.



Figure 1.1. Transport objectives

1. Transport: Optimise the local operation of the transport system

Stations rely on the public realm around them to maintain and make the most of their operation.

The public realm should protect the operation of the station and reduce any negative impacts of transport infrastructure on the immediate area.

This objective will be more important where infrastructure is more complex, where there are a number of different transport modes and where there are large numbers of people.



Figure 1.2. Place-making objectives

2. Place-making: Enhance the sense of place

A station will often be the first experience people have of a local area. The public realm should provide a good first impression and help the station become part of the local identity.

The station can also enhance the local area, drawing people to it.

This objective will be more important at stations that act as gateways into an area, near tourist attractions and in areas which have strong local identities.

Further guidance (see section 7.4)

- Ref. no. 23
- Ref. no. 37

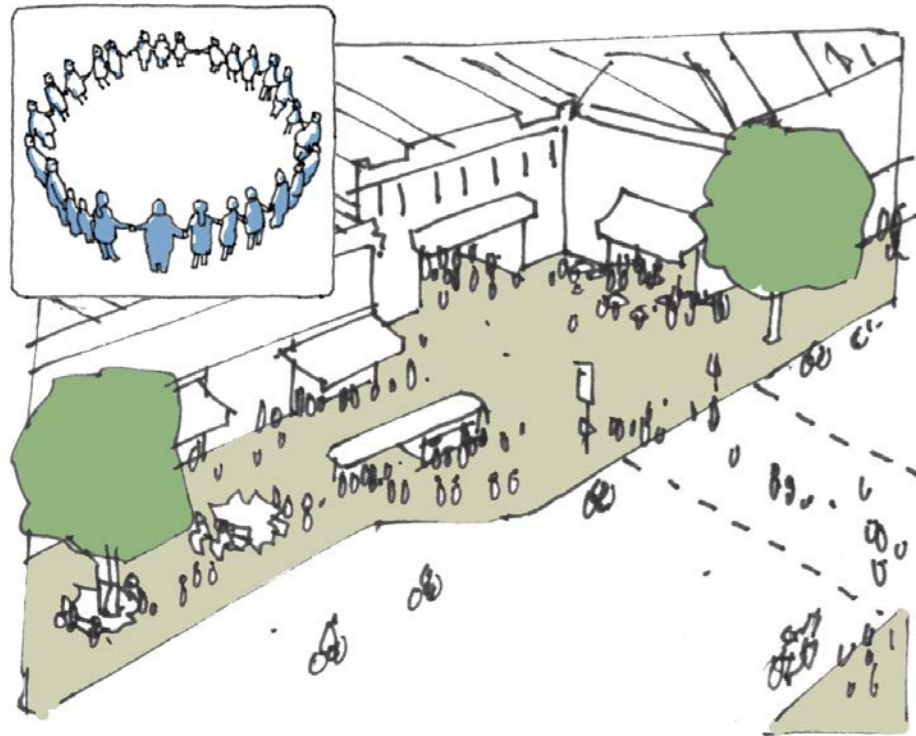


Figure 1.3. Community objectives

3. Community: Develop socially engaging spaces that unlock community benefit

A station is vital to local people's lives. It should be at the heart of supporting the community, unlocking social benefits and contributing to a more enjoyable place to live, work and visit.

The public realm should connect the station to the community and do more than provide a transport function by making the most of its role in people's lives.

This objective will be important at local stations where the station might be one of the most essential parts of the community.

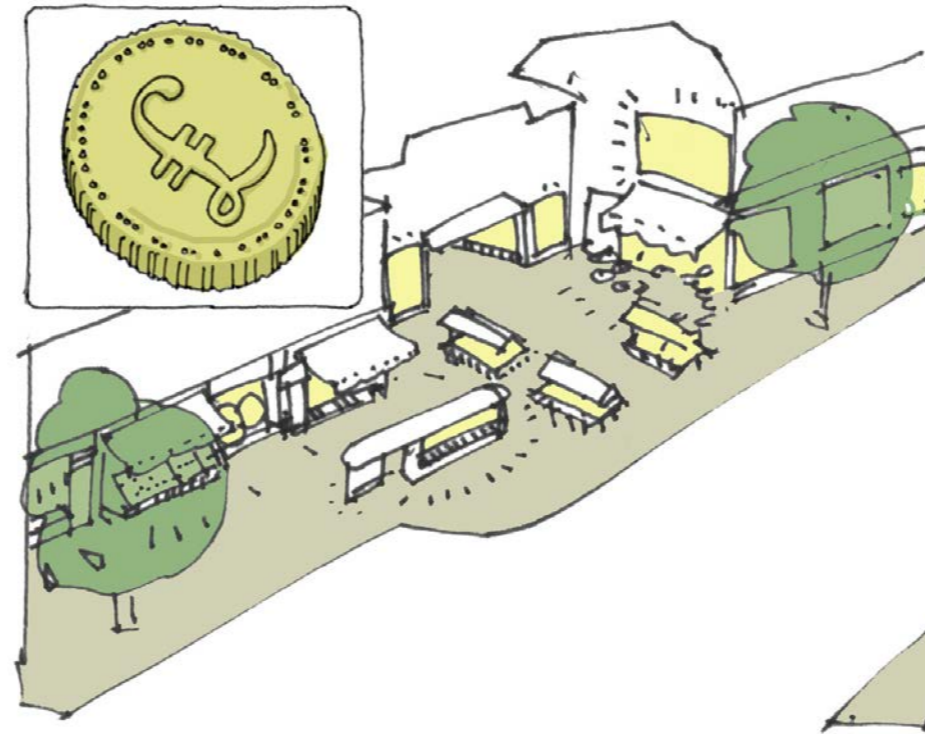


Figure 1.4. Commercial objectives

4. Commercial: Support the local economy and generate commercial revenue

A station creates opportunities to generate revenue. Complementary services and retail can improve a passenger's journey.

The public realm should help provide access to these services, enhance opportunities to generate revenue and support the local economy.

This objective will be important at stations where there is enough footfall to make retail viable without disrupting access to the transport system.

2 The destination

This section explores what type of destination the station serves, what types of people it attracts and how the area might change in the future. These considerations should be used to help identify a balance of objectives for the public realm.

2.1 Types of destination

The type of destination is the reason people travel to a station. This guidance promotes the understanding of a destination as a balance of four typologies. Most destinations cannot be classified under just one typology; instead there will be a balance of different ones.

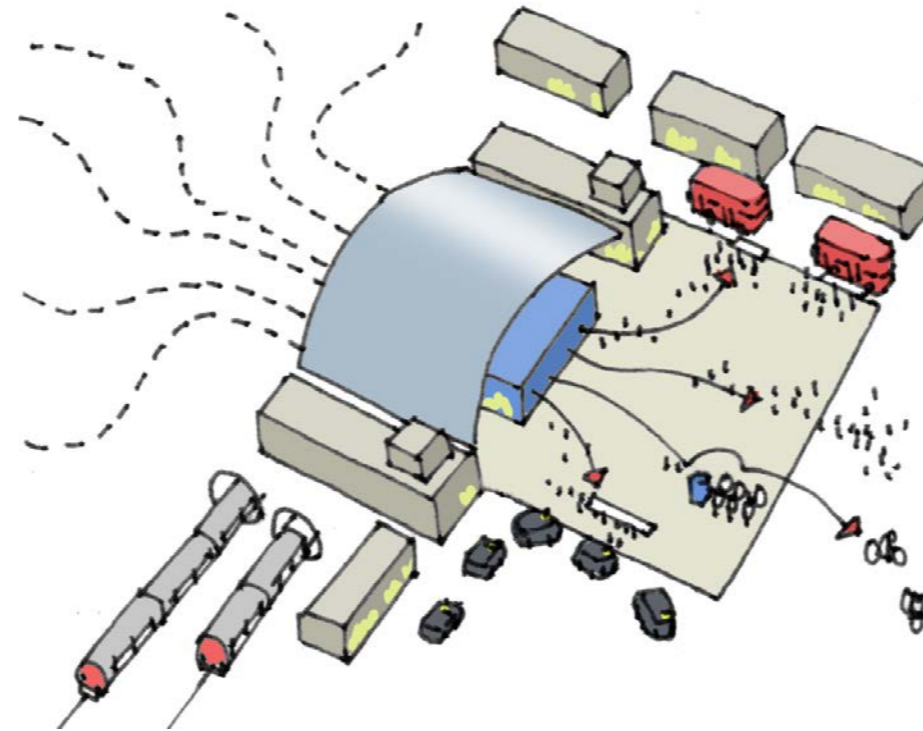


Figure 2.1. A gateway destination

Gateway

A gateway station is a point of arrival into London. Examples include King's Cross St. Pancras, Victoria and Paddington.

Gateway stations create certain opportunities and challenges, for example:

- Users may not know the city, the local area or the transport system and will need to familiarise themselves with them
- The need to create a good first impression of the Capital, the local area and the transport system
- Dwell times at the station may be longer than at other stations
- High flows of people at certain times and potential conflict between different types of user

The public realm will need to support transport, place-making and commercial objectives by:

- Creating a positive first impression
- Enabling familiarisation with the Capital and its transport system
- Allowing multiple types of users to use the space differently
- Providing places to spend time, things to do and station retail owing to the longer dwell times of some users

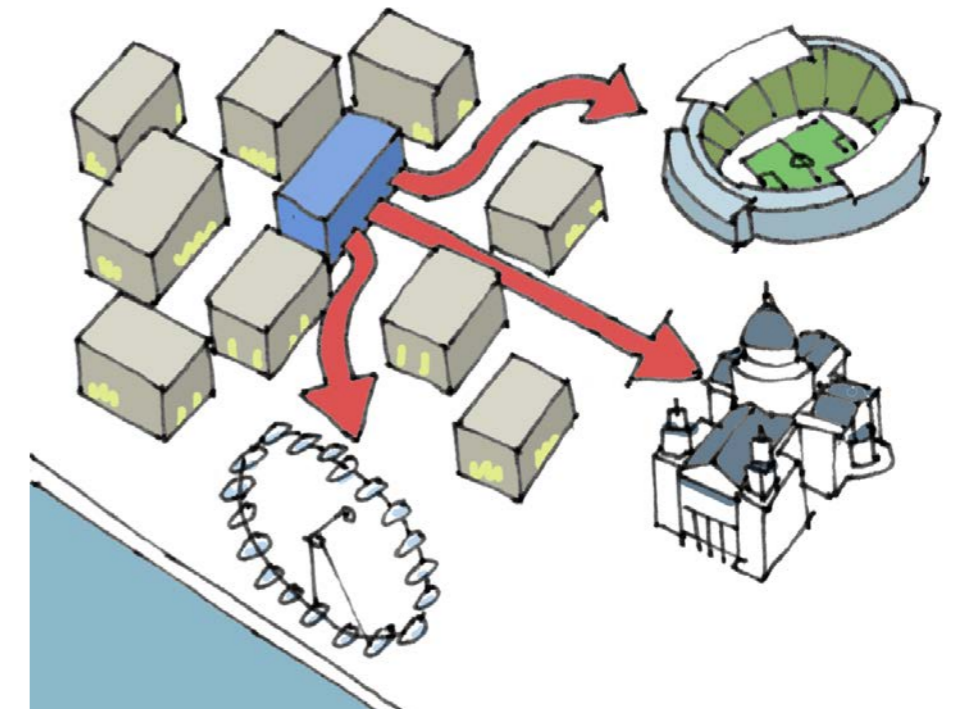


Figure 2.2. An attractor destination

Attractor

An attractor station serves a significant destination within the local area; it is usually an end point of a journey. Examples include Stratford for the Queen Elizabeth Olympic Park and shopping centre, Oxford Circus for shopping and South Kensington for the museums.

Attractor stations create certain opportunities and challenges, including:

- Users may be in the location for the first time
- There may be just one or two key destinations which users may be looking for
- Some destinations may experience large flows of lots of people at certain times
- Users may want to get more from the experience of being in the area rather than just visiting the destination

The public realm will need to support place-making and commercial objectives by:

- Orientating and familiarising people with the local area
- Building the identity of the place and creating a good first impression
- Providing opportunities to enhance the experience for users
- Supporting large flows of people at certain times
- Offering commercial opportunities that complement the local area

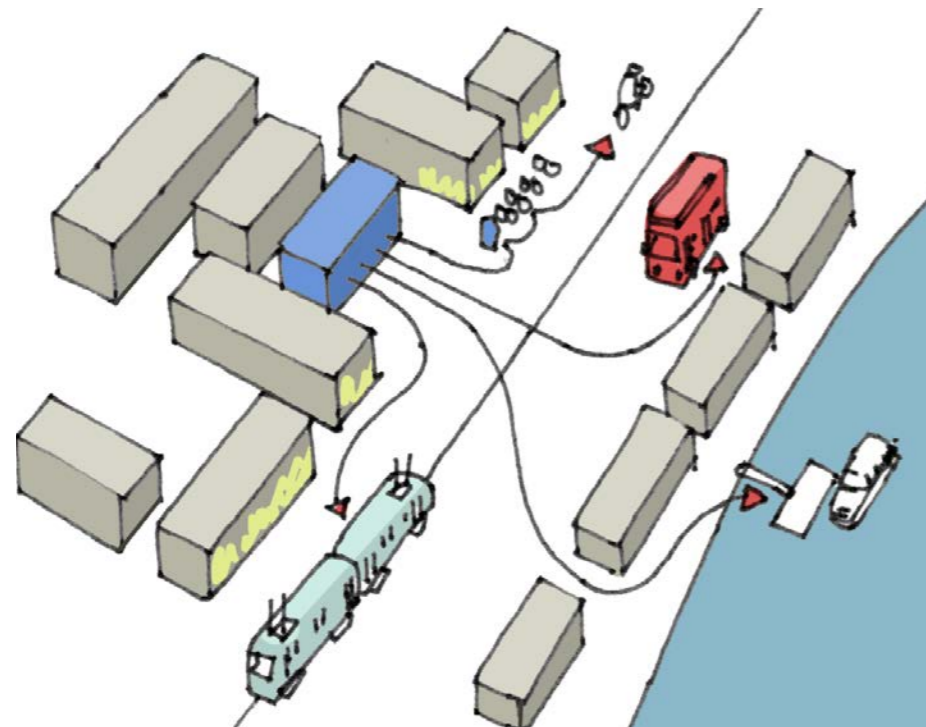


Figure 2.3. A metropolitan destination

Metropolitan

Metropolitan stations are stations normally close to or within town centres. They often act as interchange hubs between regional and local modes of transport. Examples include Brixton, Vauxhall and Tottenham Hale.

Metropolitan stations create certain opportunities and challenges, including:

- Large numbers of different types of users, often with different requirements and moving at different speeds
- The need to provide up-to-date information on the transport system, especially during disruption
- Congestion in the public realm at peak hours and during disruption
- Regular commuters who quickly adapt to habitual routines but who can benefit from convenience services

The public realm will need to support transport objectives by:

- Balancing the needs of conflicting user groups
- Maintaining ease and speed of movement for commuters
- Enabling the provision of up-to-date information
- Reducing high levels of congestion during peak times and disruption

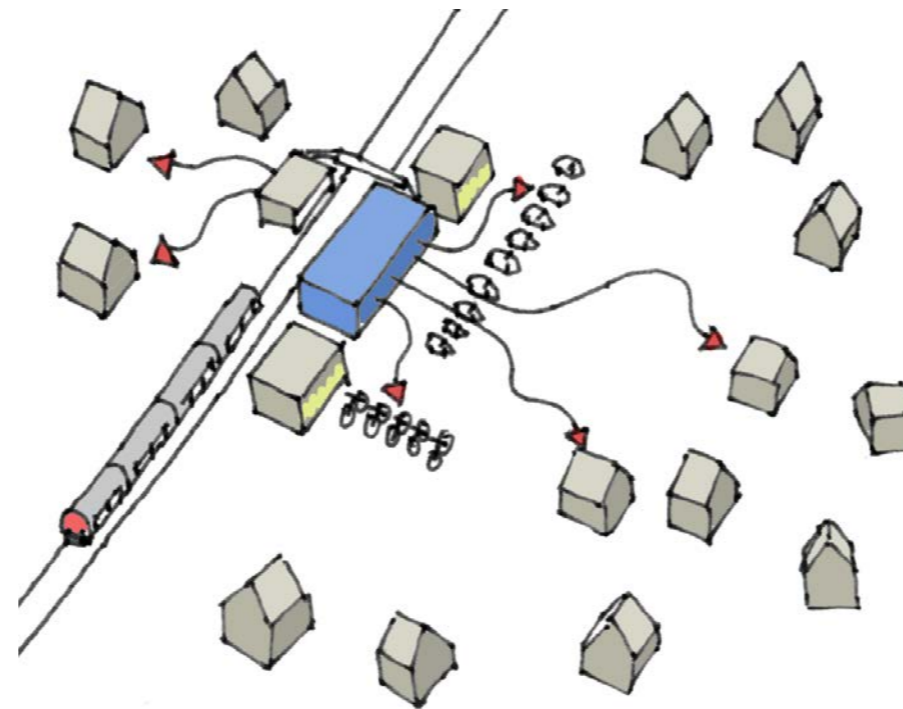


Figure 2.4. A local destination

Local

Local stations tend to be smaller than the other types and commonly just serve a single mode of transport. Examples include Alperton, Amersham and Barkingside.

Local stations create certain opportunities and challenges, including:

- Low numbers of people at certain times
- Issues around safety and security
- Opportunities to involve the local community and generate community value
- A need to build a sense of place and identity
- The potential for personalisation

The public realm will need to support community and place-making objectives by:

- Connecting with the local community through opportunities to integrate with the social and community dimensions of the area
- Developing a sense of identity and personalising the station to fit the location
- Providing a safe and secure environment
- Discouraging private car use connected with the station where there is a reasonable alternative

Understanding the type of destination that the station serves enables us to:

- Recognise the particular opportunities and constraints presented by the way the station serves the local area
- Identify and prioritise objectives for the station public realm

Most stations will not fit into a single typology, but will be a combination. For example, Stratford could be described as an attractor, a gateway and a metropolitan station, while Kew Gardens is both a local station and an attractor.

Despite this, by defining each station by its most prominent typology and showing these on a map of the Capital it is possible to see the following:

- Attractors tend to be in central London
- Gateway stations tend to be around the edge of central London
- Local stations tend to be in outer and inner London
- Metropolitan stations are more evenly distributed across London as a whole

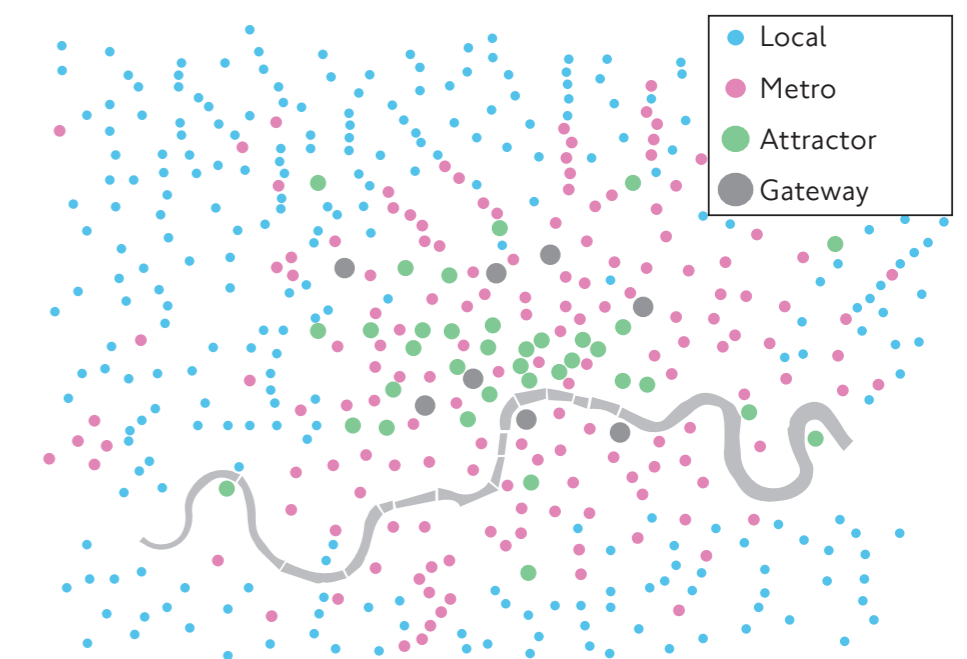


Figure 2.5. Indicative distribution of destination types across London

2.2 Types and balance of users

Further guidance (see section 7.4)

• Ref. no. 19

Understanding the type of destination also helps us to get an idea of the sorts of people that use the station.

There are three key types of people that should be considered: commuters, tourists and recreational users. These are described below. Groups with specific needs such as older people, families and visually and mobility-impaired people are described in Section six.



Commuters

Commuters regularly visit a station and often move individually, quickly and efficiently. They are focused on getting to their destination and may have little time.

They are present at gateway, local, metropolitan and attractor stations and present the following challenges and opportunities:

- They want to move as quickly and as efficiently as possible
- They want travel information only when there is a need for it
- They benefit from convenience services that improve their journey or enable them to be more efficient

Commuters benefit from public realm that supports transport and commercial objectives and provides:

- Direct, well-sized routes to destinations
- Areas to check travel information
- Opportunities for convenience retail



Tourists

Tourists may only visit a station once and may be unfamiliar with their surroundings and the transport system. They often move in groups and take their time.

Tourists most commonly use gateway and attractor stations and present the following challenges and opportunities for a station:

- They may need support in orientation
- They may need more space owing to the extra time they take, the size of the group and because of any large bags they have with them
- They want to make the most of the area and the experience

Tourists will benefit from public realm that supports place-making, community and commercial objectives and provides:

- Clear information, signage and intuitive way-finding
- Additional space near information and orientation areas
- Opportunities to enhance the sense and the experience of the place



Recreational users

Recreational users are similar to tourists but are likely to live in or near London. They usually move in small groups, are purposeful but take their time. They are likely to be in a positive and relaxed frame of mind.

Recreational users commonly use gateway, local, metropolitan and attractor stations and present the following challenges and opportunities for a station:

- They are more relaxed and move at a slower pace
- They may need areas to wait, meet friends and socialise
- They may use the transport system later in the evening
- They may look for ways to enhance their journey

Recreational users will benefit from public realm that supports place-making, community and commercial objectives and provides:

- Areas to wait and socialise
- Opportunities for retail, as well as bars and cafés

2.3 Usage patterns

The public realm may have to perform different roles at different times. The type of destination and the profile of users help us to understand the likely pattern of use at a station and how the public realm should respond.

The numbers and mix of users may change at certain times of the day and week. Users may also want to move through or use the space differently at different times.

Travel Demand Management

Enabling people to make small changes to the way they use the transport network can be a cost effective way to ease congestion and provide customer and operational benefits without the need to invest in capacity and station upgrades.

The public realm can help support such behaviour change in different ways. For example, high quality public realm can encourage people to walk and provide opportunities to spend time in the local area in a way that can smooth congestion at peak times. It can also help with wayfinding and get people to consider other forms of transport.

The needs of each station and the surrounding streets will be different depending on the context and the distribution of congestion. Discussing the project with the Travel Demand Management team can therefore help to increase the potential function of a public realm scheme. For more information contact the TfL Urban Design team.



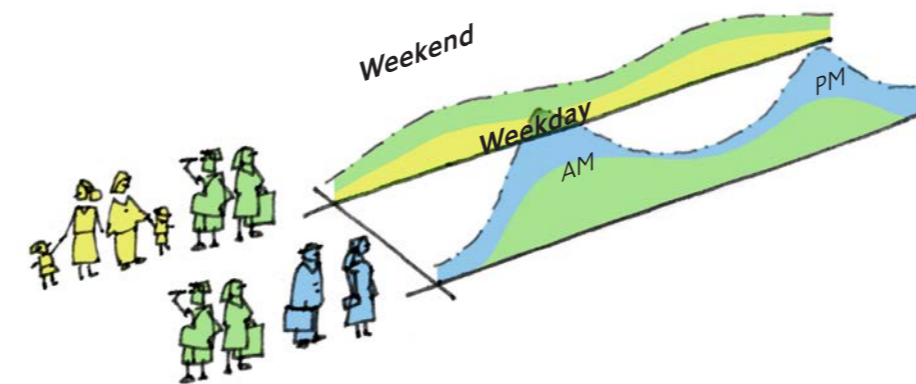
Data collection

Oyster card data can be used to identify the patterns of use at any station that uses the Oyster system. In its simplest form, this gives a profile of entries and exits throughout the week. There are also ways that the data can be analysed to understand the types of people using a station. For more information, contact the TfL Urban Design team by emailing urbandedesign@tfl.gov.uk.

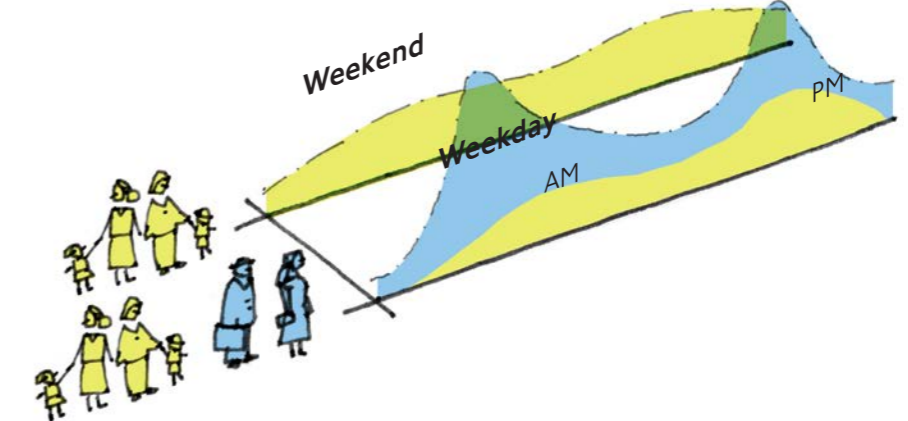
Further guidance (see section 7.4)

- Ref. no. 35
- Ref. no. 40

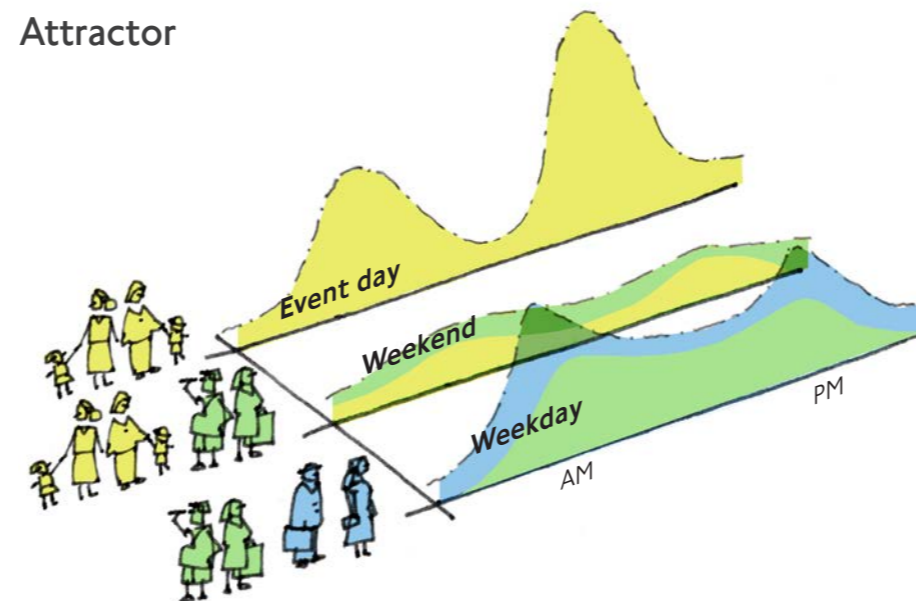
Gateway



Metropolitan



Attractor



Local

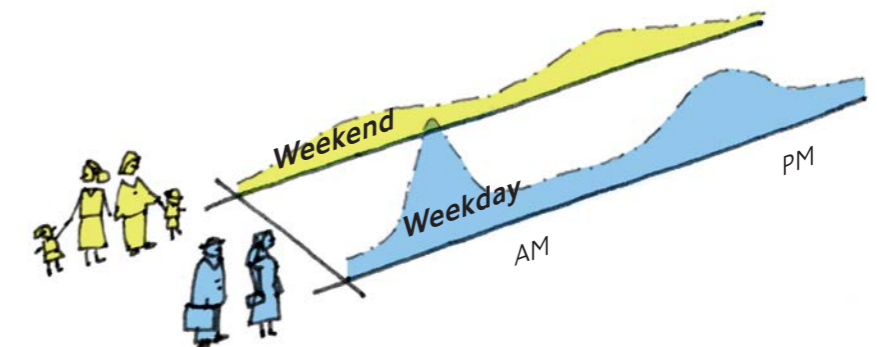


Figure 2.6. Indicative variations in the number of users at a station

2.4 Local aspirations and change

Places don't stay the same but evolve, therefore when understanding an area we should recognise how it is likely to change.

A picture of how a place could change can be developed from a number of sources:

- Approved planning applications and proposals due to be submitted for planning permission
- Statutory and non-statutory planning policy
- Neighbourhood plans
- Stated aspirations of stakeholders, for example residents, businesses, land owners, Business Improvement Districts (BIDs) and other interested parties

Future change should be recognised at the earliest possible stage, before any designs have been produced. This is often best achieved by consulting with the local authority and TfL who will advise on their plans and those of key stakeholders who have interests in the area.

Further guidance (see section 7.4)

- Ref. no. 23
- Ref. no. 31
- Ref. no. 37

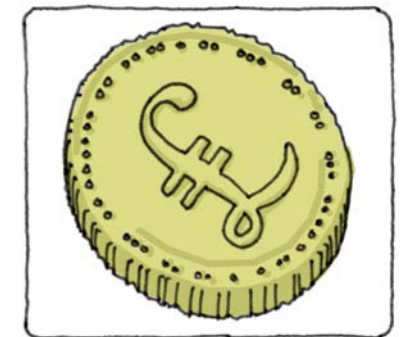
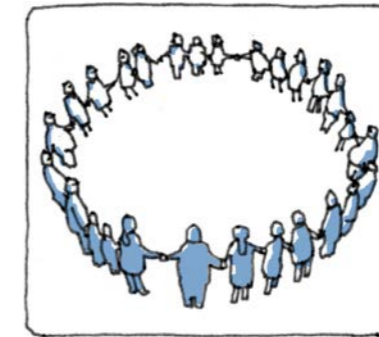


Interim stages while significant changes are made to the local area at Tottenham Court Road

Summary: The destination

This section has focused on the need to identify the balance of public realm objectives by thinking about the type of place a station serves. The section asked three key questions:

1. What type of place does the station serve?
2. What types of people use the station?
3. How could the area change in the future?



Transport	Place-making	Community	Commercial
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What type of place does the station serve?

What drives the local economy and how could revenue be generated? For example: retail, banking, food and drink or other forms of business	What transport functions are key characteristics of the place? For example: an interchange, a gateway point or other transport functions	What identity does the place have and what is it known for? For example: culture, shopping, sport or anything else associated with the place	What is important to the local community? For example: education, places of worship, health or certain groups of people
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What types of people use the station?

What types of users are most important to the local economy? For example: shoppers, business people, sports fans	What do the majority of users need to get from the transport system? For example: interchange, travel information or status updates, or the ability to walk from the station	What is important about the identity and sense of place? For example: a sense of arrival, a sense of what happens there or how local people associate themselves with the place	What types of communities see the station as important? For example: residents, university students, users of a hospital, or a particular nationality or race
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How could the area change in the future?

How is the economy likely to evolve in the future? For example: it could become more retail-focused or a certain skill could become important	Are there any proposals for new transport infrastructure? For example: proposals for a new station nearby, or passenger numbers may be increasing or decreasing	How is the character of the place expected to change? For example: there could be an increase in business or residential use, or it could get busier, quieter or more diverse	What are the priorities of the local community? For example: environmental improvements, tackling congestion, or opportunities for culture or education
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3 The local area

This section looks at local uses and local transport interchanges, how people move between them and the way that the station public realm can support this. This analysis should be used to identify how the public realm can help integrate the station with the local area.

3.1 Local uses

We need to consider how the most common origins or destinations for people using the station are spread out around it and consider how they relate to it.

Generally, local destinations that are within 800 metres (about a 12-minute walk) from the station should be included.

Intensity and density of use should also be considered. Some uses focus people at a certain point, while others spread them out. An analysis of the density of the use will enable understanding of which parts of the local area attract the most people:

Functional

Places where people go to do something specific, including shopping, or visiting a hospital or library. Depending on the specific use, all types of users may access these services, but more commonly during the day.

The public realm should provide an efficient and convenient means of movement to these uses.

Recreational

Places visited by tourists and recreational users such as tourist attractions, parks, bars and restaurants. People tend to take more time when accessing these amenities and want to enjoy the experience but may not know how to get to the destination.

The public realm should support social activity, provide space and time to dwell and offer good wayfinding.

Workplace

Places where people go to work. They are mainly accessed by commuters during office hours. Users are largely travelling at peak periods and want to travel quickly and efficiently.

The public realm should enable efficient and convenient movement and offer ways to enhance the experience.

Residential

Residential use will be spread out over a broader area than the other types of destination and density will vary.

The public realm should provide for convenient, safe and secure movement.

Data collection

We periodically collect information on the Route, Origin and Destination (RODs) of transport users. This can be accessed for a particular station and can help to identify where people are going to and from in the local area. For more information, contact the TfL Urban Design team by emailing urbandesign@tfl.gov.uk.

Further guidance (see section 7.4)

• Ref. no. 35 • Ref. no. 40

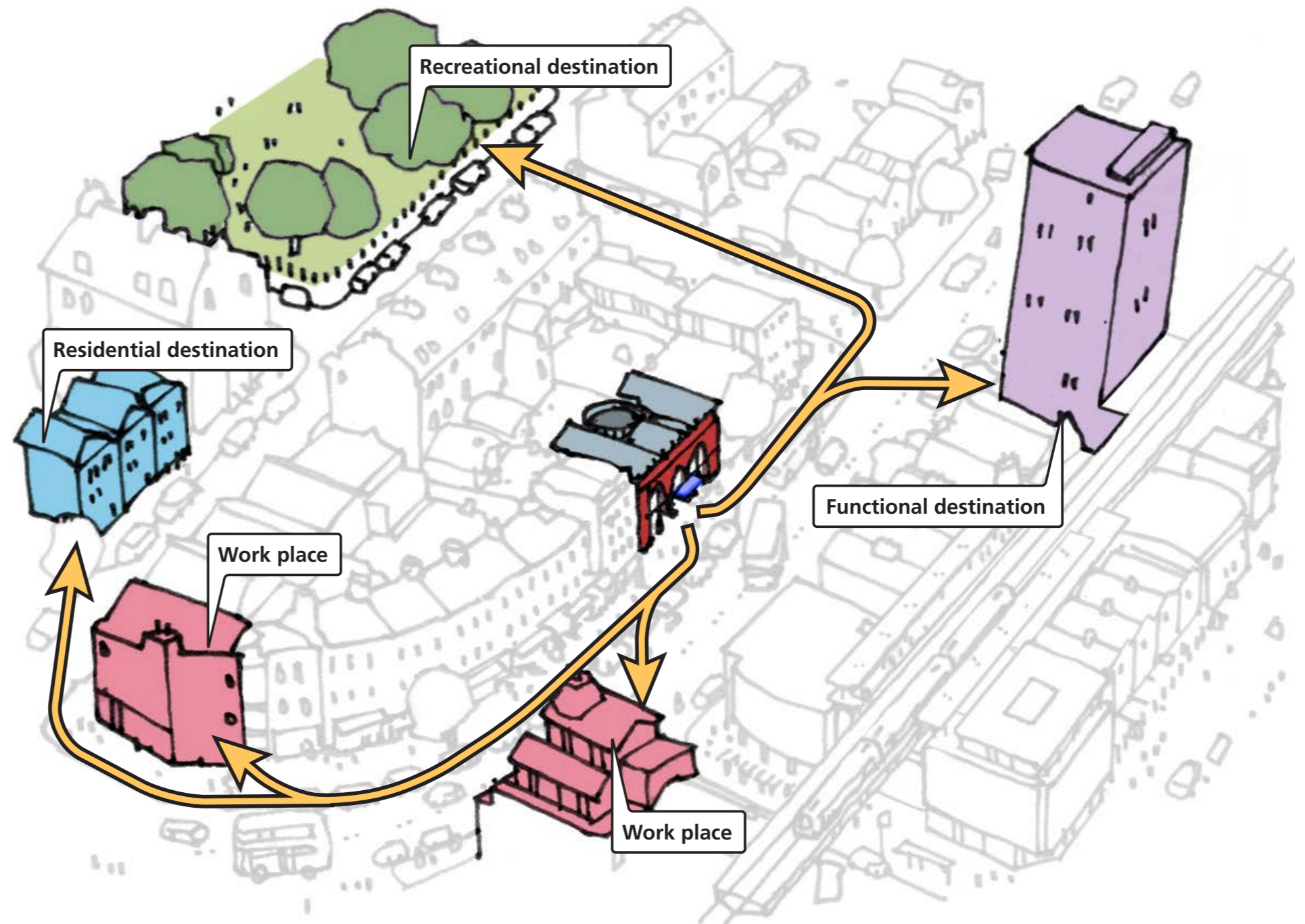


Figure 3.1. People will travel from the station to local uses distributed around the local area

3.2 Local transport interchange

Further guidance (see section 7.4)

• Ref. no. 12 • Ref. no. 34 • Ref. no. 38

We should consider the access points of other transport near the station and look to make the most of these connections for passengers using the area for interchange.

While interchange distance should generally be kept under 100 metres, designers should consider transport destinations that are within 200 metres (about a three-minute walk) of the main station.

Other public transport stations

Nearby rail, bus or tram stations may generate high flows of people travelling between stations at peak times. The public realm should allow for them and provide wayfinding and travel information.

Bus stops

Bus stops may be spread out across the local area and stops for different directions of the same route may not be opposite each other on the street, making wayfinding important.

Bus stops should always be positioned and designed to allow passengers to locate the correct stop easily, and board and alight safely and conveniently. The public realm should support this.

At some stations, it might be possible to alter the location of bus stops to improve the interchange experience. The impact of any changes on the bus network should be considered carefully. Stop locations must be agreed between TfL, the highway authority and the police. Residents, local businesses and bus user groups may also need to be involved.

When proposing changes to the location of bus stops, the following should be considered:

- Bus stops should be placed as close to the main station as possible and where feasible, within a maximum distance of 100 metres
- Bus stops which serve different directions on the same service should be as close to one another as possible
- Bus routes that serve the same destination should be grouped together
- Passenger shelters should be provided at all stops where feasible, to ensure the best possible passenger waiting environment
- All new bus stops should follow TfL's latest Accessible bus stop design guidance in terms of kerb height, and should provide sufficient space for the expected numbers of passengers

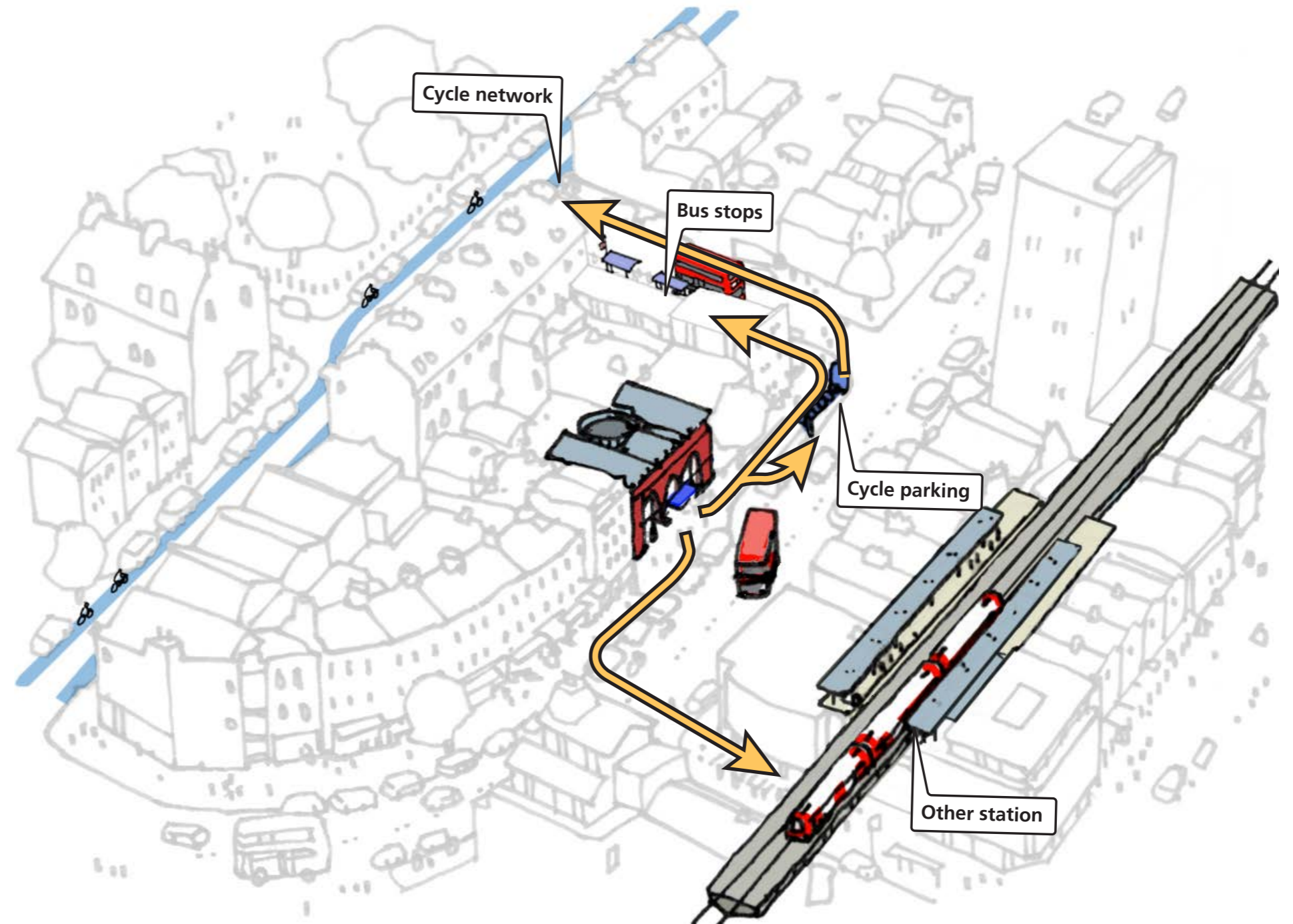


Figure 3.2. People will travel from the station to other transport access points

While it is generally positive to minimise the distance bus passengers need to travel for a connection, designers should consider the whole experience of interchange. It is important to consider visibility between related stops and the main station entrance, the location of pedestrian crossings, passenger safety, accessibility and space for queuing.

If a public realm proposal impacts the location of a bus stop or stand then it should be discussed with the TfL Bus Infrastructure team at the earliest possible opportunity.

Cycling

How passengers travelling by bike get to the station is an important consideration. Analysis of the local area should consider how the station relates to the local and strategic cycle network.

Data collection

Oyster card and RODs data can help identify which types of interchanges are most common at a station and therefore which connections should be prioritised when improving the public realm. For more information, contact the TfL Urban Design Team by emailing urbandesign@tfl.gov.uk.

Further guidance (see section 7.4)

- Ref. no. 35



Transport interchange in the public realm at London Bridge

3.3 The connections

For each route we should consider if and how a pedestrian physically makes the connection, how they identify the route and how the experience can be improved.

Can you physically make the connection?

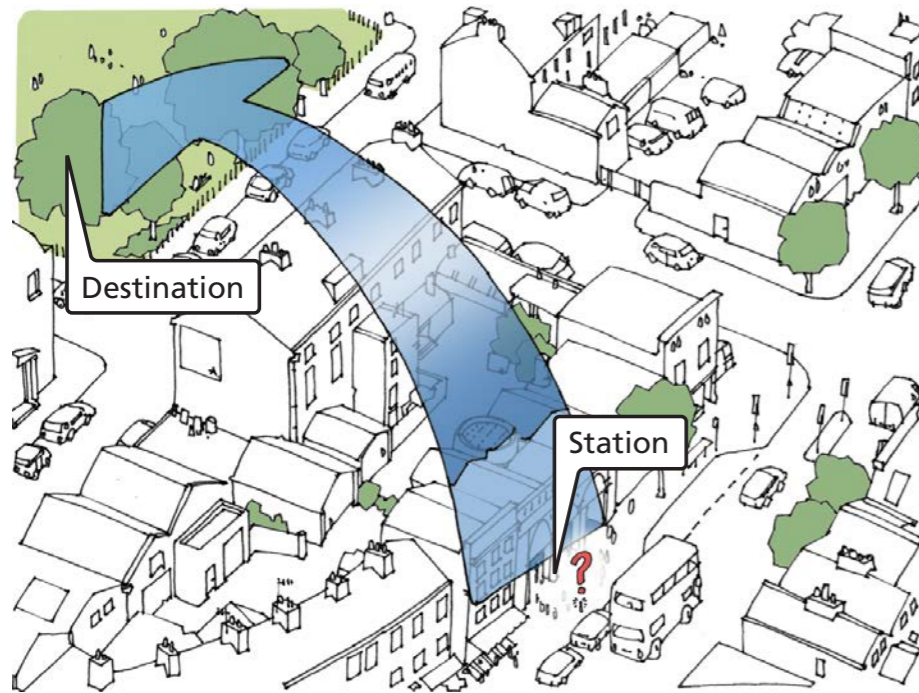


Figure 3.3. The physical connection

To understand the physical connection, consider:

- Any physical barriers to movement such as buildings, busy roads and street furniture
- Narrow or congested footways and the impact of large flows of people at certain times
- Adverse gradients that are difficult for some people to use

The physical connection could be improved by:

- Creating new routes through buildings or inaccessible areas
- Providing additional crossing points
- Widening footways and decluttering the space

Is it clear how to make the connection?

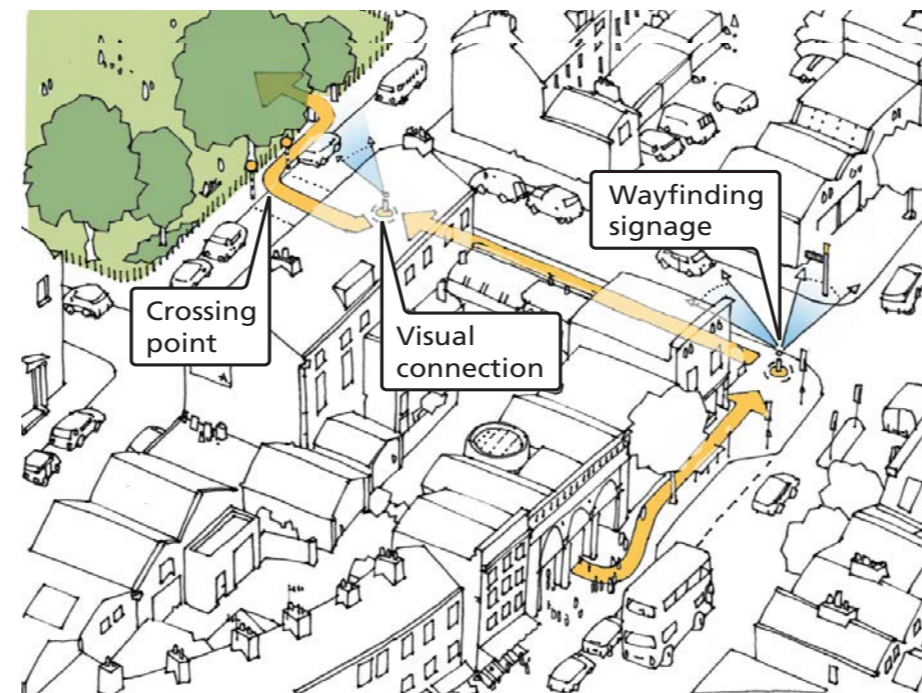


Figure 3.4. Making the connection

To understand the clarity of the connection, consider:

- The visibility of the destination and the views towards it
- Intermediate stages in the journey
- Existing signage to the destination and its quality
- How intuitive the street and building layouts are

The clarity of the connection could be improved by:

- Decluttering the routes and spaces
- Adding appropriate signage in appropriate locations
- Opening up views to the destination and of intermediate landmarks
- Reconsidering the layout of the street to make it more intuitive

Further guidance (see section 7.4)

- Ref. no. 10
- Ref. no. 36
- Ref. no. 14
- Ref. no. 22

Can the experience be improved?

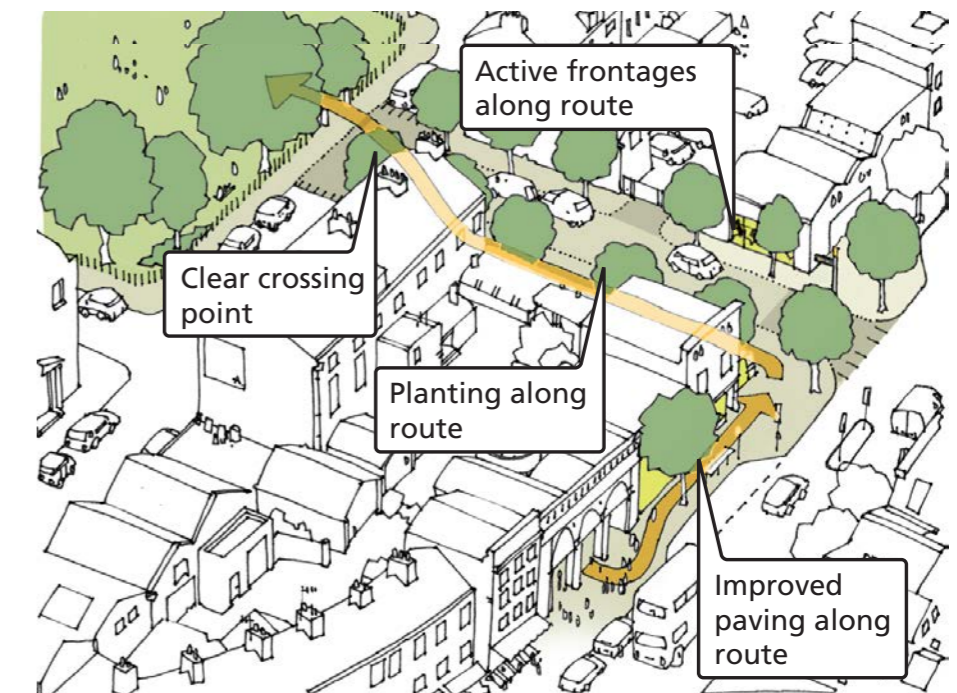


Figure 3.5. Enhancing the connection

To understand the experience of the connection, consider:

- The levels of congestion on the footways
- The environment and visual appearance of the route
- How safe the route feels
- How much the experience of getting to the destination reflects the destination itself

The experience of the connection could be improved by:

- Widening the footway and decluttering to better accommodate pedestrian flows
- Improving the quality of materials
- Providing appropriate planting along the route
- Adding active frontages and providing retail or services along the route
- Improving lighting on the route

3.4 The street network and the Roads Task Force (RTF)

A station is connected to the local area by a network of streets and roads owned and managed by either by the local authority, or in the case of the Transport for London Route Network (TLRN) by TfL.

Many of these streets and roads cater for high volumes of 'movement' by vehicles and/or pedestrians, while others are quiet local streets. Streets and roads are also 'places' such as shopping and leisure destinations, major growth areas, or local neighbourhoods. As such, the priorities for streets and roads vary according to the role they play within the network and their place specific context.

The RTF published a report in 2013, setting out a framework to improve the way the road network is designed and managed by TfL and local authorities. The framework consists of nine 'street types' and locations on the road network are classified by assessing movement and place function.

A station could be located within any of the nine street types defined by the RTF. The design of the public realm outside the station will require a unique approach; however it should fit within the context of the street type identified for the location. Some of the most important differences between the approach to movement and place outside a station compared to the wider street typologies are that outside a station there will be:

- A greater intensity of both movement and place activity
- A greater focus on pedestrian movement over mechanised forms of transport
- A more variable level of pedestrian movement related to peak and off-peak flows



Figure 3.6. The Roads Task Force street typologies matrix

Further guidance (see section 7.4)

- Ref. no. 3
- Ref. no. 29
- Ref. no. 38

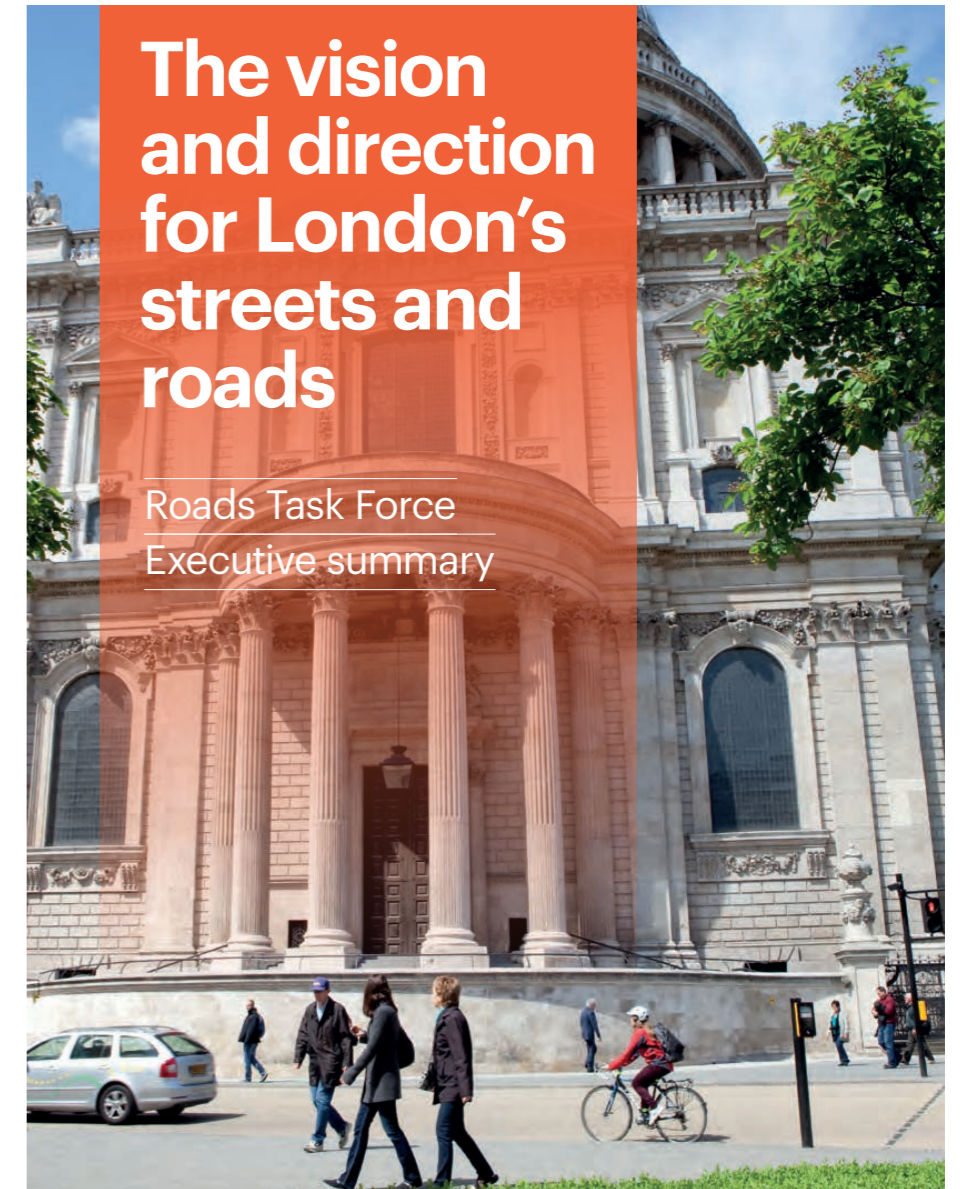
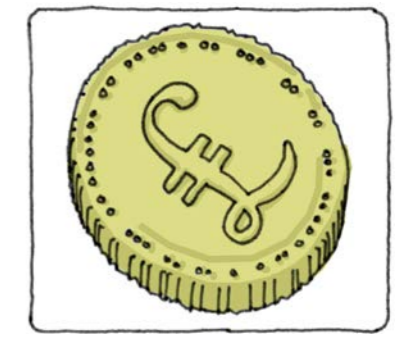
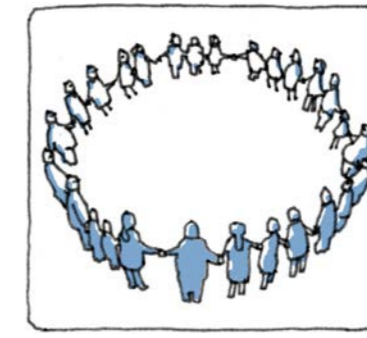
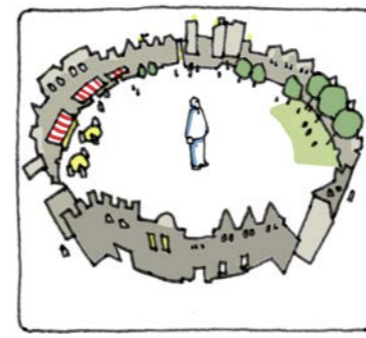


Figure 3.7. Front cover of the Roads Task Force report

Summary: The local area

This section has considered the uses in the local area and how they relate to the station and the station public realm.

The table right summarises the questions that are important when understanding the relationship between the local area and the station.



TRANSPORT	PLACE-MAKING	COMMUNITY	COMMERCIAL
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What are the important local uses and how do they relate to the station?

<p>Which uses are important to the local economy?</p> <p>For example: Retail, banking, food and drink</p>	<p>Which uses will put demands on the transport system?</p> <p>For example: An event venue that creates large flows of people at certain times</p>	<p>Which uses are important to the identity and sense of place?</p> <p>For example: Cultural, art, shopping, sport, tourist destinations</p>	<p>Which uses are particularly important to the local community?</p> <p>For example: Schools, places of worship or health</p>
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What are the key transport access points and how do they relate to the station?

<p>Which transport access points are relevant to the local economy?</p> <p>For example: A connection to a local retail destination or business park</p>	<p>What are the key interchanges between the station and other transport modes?</p> <p>For example: Interchange between two rail stations or two important bus stops which are heavily used</p>	<p>How do the transport access points relate to the identity of the place?</p> <p>For example: A key interchange that tourists use to get to another destination</p>	<p>Which transport access points are particularly valuable to the local community?</p> <p>For example: Local bus services to a hospital or a school</p>
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How do people move between the above uses and the station and how can this journey be improved?

<p>Which key routes are likely to generate footfall for local businesses and commercial assets?</p> <p>For example: The busiest routes could pass along a certain set of roads and carry a certain type of user</p>	<p>Where are the key interchange routes within the station public realm?</p> <p>For example: They could all cross at the front of the station or somewhere less obvious</p>	<p>Which key routes from the station to the local area are the most important for place-making?</p> <p>For example: A route that goes through an important place may be more significant than the destination itself</p>	<p>Are there any community requirements of the routes between the station and local area?</p> <p>For example: Tourists in the local area who could impact on how routes are designed</p>
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4 The station

This section considers the impact of the station on the public realm and the ways in which the public realm can support the station. It should be used to develop a list of opportunities and constraints for the station public realm.

4.1 Station form

Every station has a physical impact on the public realm. This impact depends on the relationship between the station and its surroundings and creates both challenges and opportunities to integrate with the local area. The public realm should address these challenges and harness the opportunities.

Rail at or near ground level – a rail station that is above ground in such a way that the tracks cause a barrier to movement at ground level. For example, Chalfont & Latimer and Clapham High Street.

This physical form can create the following challenges and opportunities:

- The tracks can create a barrier to movement
- The environments created by narrow bridges, subways or narrow footways next to roads can be poor for pedestrians
- The edge of the tracks and embankments can create blank, inactive edges that can be detrimental to the public realm
- The green areas that are sometimes created by embankments can contribute to a sense of place and create biodiversity
- The station can become a point of connection across the tracks if an unpaid link is included within it
- Ticket halls located directly adjacent to the public realm can help extend and activate the public realm so that it flows directly into the station
- Entrances at street level provide opportunities for station retail

The public realm can support the way the station relates to the local area by:

- Reducing the severing effect of the tracks by providing additional connections and maximising the space available for pedestrians
- Enhancing the environment through lighting, the creation of active frontages and other improvements
- Optimising the connection between the interior of the ticket hall and the wider street network

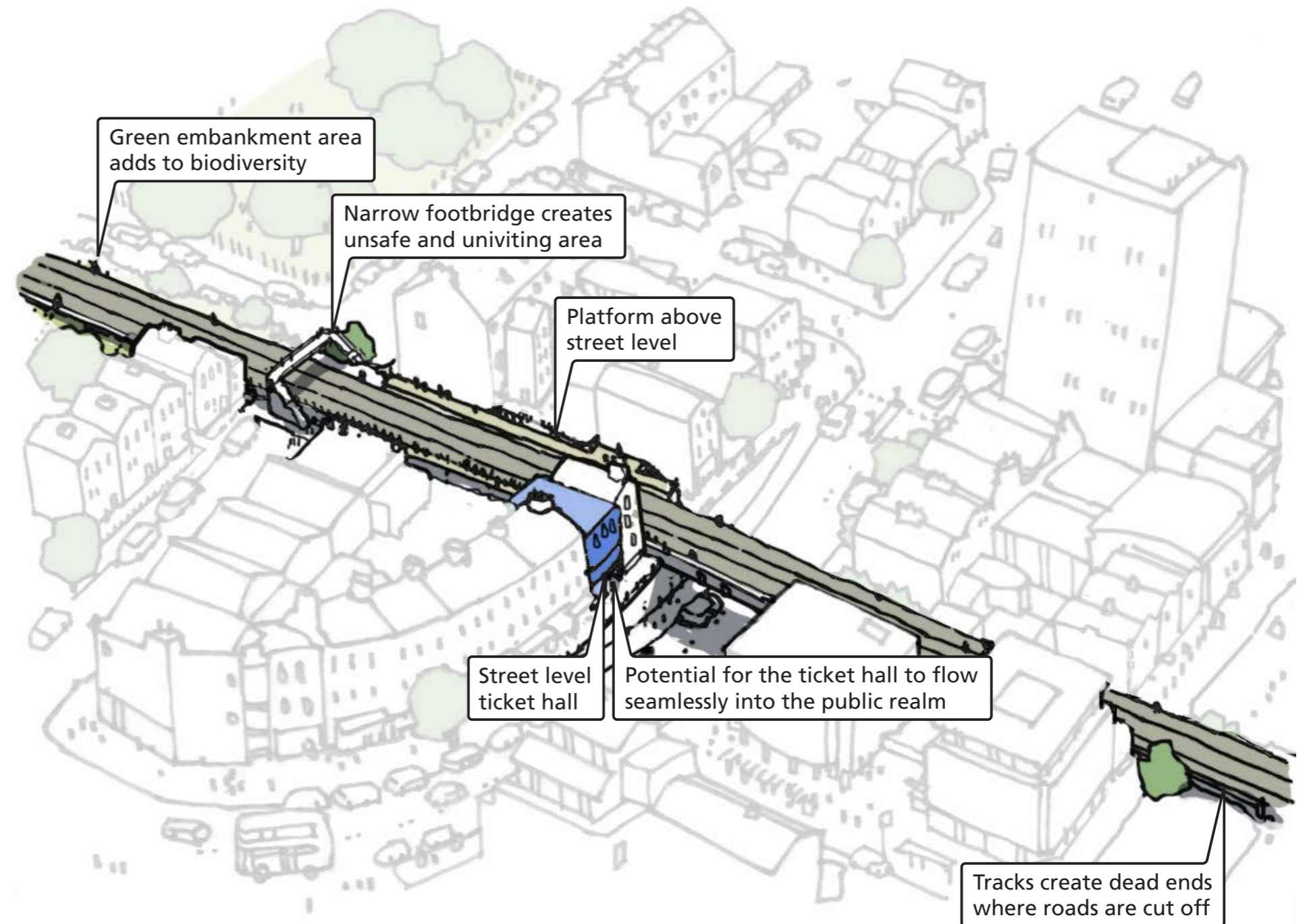


Figure 4.1. Rail at or near to ground

Further guidance (see section 7.4)

• Ref. no. 4

Viaduct rail – a rail station that is raised above ground by a structure that allows some physical connections at ground level beneath the tracks. For example Gallions Reach DLR and Shoreditch High Street Overground.

This physical form can create the following challenges and opportunities:

- The tracks can create barriers to movement and overshadow spaces
- Ticket halls are often raised up away from the street and accessed by simple entrances or staircases, creating less presence at street level and causing difficulties for some groups of people
- Viaducts tend to have no-development zones either side of the tracks
- Viaducts often create unique spaces beneath them that can be used in innovative ways and can unlock commercial revenue
- Viaducts normally allow greater movement at street level than street-level tracks
- Historic railway arches, if celebrated, can add to the character of an area

The public realm can support the way the station relates to the local area by:

- Optimising the use of space beneath the viaduct to create public realm, community and commercial uses
- Enhancing the spaces below the viaduct through lighting and other improvements
- Improving visibility of the station and street level

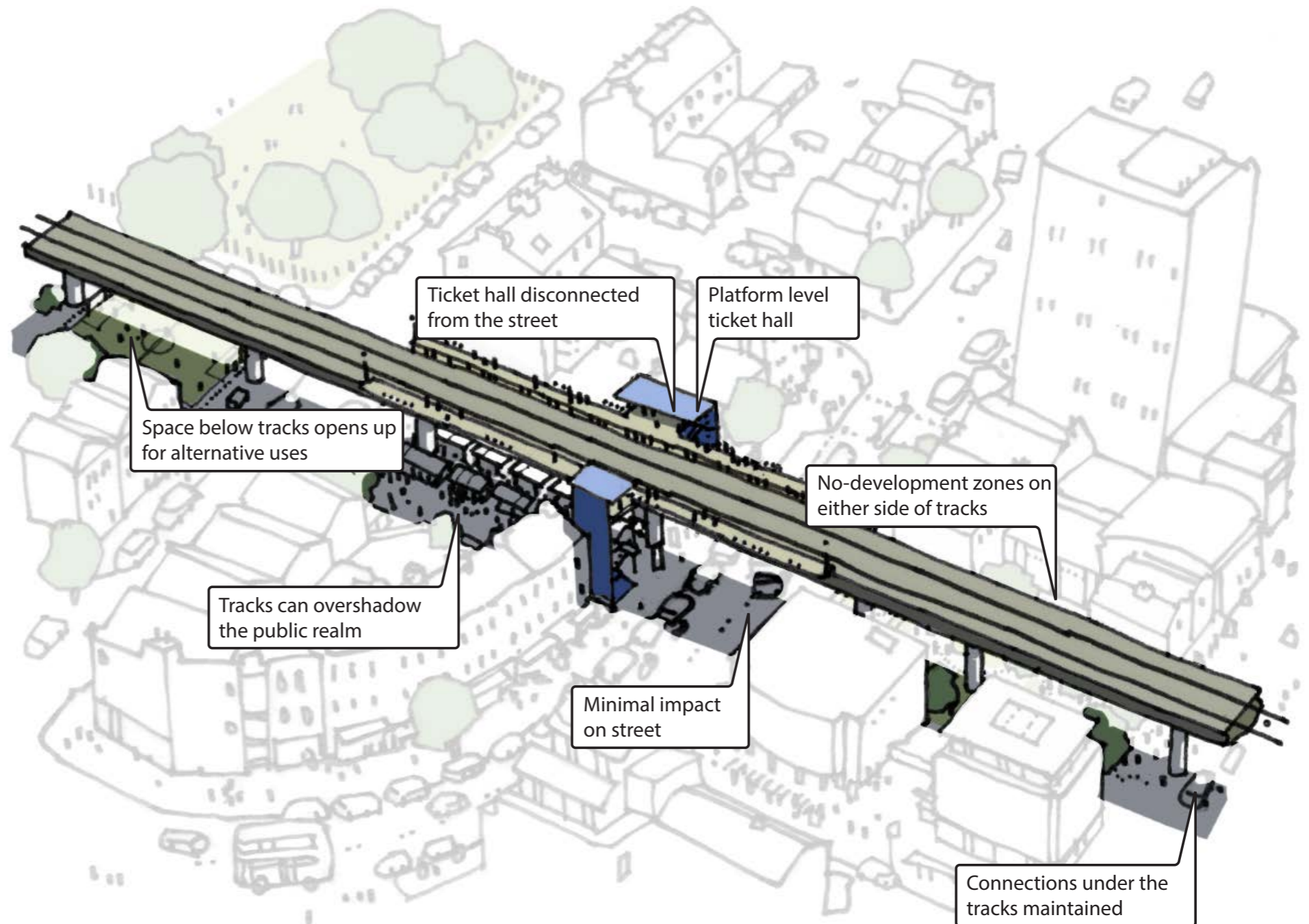


Figure 4.2. Viaduct rail

Underground rail – a rail station that is below ground level with only the station entrance visible above ground. For example Oxford Circus and Clapham South.

This physical form can create the following challenges and opportunities:

- The presence at street level can sometimes be limited due to a lack of visible infrastructure
- Portal entrances can create challenges for certain groups of users and are the hardest to fully integrate into the public, but they also have a minimal negative impact on the public realm due to minimal land take
- Surface infrastructure such as substations, vent shafts and louvres may need to be integrated into the surrounding streets or buildings
- Tunnels may run at a shallow depth beneath the road, putting constraints on what can go above them

The public realm can support the way the station relates to the local area by:

- Absorbing any above-ground impacts of the underground infrastructure
- Ensuring appropriate presence of entrances at street level
- Supporting the way the street flows into the station interior

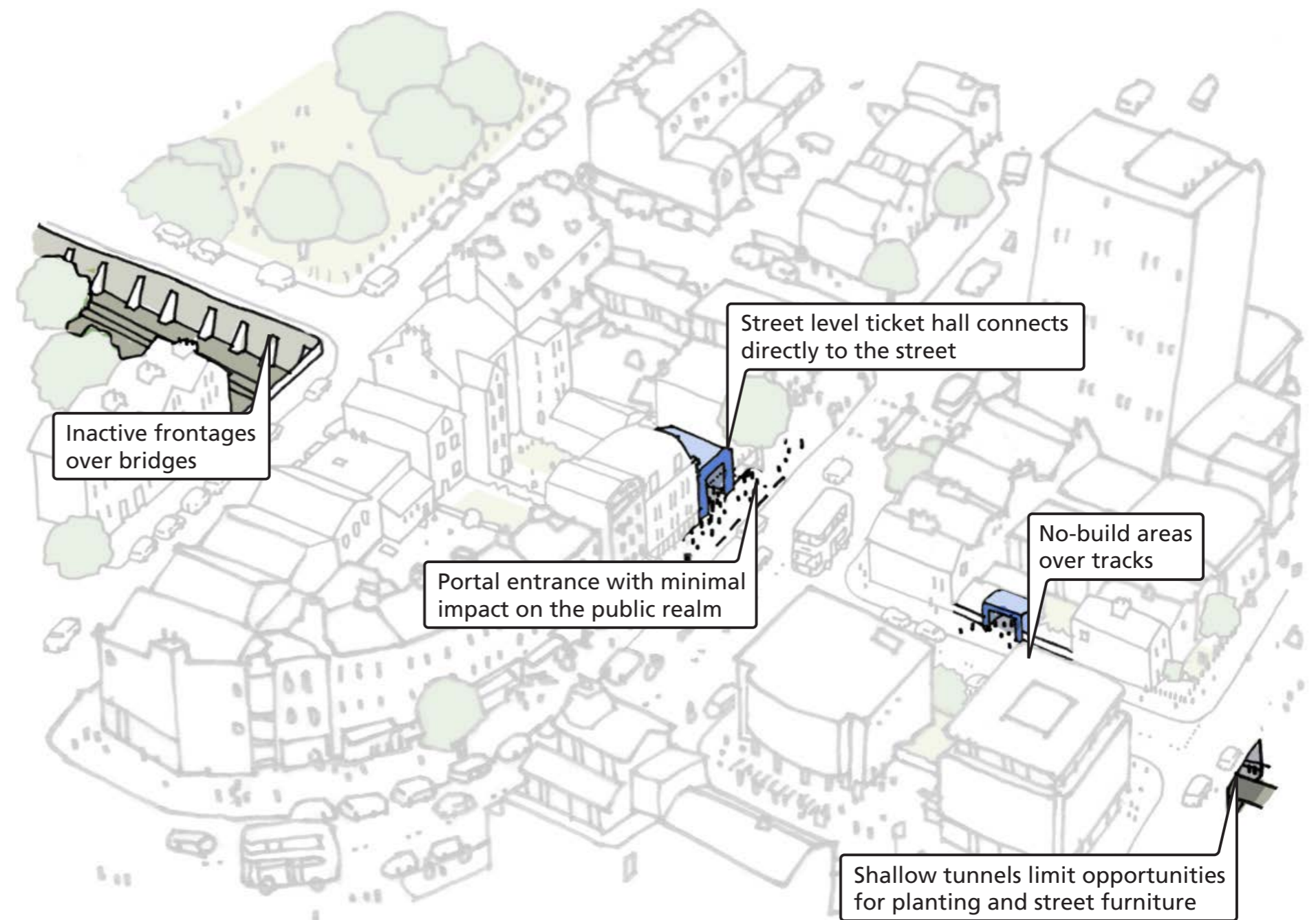


Figure 4.3. Rail below ground level

Further guidance (see section 7.4)

• Ref. no. 1

Street-integrated – a station which serves modes of transport that are fully integrated into the street network such as bus and tram stations. For example, Church Street tram stop or Vauxhall bus station.

This physical form can create the following challenges and opportunities:

- Infrastructure needs to be integrated into the street and can cause barriers to pedestrians and vehicles
- There is an opportunity to create a more seamless connection between the station and the street due to multiple or continuous entrances
- Safety infrastructure may need to be included such as guard railings
- Some form of weather protection is often useful or required
- Additional activity is often generated in the public realm, creating a safer and more vibrant place
- The visible presence of the transport on the street aids with way-finding and orientation
- Street infrastructure may provide additional opportunities for advertising

The public realm can support the way the station relates to the local area by:

- Integrating platforms and other infrastructure into the street as much as possible
- Minimising the need for excessive safety infrastructure by designing the spaces to be inherently safer
- Providing adequate space for pedestrians to minimise the impact of infrastructure on flows
- Enabling pedestrian desire lines to be maintained

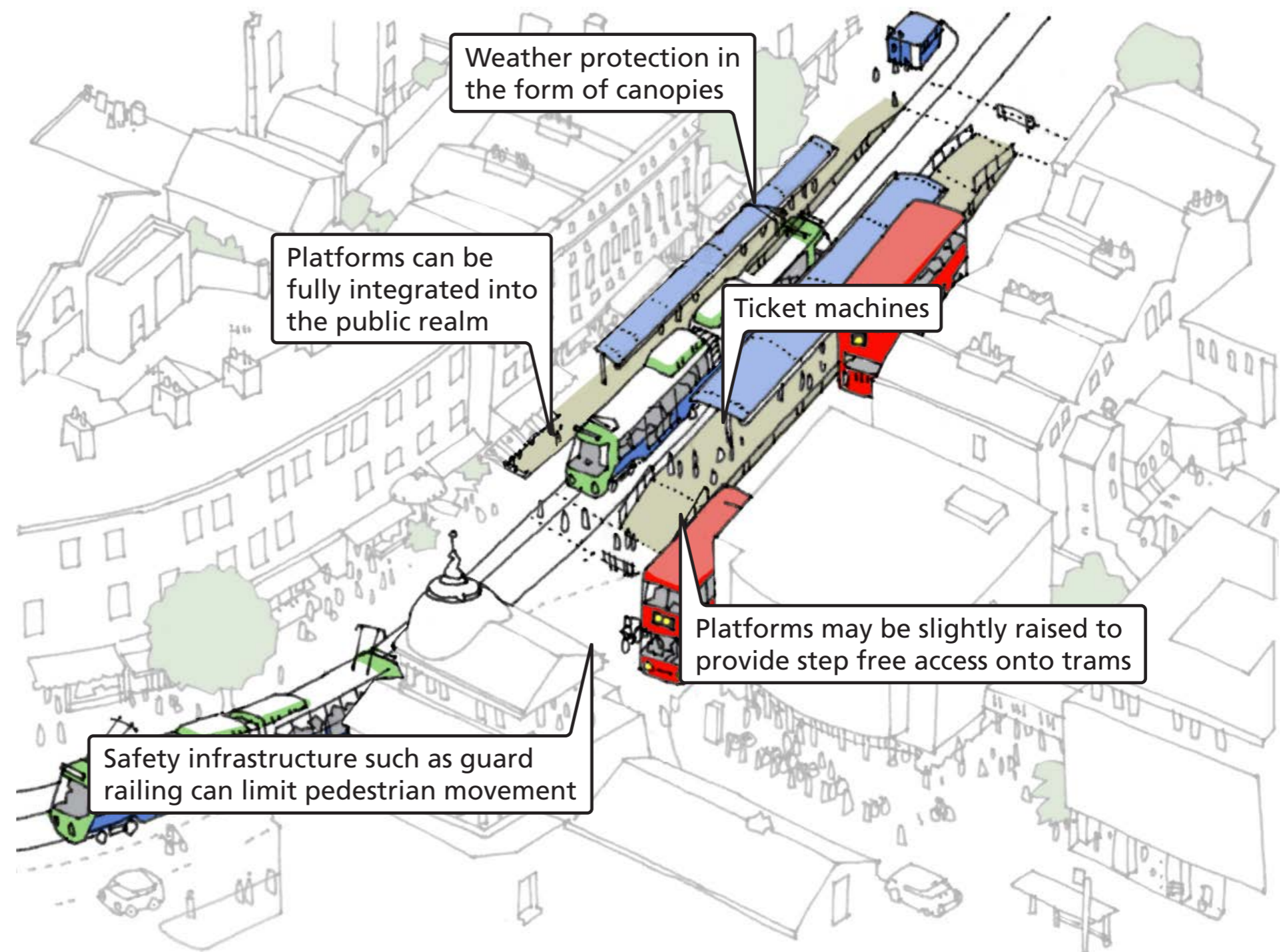


Figure 4.4. Street-integrated station

Further guidance (see section 7.4)

• Ref. no. 15

River piers – a pier that serves commuter and/or tourist vessels.
For example, Tower Pier and Greenwich Pier.

This physical form can create the following challenges and opportunities:

- The pier may rise and fall with the tide creating challenges for visibility and accessibility
- The entrance is likely to be directly off a street or a walkway and through the river wall
- Piers are often in exposed locations and require additional weather protection and shelter for waiting passengers
- Access can be difficult for people with reduced mobility especially at low tide when access ramps are at their steepest
- Piers are often remote and poorly signposted from main stations
- Space can sometimes be gained from the river to make piers less constrained compared to other stations
- Services are generally less frequent compared to other modes of transport which can result in longer dwell times and support commercial activity

The public realm can support the way the station relates to the local area by:

- Enhancing the street presence of the pier
- Optimising accessibility to the pier
- Providing weather protection for passengers
- Optimising wayfinding to and from other transport infrastructure and local destinations
- Providing River Services customer information

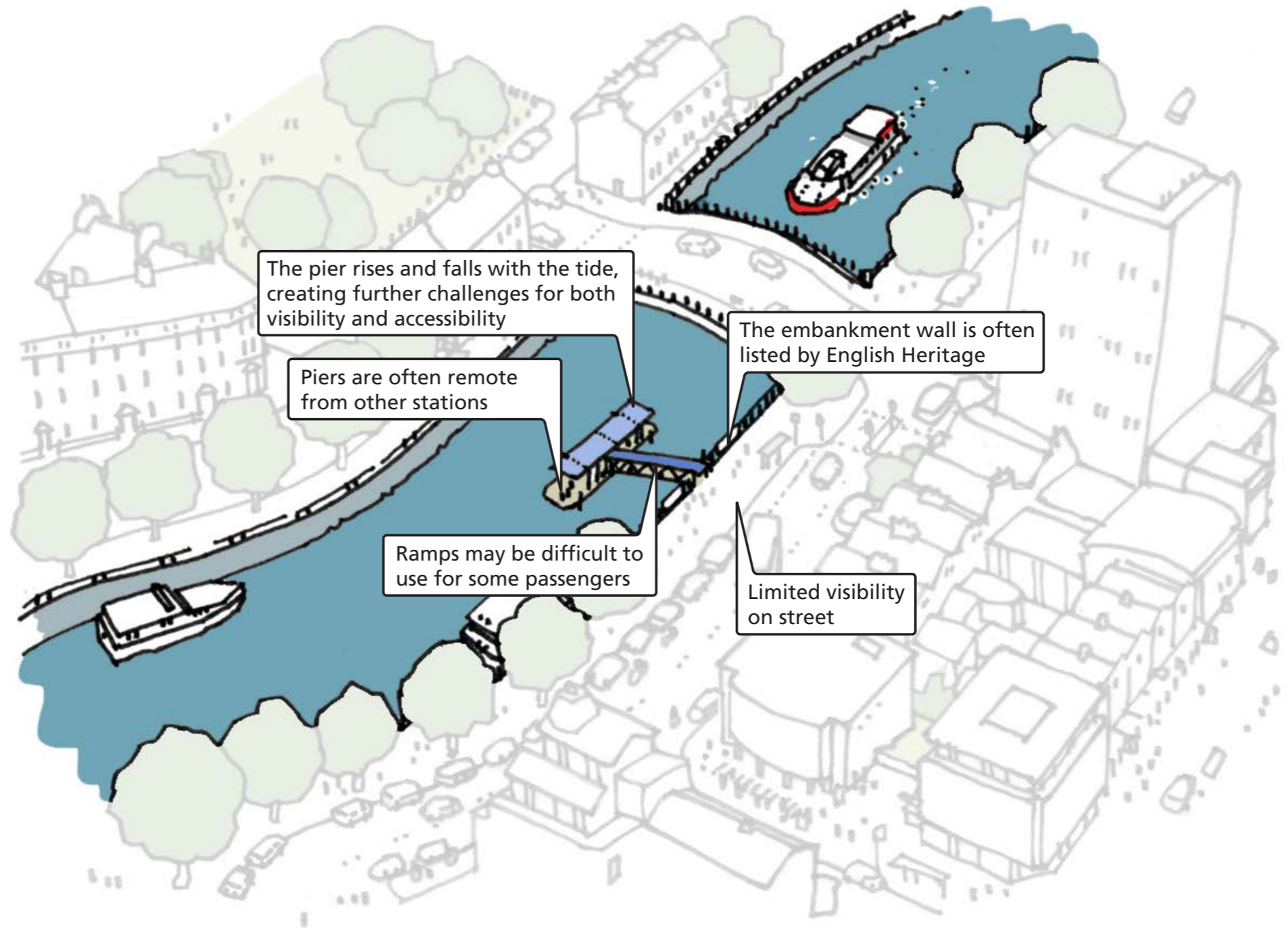


Figure 4.5. River pier

4.2 Station architecture

The style and architecture of stations varies greatly across the Capital. This is a result of the technology and prevailing fashions of the era in which the station was built, the policies and styles promoted by the commissioning authority and the varying responses to each context. Despite, and in part due to this variety, transport architecture in London is well known around the world.

Transport architecture

Station architecture can contribute to the transport, place-making, community and commercial objectives of the public realm and can make a particularly strong contribution to local distinctiveness and community identity within an area. A number of similarities can be recognised in the architecture of many of London's best stations including:

- Functional design that is intended to be fit-for-purpose and passenger focused
- Use of high-quality and robust materials
- The presence of a strong brand identity
- Style and expression which reflects the period of its construction
- Bold architectural statements intended to build on or create a local identity

Improvements to the public realm at stations should look to enhance the setting of the station by protecting these qualities. Where appropriate these qualities should also be reflected in public realm design. Particular care should be taken in designing public realm at stations with heritage value.

Heritage

English Heritage has designated many of TfL's stations as being heritage assets of architectural and historic importance – some are protected by the highest Grade I or II* listed status denoting their outstanding national importance. Many newer stations such as those on the Jubilee line extension may become designated in the future. Those that are not listed are still often recognised by the local authority as having local historic importance and are locally listed or located within a conservation area. This context creates statutory, functional and aesthetic opportunities as well as constraints for the design of the public realm. The public realm should be developed in a way that protects and enhances the station buildings and their settings, both aesthetically and functionally.

It should be noted that the original design of many stations included a carefully planned landscape that set the station in its context. While much of the original landscape design may have been eroded over time, designers should consider the value in reinstating original features when improving the public realm.

There are a number of key resources, see Further guidance box top right, that should be consulted to understand the heritage significance of a station and how the public realm should duly respond to the heritage asset. Designers should also always consult the design departments of the station operator and/or owner, the local authority conservation officer and English Heritage who have jurisdiction over all listed Underground stations in Greater London.

Further guidance (see section 7.4)

- Ref. no. 8
- Ref. no. 16
- Ref. no. 20
- Ref. no. 32
- Ref. no. 11
- Ref. no. 18
- Ref. no. 24
- Ref. no. 33



Crystal Palace, Overground Line



Canary Wharf, Jubilee Line

4.3 Transport operators

The public transport system in London is made up of several types of transport under a range of brands and operators. Certain elements of the relationship with the public realm may change depending on the specific operator.

London Underground (LU)

LU is operated by TfL and its services extend across the whole of the Capital. Stations are underground, above ground and on viaducts.

Underground stations tend to present the following opportunities and challenges for the public realm:

- The numbers of passengers tend to be much higher than at other stations
- Buildings and internal spaces are required to adhere to specific obligatory standards for safety and security
- Many stations have heritage value and are protected by listed status

London Overground

London Overground stations are normally operated by TfL and owned by Network Rail, although a number are both managed and owned by TfL. The network extends to the whole of the Capital and includes stations that are underground, above ground and on viaducts.

Overground stations tend to present the following opportunities and challenges for the public realm:

- Many stations are in more suburban areas and will face challenges specific to this type of area
- Some older stations have heritage value and access difficulties that may need to be overcome
- Stations will need to comply with Network Rail standards and guidance

Docklands Light Railway (DLR)

DLR stations are normally owned by TfL but operated by a third party. The network is focused primarily in east London. Stations are normally on viaducts but there are also some underground and above-ground stations.

DLR stations tend to present the following opportunities and challenges for the public realm:

- Many serve lower density areas and carry fewer passengers than other services, making them quieter, simpler in design and with fewer facilities
- Many are unsupervised and the public realm can help make a station feel safe and secure
- Many were built to drive regeneration in former industrial areas and the public realm can support this role

London Tramlink

Tram stations are owned and operated by TfL but are often on local authority streets. The network is focused on Croydon and extends to Wimbledon, Beckenham and New Addington. Lines and stations are either integrated into the street or use old railway lines.

Tram stations tend to present the following opportunities and challenges for the public realm:

- The tracks are often fully accessible to the public, requiring a different approach to safety
- Most stations are unsupervised and the public realm should help make the station feel safe and secure

Further guidance (see section 7.4)

- Ref. no. 6
- Ref. no. 17
- Ref. no. 18
- Ref. no. 20

Further guidance (see section 7.4)

- Ref. no. 13

Further guidance (see section 7.4)

- Ref. no. 4

London Buses

London Buses is part of TfL and owns most bus stations. Many are located next to other transport stations, however some are stand alone. In contrast to bus stops, bus stations should be treated as stations in their own right.

Bus stations tend to present the following opportunities and challenges for the public realm:

- Many experience very high numbers of passengers at peak times and the public realm will need to make allowances for queuing, crowding and movement
- Interchange between buses and other modes of transport is often a very important factor for people using buses
- Because they tend to flow more freely into the public realm, issues of land ownership and responsibility for management and maintenance can be more complex
- There are likely to be requirements for bus standing facilities and these need to be considered from the outset

Further guidance (see section 7.4)

- Ref. no. 1

National Rail

Most suburban rail stations in the Capital are owned by Network Rail but managed by the operator of the train services. The major London rail termini are both owned and operated by Network Rail. The network includes stations that are underground, above ground and on viaducts.

Network Rail stations tend to present the following opportunities and challenges for the public realm:

- The major termini stations are the busiest and biggest stations in the country and will have many unique challenges relating to passenger numbers and the scale of infrastructure. The design of the public realm is crucial to their success in serving London
- Many smaller stations are in more suburban areas and will face challenges specific to this type of area
- Some have a heritage value and some are protected by listed status
- Network Rail standards and guidance need to be adhered to

London River Services

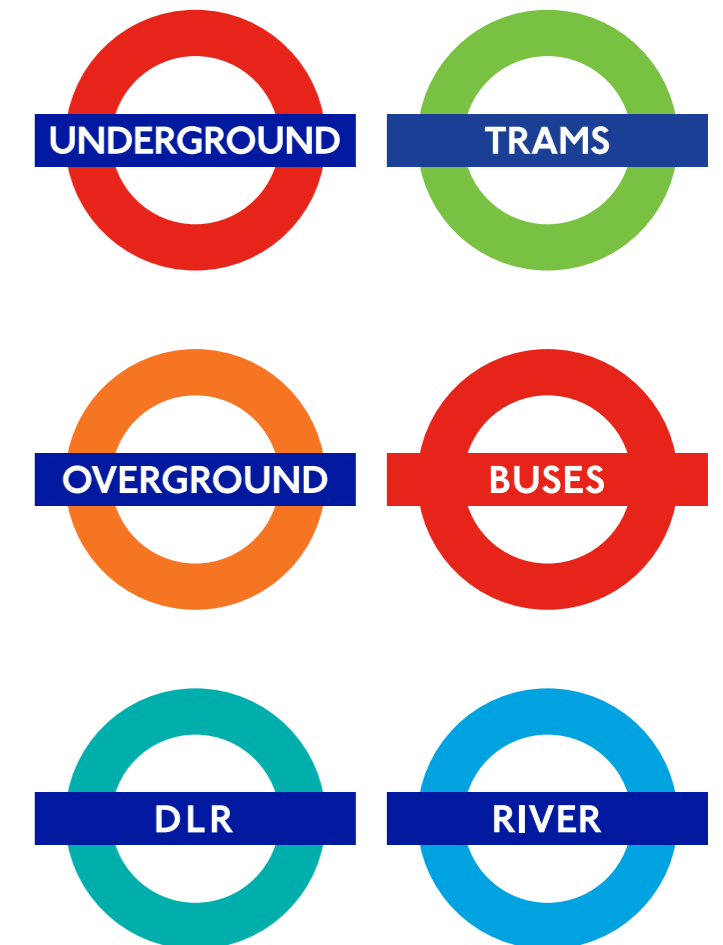
London River Services (LRS) is part of TfL and operates some (but not all) central London piers, providing access to both commuter and tourist services. A number of piers are owned and operated by third parties, or the operators of the boat services themselves.

LRS piers tend to present the following opportunities and challenges for the public realm:

- LRS do not operate all the services that use them
- There are often multiple service operators requiring space for information and ticket sales

Further guidance (see section 7.4)

- Ref. no. 15



4.4 Internal station layout and function

London's population is growing and putting the transport system under increasing pressure. Stations therefore need to expand, evolve and perform new and more flexible roles.

The public realm can support this evolution by blurring the boundary of where the station ends and the street begins. By considering internal and external spaces together, an expanded virtual station can help to optimise transport function.

The internal station layout can present the following challenges and opportunities:

- At peak periods many stations are heavily congested and require more space for queuing and delivery of information
- If there is disruption, spaces can fill up very quickly
- Spaces can be very busy at peak times but empty at quieter times
- The location of the gate line is sometimes driven by underground constraints rather than the location of street entrances and therefore may not align

The public realm can support the operation of the station by:

- Creating space near the entrances to absorb congestion within the station during peak times
- Creating external routes that take into account the internal layout of the station, not just the entrances
- Accommodating station facilities such as ticket machines, information and signage where appropriate

Further guidance (see section 7.4)

- Ref. no. 6
- Ref. no. 17
- Ref. no. 20
- Ref. no. 13
- Ref. no. 18
- Ref. no. 34

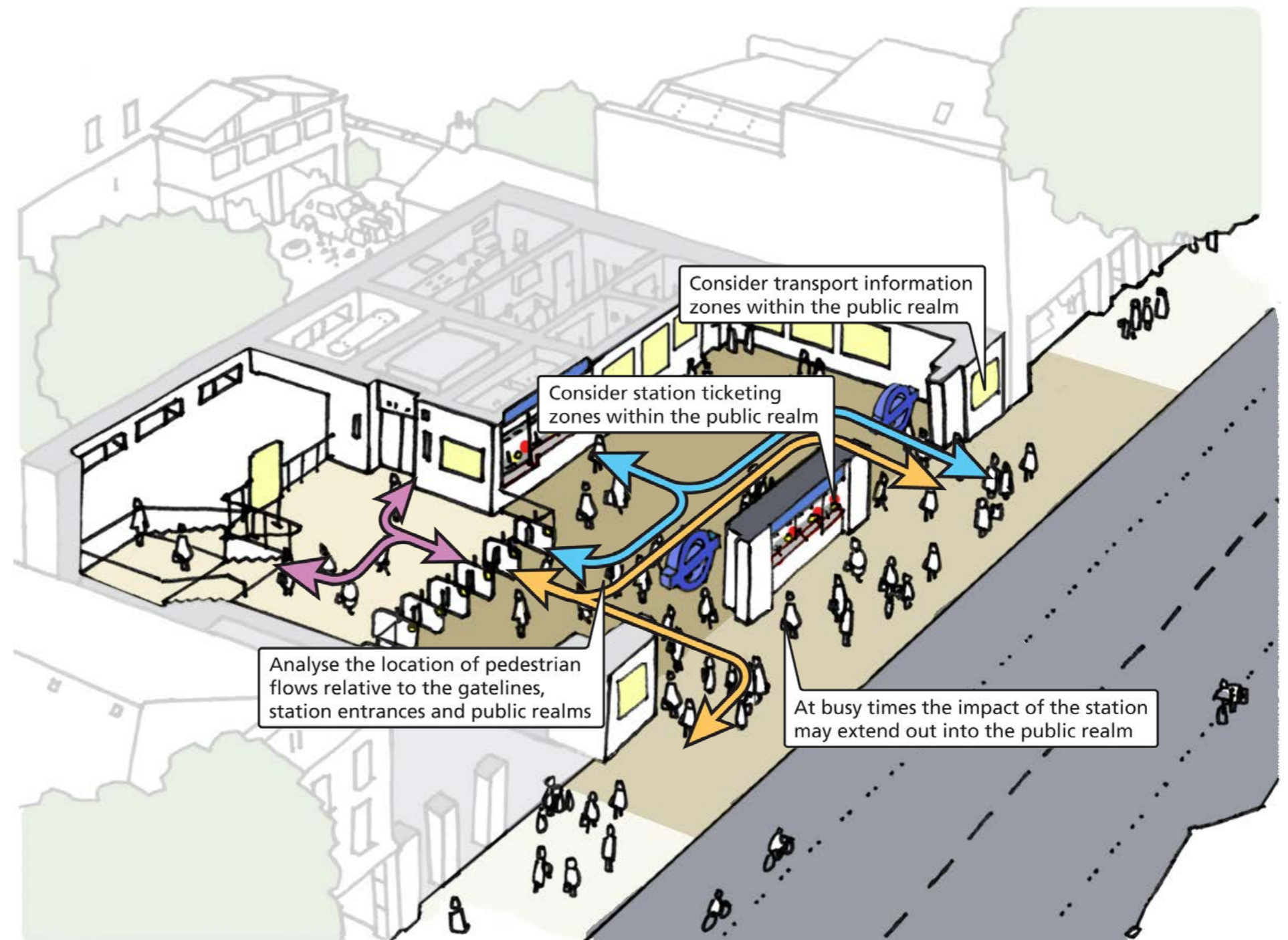


Figure 4.6. Station layout and function

4.5 Station layout, transport interchange and station access

The public realm provides the connection between the inside of the station and the local transport interchange points as defined in Section three. Designers should consider the types of transport, access points, interchange routes and the amount and position of information required for users making interchanges.

The station layout presents the following challenges and opportunities for transport interchange:

- There may be high flows of passengers moving between different modes of transport at peak times
- Queuing passengers may generate congestion at transport access points such as bus stops and taxi ranks
- The internal layout of the station may not match the orientation or layout of other transport access points
- Transport access points may not be directly outside the station and may not be visible from the station entrance
- Space may be limited for those trying to orientate themselves for their connection
- Passengers waiting for an interchange may prefer to wait inside the station during bad weather
- Interchange may not involve the main station, for example bus-to-bus interchange may be a significant element of the public realm

The public realm should support transport interchange by:

- Creating the feeling of a single, integrated and consistent transport system
- Ensuring simple, direct, clutter-free, visible and step-free routes between transport access points that are accessible to all
- Creating – where possible – new, more direct and wider connections between transport access points
- Locating transport access points as close to the station entrance as possible, while still allowing enough space for movement and queuing
- Considering the most appropriate location for travel and wayfinding information both in and outside the station

Further guidance (see section 7.4)

- Ref. no. 6
- Ref. no. 9
- Ref. no. 10
- Ref. no. 12
- Ref. no. 13
- Ref. no. 14
- Ref. no. 17
- Ref. no. 22
- Ref. no. 34
- Ref. no. 36
- Ref. no. 38
- Ref. no. 39

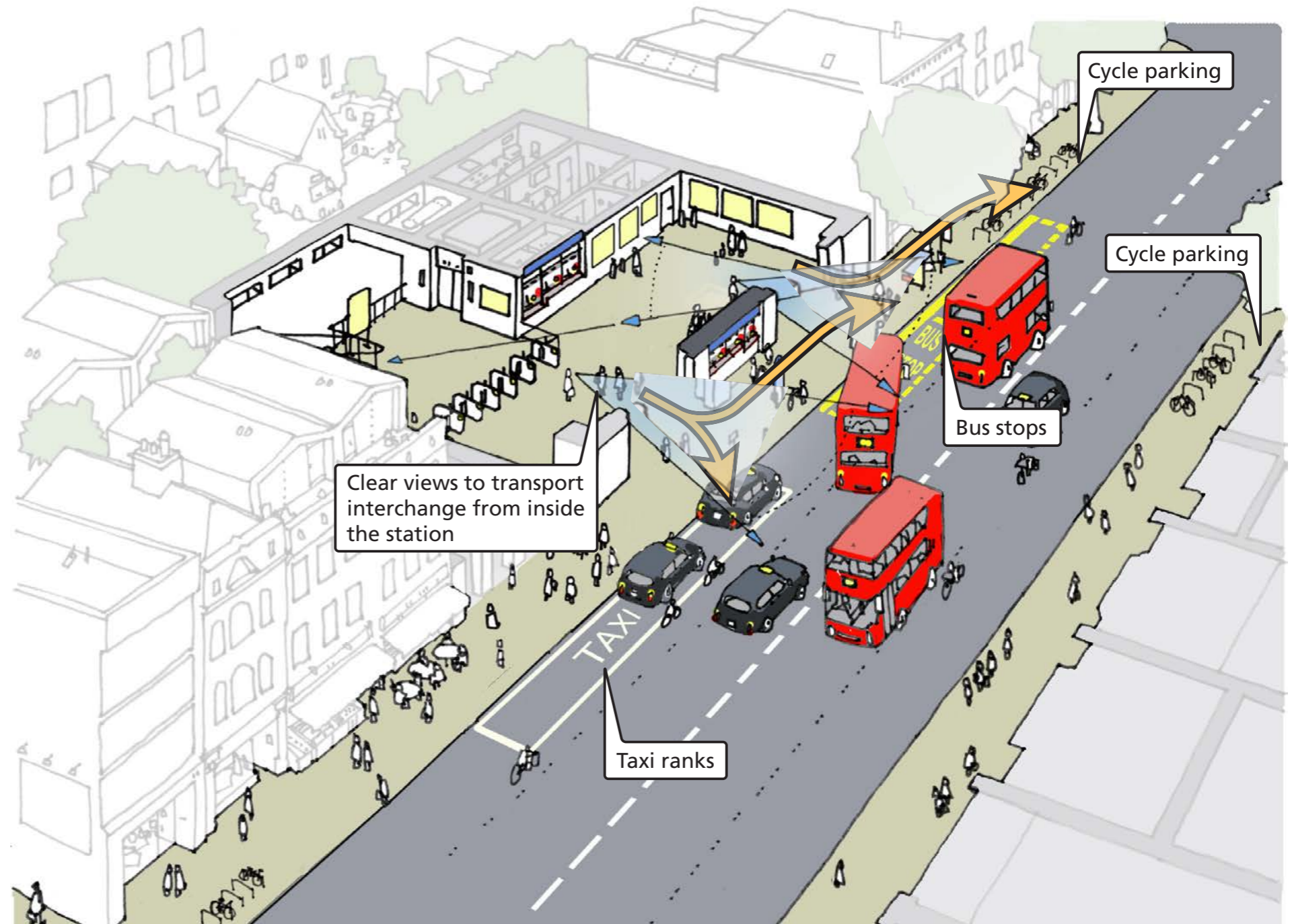


Figure 4.7. Station layout and interchange

Cycle access

Providing good access to stations for cyclists and well-located, secure and fit-for-purpose cycle parking is important for promoting sustainable transport and modal integration. Although there are currently fewer people cycling than those using other forms of transport, the share has been increasing significantly and is likely to increase further in the future.

Short-stay cycle parking can be provided on the street or in the public realm provided that it does not clutter the footway. It should be located as close to the station entrance as possible, be well overlooked and allow for cycles of all types to be securely locked.

Long-stay cycle parking (with secure entry) should be provided where possible. There is likely to be more demand for long-stay cycle parking at gateway and local stations. While this type of parking can be further away from the entrance, it should still be as close as possible and should be well overlooked and feel safe to access. Locations both in and around the stations should be considered.

If the station is within the Cycle Hire scheme area, space for a docking station should be considered. This should be easy to locate from the station entrance.

The amount of cycle parking should be identified by considering the type and location of the station and analysing levels of demand. Future growth and planned upgrades to the cycle network in the area should be taken into account. Suitable amounts should be agreed with TfL.

Consideration needs to be given to how cycle users get from surrounding streets to the cycle parking. These connections should avoid long stretches where cyclists have to wheel their bikes across pedestrian areas.



Ensuring access for people with bikes



Secure cycle parking

Further guidance (see section 7.4)

• Ref. no. 12 • Ref. no. 36 • Ref. no. 34 • Ref. no. 38



Cycle parking



Cycle Hire scheme

Further guidance (see section 7.4)

- Ref. no. 9
- Ref. no. 34
- Ref. no. 36

Taxi and private hire vehicles

Taxi ranks provide a vital service for many people, particularly later in the evening, at local stations and for disabled passengers. There is a particular value in providing taxi and private hire infrastructure at local and gateways stations and at stations where a late night service operates. However, where there is sufficient space, taxi and private hire infrastructure should be considered for all stations' public realms.

The public realm should support safe, secure and well-lit waiting areas for taxi customers and appropriate infrastructure such as TfL shelters and taxi poles.

Both taxis and private hire vehicles require suitable space to set down their passengers at the station. This space should enable a clear, step-free route to the station and walking distance should be minimal.

Both pre-booked taxis and private hire vehicles may need to wait for short periods to pick up their passengers. If this is not possible on the surrounding highway then space may need to be allocated for this purpose. However, waiting restrictions and appropriate enforcement should be placed on any space used for this purpose to ensure it is used correctly.

Private vehicles

It may be appropriate to provide some facilities for private vehicles. In general, parking should only be provided in outer London and only when all pedestrian, cycle and public transport facilities are fully provided for. Facilities and waiting areas should be within view of the station entrance, well-lit and feel safe and secure. The balance between the attraction of private vehicles and the need to encourage people to use public transport or walk from the station should be considered.

The public realm should support safe access to private vehicles while balancing the needs of other users, and prioritising pedestrians, cyclists and public transport users.

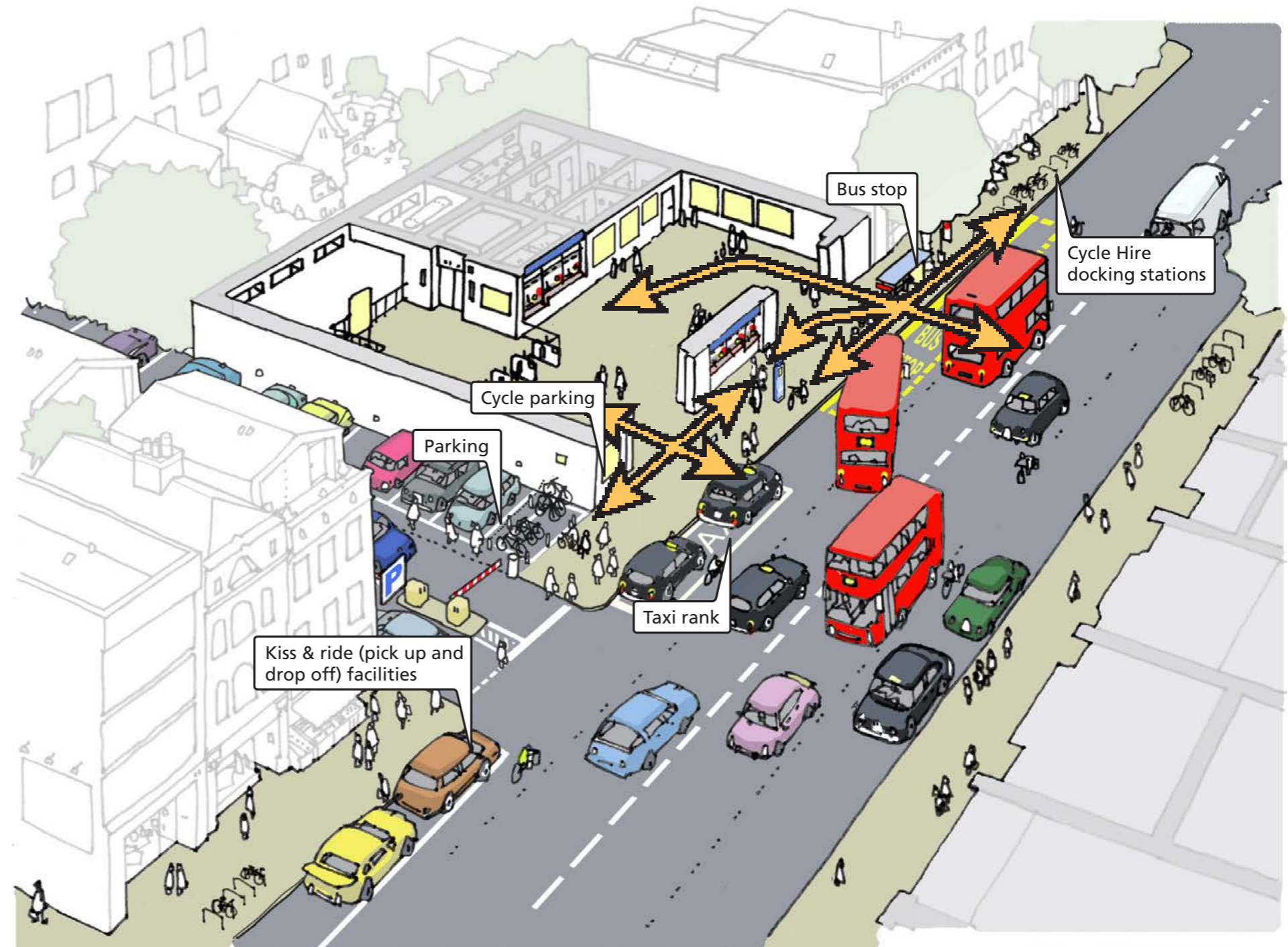


Figure 4.8. Station access

4.6 Commercial opportunities

Station retail and other commercial opportunities can provide convenient services to passengers, help activate the public realm and provide secondary revenue streams. Optimising the relationship between retail, internal and external areas can help to maximise the benefits.

The following commercial opportunities should be considered at a station:

- Retail that is appropriate to the station and local area
- Temporary and pop-up retail
- Advertising
- Cash machines
- Click and collect lockers
- Other commercially let premises

The type of commercial opportunity will depend on the sort of destination that the station serves. The most valuable commercial opportunities are likely to be in central London stations, particularly at gateway and attractor stations. The high numbers of passengers at metropolitan stations also present commercial opportunities, however these need to be balanced against the needs of the transport system. While retail and commercial opportunities at local stations often have limited value, they are also the locations where they can have the most positive impact on the local area.

Further guidance (see section 7.4)

- Ref. no. 6
- Ref. no. 13
- Ref. no. 18
- Ref. no. 9
- Ref. no. 17
- Ref. no. 20

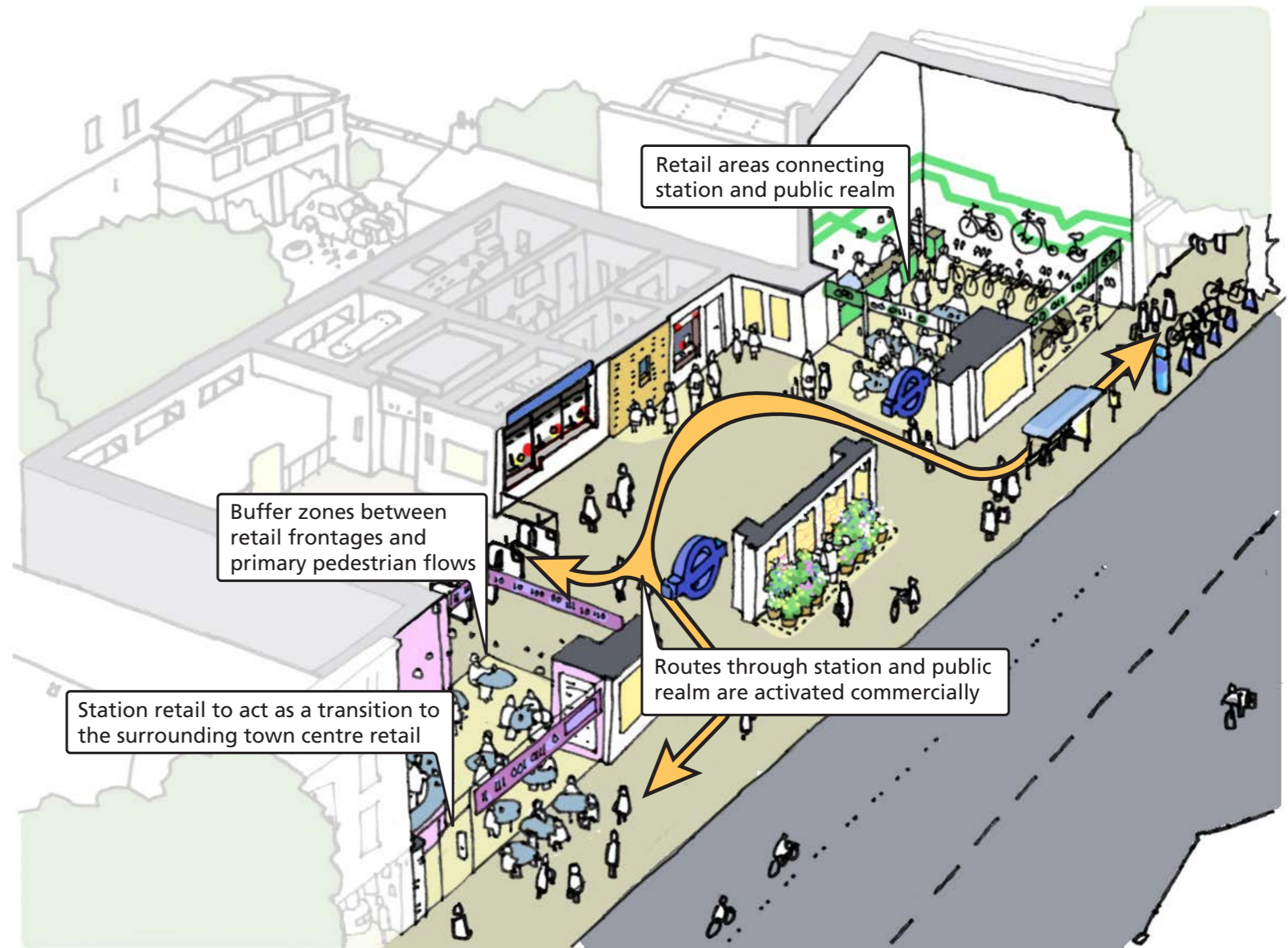


Figure 4.9. Station commercial opportunities

When selecting relevant commercial opportunities, the following challenges and opportunities should be considered:

- They require footfall to be viable but can also create additional footfall that helps activate spaces and makes them feel safer. They can also help divert footfall from congested areas
- A well-chosen mix of retailers can help integrate the station with the local area and enhance the sense of place
- Retailers may require access for deliveries, servicing and refuse collection, all of which may have an impact on the transport functions and public realm
- Different commercial opportunities are appropriate to different stations and areas

The public realm should support commercial opportunities by:

- Ensuring key routes are kept clear and wide enough to accommodate the expected flows
- Connecting retail areas within the station with those outside, creating a transition from station and passenger-focused retail to town centre retail
- Creating routes and permeability that generate footfall through areas that can be activated commercially
- Focusing commercial activity close to primary flows but with a sufficient buffer zone to avoid impeding movement
- Ensuring that retail facades are well designed and well managed
- Considering the flexibility of space to provide opportunities for kiosks, markets or other temporary units in the public realm

TfL Commercial Development

TfL Commercial Development has an important role in most TfL stations and has a significant contribution to make to the customer experience. It is responsible for all non-fare based TfL revenue which includes (but is not limited to) retail, advertising, sponsorship, property rentals, as well as for managing all of TfL's non-operational property interests. Commercial Development's role is to improve the customer offer while maximising the short and long-term value of TfL assets in order to generate funds which are reinvested in the transport system.

When considering station retail or other secondary revenue possibilities, TfL Commercial Development should be contacted at the earliest opportunity.

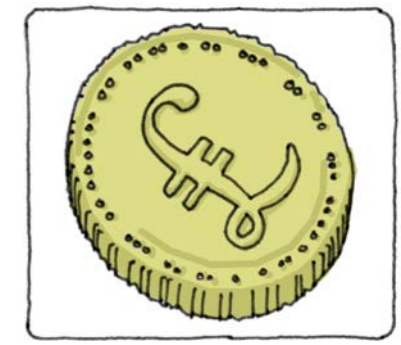
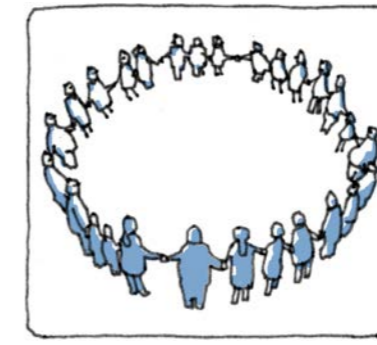


Photo 4.7: Commercial development opportunities

Summary: The station

This section has described what is important about the station itself and its relationship with the public realm.

The table to the right summarises the kind of questions that are important when understanding the relationship between the local area and the station.



Transport	Place-making	Community	Commercial
How does the physical form of the station impact on the surroundings?			
<p>How does the form support the transport system?</p> <p>For example: How the transport is integrated into the street</p>	<p>What is the impact of the form on the sense of place?</p> <p>For example: The presence of distinctive arches</p>	<p>What are the social and community impacts of the form?</p> <p>For example: A severance of the community by the tracks</p>	<p>How does the form create commercial opportunities?</p> <p>For example: The space in railway arches or other areas for businesses</p>
How can the public realm support and enhance the architecture of the station building?			
<p>How does the architecture impact on station operation?</p> <p>For example: Wayfinding elements like roundels, and the blue frieze</p>	<p>How does the architecture contribute to the sense of place?</p> <p>For example: An architectural style that is associated with the area</p>	<p>Does the architecture of the station play a role in the local community?</p> <p>For example: The community may associate itself directly with the architecture</p>	<p>How can the architecture enhance the commercial value?</p> <p>For example: The quality of the architecture may enhance the value of retail</p>
How do the transport operator's requirements impact upon the public realm?			
<p>What specific requirement does the operator have?</p> <p>For example: Safety requirements or guidance</p>	<p>How does the transport operator influence the sense of place?</p> <p>For example: Station branding or a sense of heritage</p>	<p>How does the transport operator support community benefit?</p> <p>For example: Through regeneration or other links to the community</p>	<p>What is the operator's strategy for secondary revenue?</p> <p>For example: Retail, advertising or to focus on the transport system</p>
How does station layout relate to and impact upon the public realm?			
<p>What forms of access are appropriate at the station?</p> <p>For example: Pedestrian only or also cycle, taxi and private vehicle</p>	<p>Which spaces are valuable for place-making?</p> <p>For example: This might be the space at a particular entrance</p>	<p>How does the station layout promote community benefit?</p> <p>For example: This could be spaces that are used by the community</p>	<p>What types of commercial activity are appropriate at the station?</p> <p>For example: Convenience retail, food and drink, advertising</p>
How can the station design, layout and public realm support the generation of secondary revenue and the local economy?			
<p>How does the type of transport impact commercial opportunities?</p> <p>For example: This could be the type and number of passengers</p>	<p>How can the identity of the place support commercial opportunities?</p> <p>For example: The type of place could make certain retail more valuable</p>	<p>What commercial opportunities can support the community?</p> <p>For example: Certain types of retail or business opportunities</p>	<p>What commercial opportunities would support the local economy?</p> <p>For example: Certain types of retail space</p>

5 Optimising the public realm

This section looks more specifically at the layout of the public realm. The starting point is a summary of the opportunities and constraints covered in the previous sections. This sets the design parameters for judging a balance of movement and place and a basis for laying out the space around the station.

5.1 Design parameters

The first four sections of this document identified the context of the station public realm and the role that it should play in integrating the station with the area it serves. At this point, the context should be summarised as a set of design parameters that are based on:

The destination – an understanding of the role that the station and area plays to London as a whole.

This knowledge should lead to being able to identify the relative importance of transport, place-making, community and commercial objectives based on an analysis of:

- Why people use the station to travel to the place, described as a balance of types of destination – gateway, attractor, metropolitan and local
- What types of users visit the station, what their travel patterns are, when they are there and what their needs are
- How the place will or could change in the future



Figure 5.1. The destination



Figure 5.2. The local area

The local area – an understanding of where people tend to go once they leave the station and where they tend to come from.

This knowledge should lead to a clear set of passenger journeys which people tend to need most often. These should be prioritised according to their importance and be based on an analysis of:

- The local uses and transport interchange nodes that people travel to by foot from the station
- The most important and busiest pedestrian routes from the station to the above locations
- The types of people using the routes and their differing needs

The station – an understanding of how it relates to its immediate surroundings and specifically to the station public realm.

This knowledge is based on an analysis of:

- The physical form of the station
- The station architecture
- The requirements of the transport operator
- The internal and external spaces of the station
- Other forms of access required at the station
- The commercial opportunities available



Figure 5.3. The station

Further guidance (see section 7.4)

• Ref. no. 3 • Ref. no. 22 • Ref. no. 29

The parameters should be listed under transport, place-making, community and commercial objectives. Different stations will prioritise different objectives. An appropriate balance can only be identified by going through the analysis outlined above.

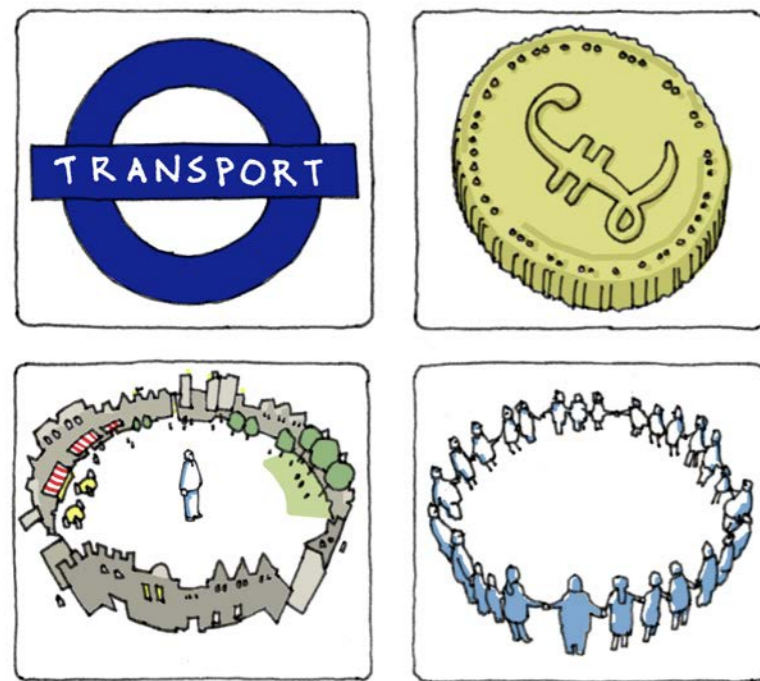


Figure 5.4. Public realm objectives

5.2 Laying out the public realm: Movement and place

All public realm should be designed based on an understanding of what activities are likely to happen in the space. These can be grouped into either movement or place-related activities.

The movement functions of a space should provide easy, efficient and enjoyable passage for all users. The type of movement around stations can vary, for example:

- How the movement is made – is it by a pedestrian, or someone on a bike or in a vehicle?
- The speed and number of people making the movement
- Whether the movement is related to a local connection or a more strategic connection

The place function of a space provides opportunities to use the public realm for a range of formal and informal activities. When looking at this role of the public realm the following need to be considered:

- What activities take place
- Whether people are there as users of the station and whether they have chosen to be there for a certain activity or are in the space incidentally, for example waiting for a connection
- How many people are likely to be doing the activity and for how long

When determining the balance of movement and place for the station public realm, the Road Task Force street types should be looked at together with the following considerations that relate specifically to the space outside the station.



Photo 5.1: Movement-focused public realm



Photo 5.2: Place-focused public realm

5.3 Movement

A station's public realm must balance pedestrian and cycle movement with various types of road traffic movement. Each type must be understood separately, along with the interactions between them and the relative levels of each. An appropriate hierarchy of needs should then be agreed.

All users of stations will be pedestrians within the public realm at some point in their journey, and the total number of pedestrians in the space will almost always outweigh the number of other types of users. Encouraging more pedestrian movement helps to activate the street, reduce congestion on the public transport and road network and provides benefits to an individual's health and wellbeing. Therefore at stations, the public realm must in general prioritise pedestrian movement, followed by cycle and then vehicular movement.

Pedestrian movement

The design of the public realm should enable, encourage and empower people to choose walking for a portion of their journey. This can be achieved by providing:

- The most direct routes possible between key destinations and modes of transport and making them clear and free from physical clutter
- Appropriately dimensioned routes that create a comfortable walking experience even at the busiest times
- Clear sightlines along routes that promote intuitive wayfinding
- Clear wayfinding signage at appropriate locations
- Crossing points that adhere to desire lines and are appropriately dimensioned
- Additional space for conflicting movement routes outside station entrances
- A well-lit and pleasant environment that feels safe and secure at all times

Further guidance (see section 7.4)

- Ref. no. 3
- Ref. no. 10
- Ref. no. 14
- Ref. no. 27
- Ref. no. 29
- Ref. no. 34
- Ref. no. 36

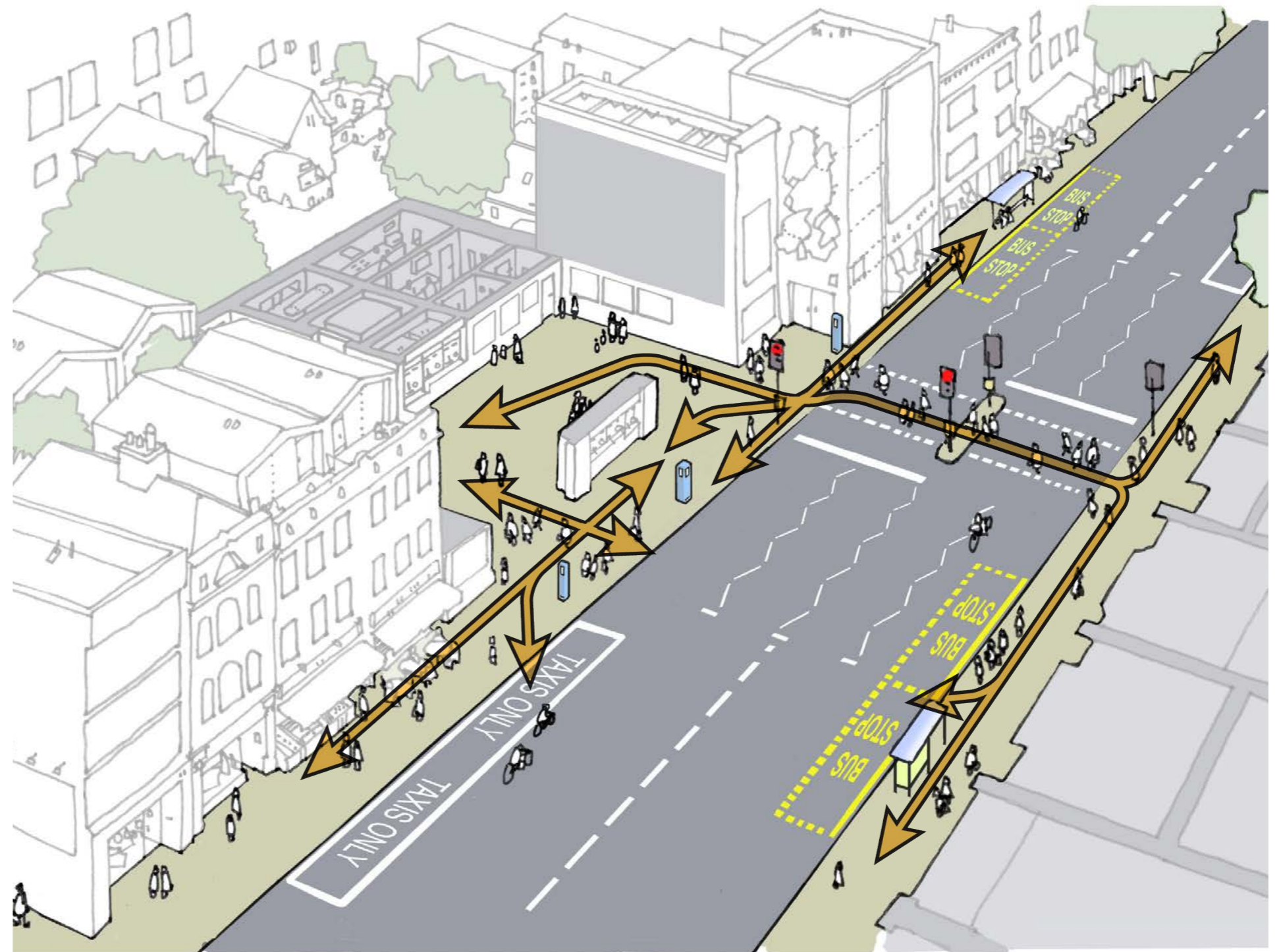


Figure 5.4. Pedestrian movement

Cycle movement

Design of the public realm outside stations should give priority to cyclists over mechanised vehicles by:

- Considering the relationship between cyclists and other road users, and providing protection and segregated cycle routes where possible
- Managing potential conflicts between cyclists and pedestrians on the footway and those using public transport and pedestrian crossings
- Minimising the distance between cycle routes and cycle parking and encouraging cycle users to dismount where there is a need to leave the carriageway
- Allowing for increases in the amount of cycle use in the future

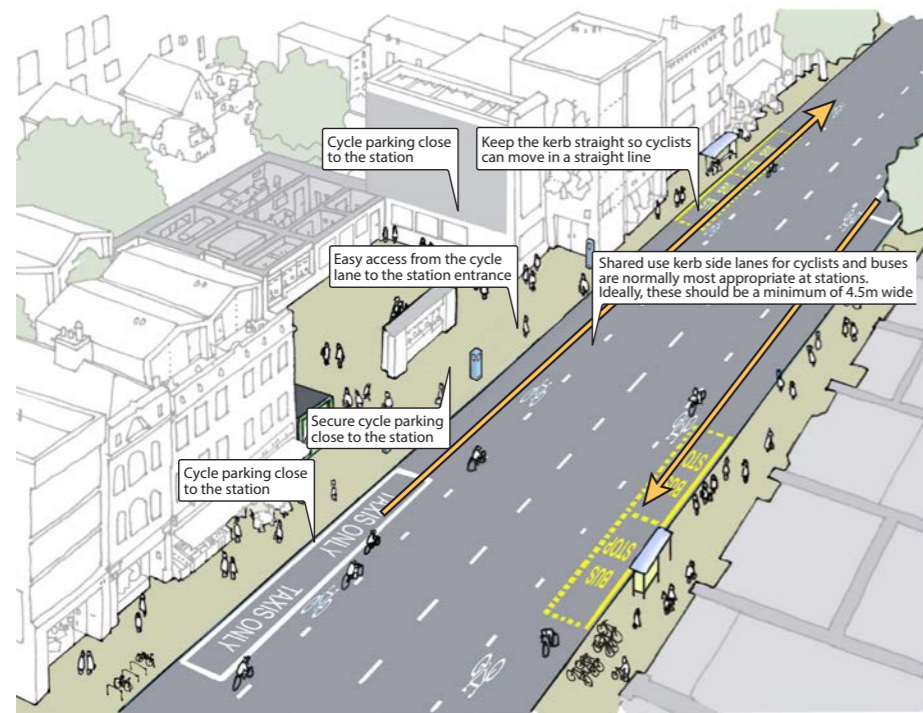


Figure 5.5. Cycle movement

Vehicular movement – public transport

Design of the public realm outside stations should allow public transport to access the station via the pedestrian areas quickly and easily by:

- Ensuring that bus, tram, and where appropriate taxi and private hire passengers can alight from services close to and within sight of the station entrance
- Ensuring that bus and tram interchange takes priority over the needs of private vehicles
- Considering the relationship between bus, tram and taxi infrastructure and cycle users and putting appropriate protection in place
- Managing taxi and private hire access points to the station appropriately so they are as close as possible to a station entrance and have step-free access

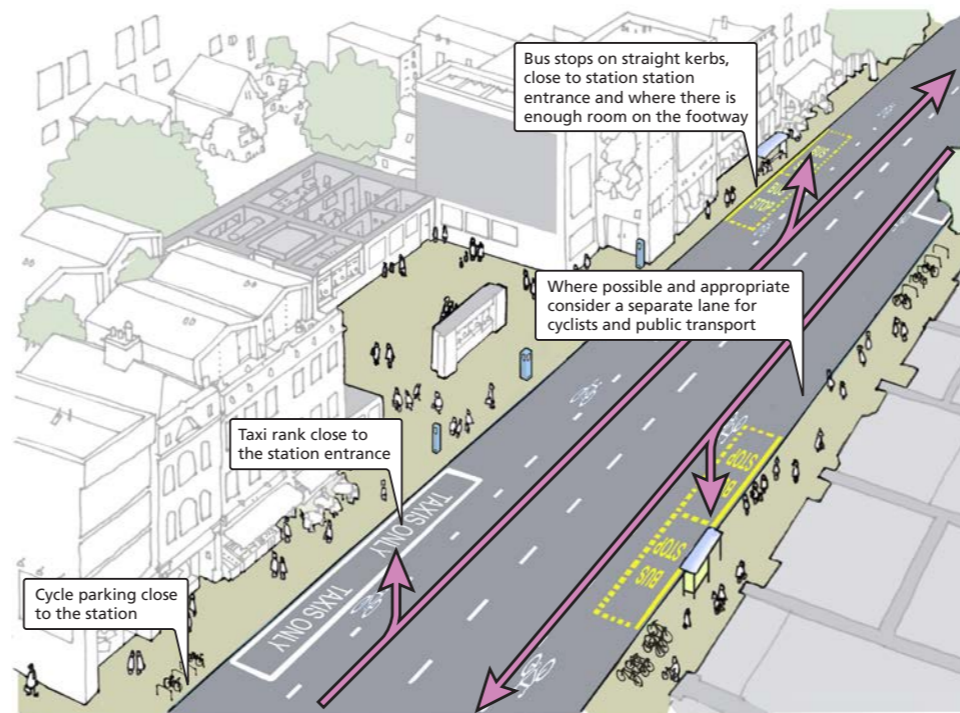


Figure 5.6. Vehicular movement - public transport

Further guidance (see section 7.4)

- Ref. no. 1
- Ref. no. 12
- Ref. no. 34
- Ref. no. 39
- Ref. no. 3
- Ref. no. 22
- Ref. no. 36
- Ref. no. 9
- Ref. no. 29
- Ref. no. 38

Vehicular movement – private vehicles

Private vehicles are a necessary form of transport in the Capital and their impact should be considered carefully. The design of the public realm outside stations should:

- Balance the needs of the station with the needs of motorised vehicles that are passing through or stopping at the station
- Discourage private vehicles from attempting to stop or pick up outside the station where there are no dedicated facilities

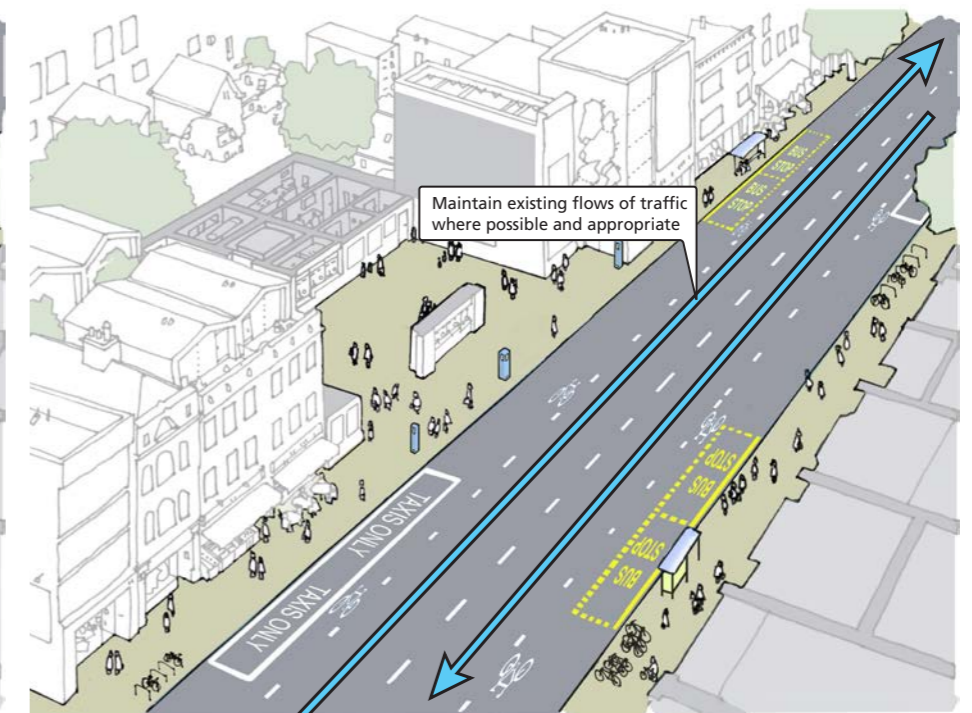


Figure 5.7. Vehicular movement - private vehicles

Further guidance (see section 7.4)

- Ref. no. 3 • Ref. no. 12 • Ref. no. 29 • Ref. no. 40
- Ref. no. 9 • Ref. no. 14 • Ref. no. 34 • Ref. no. 10
- Ref. no. 22 • Ref. no. 36

Designing for movement

When balancing the needs of different types of movement in front of the station, it is helpful to break down the public realm into three distinct zones: the pedestrian zone, the kerb line and the carriageway. By carefully considering the relationship between each zone, movement within the public realm can be optimised. Any realignment of the kerb line that has an impact on the road capacity will require traffic modelling. Further guidance on street design is provided in TfL Streetscape Guidance.

The pedestrian zone

Within the pedestrian zone in front of the station all movement should be non-vehicular and focused on the needs of the pedestrian. The zone extends from inside the station building, across the footway and to the kerb line. Any pedestrian crossings should be considered part of the pedestrian zone.

The design of the pedestrian zone should provide easy, efficient and enjoyable connections from the gate line to key local destinations and other transport.

Where possible, crossings should be located in areas that enable pedestrians to follow their desire lines and accommodate the highest likely level of demand.



Figure 5.8. Balancing movement

Further guidance (see section 7.4)

- Ref. no. 1
- Ref. no. 14
- Ref. no. 34
- Ref. no.39
- Ref. no. 3
- Ref. no. 22
- Ref. no. 36
- Ref. no. 9
- Ref. no. 29
- Ref. no. 38

The carriageway (or vehicular zone)

The design of the carriageway in front of the station should balance vehicular capacity with pedestrian desire lines and demand. It should include the provision of suitable crossing facilities. The following issues should be considered:

- Any reduction in capacity will need to be modelled by the highway authority
- The likely impact of pedestrians crossing the carriageway at informal locations
- The extension of bus priority before and after bus cages where possible

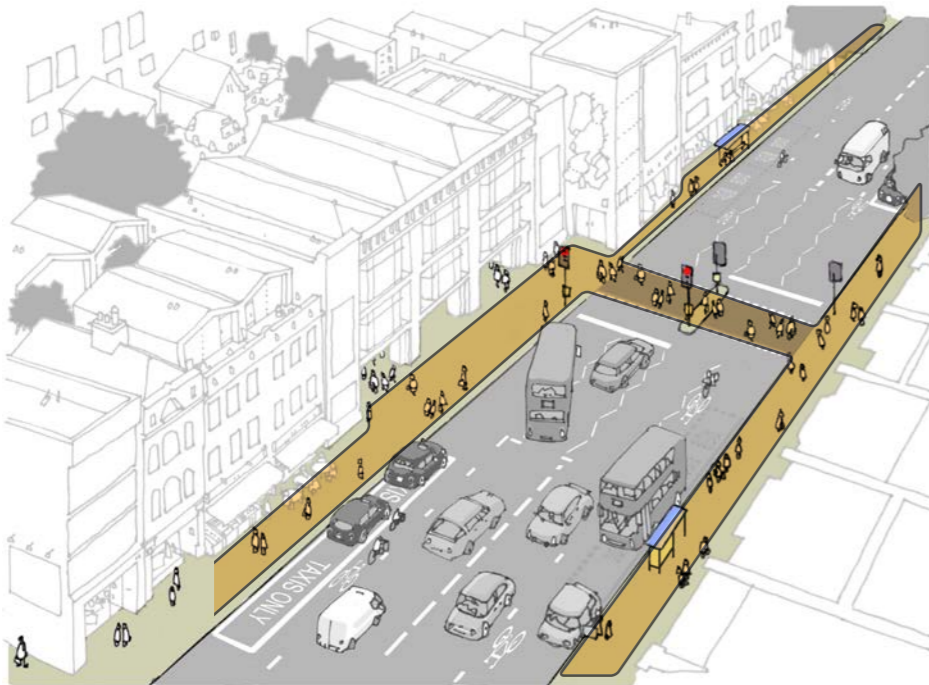


Figure 5.9. The pedestrian zone

The kerb line

The kerb line defines the relationship between the pedestrian zone and the carriageway. An effectively designed kerb line will:

- Create a boundary that protects pedestrians and cycle users from vehicles
- Make it clear to cyclists they are entering the pedestrian zone and that they should dismount
- Allow buses to access the kerb and pull away easily into the main flow of traffic
- Enable bus passengers to board and alight from the pedestrian zone quickly and safely
- Enable the passengers of other vehicles, including taxi and private hire, to access the pedestrian zone where dedicated infrastructure is provided
- Define the edge of the carriageway and enable the safe use of pedestrian crossings



Figure 5.10. The vehicular zone

The detailed design of the kerb line requires the designer to adhere to relevant pedestrian, cycle and public transport design guidance. However, the following are general principles which can be used when considering how to balance multiple needs:

- The kerb line should be designed to optimise the needs of pedestrians first, followed by the needs of cycle users and public transport
- The relationship between cyclists and other vehicles including buses, taxis and private hire, needs to be thought through carefully and on a site-by-site basis
- The chosen layout should be based on an understanding of the relative demand for each type of movement
- Kerbs should be kept straight to ensure buses can access them efficiently, and bus cages should remain dedicated for bus use only
- Access for taxis and private vehicles to stop at the kerb should be provided where the requirements of pedestrians, cycle users and public transport have been satisfied



Figure 5.11. The kerb line

5.4 Place

Further guidance (see section 7.4)

• Ref. no. 3 • Ref. no. 22 • Ref. no. 29

Place is about creating spaces that are attractive and functional, that people want to stay in and can enjoy. It is about making a space more than just a through-route by supporting the needs of users, enhancing their experience and giving them a reason to be there.

The specific types of spaces that should be included will depend on the individual station, the local area and types of users. The balance of station public realm objectives will be an important factor. The adjacent images show the types of activity that may be appropriate depending on the objectives of the station public realm.

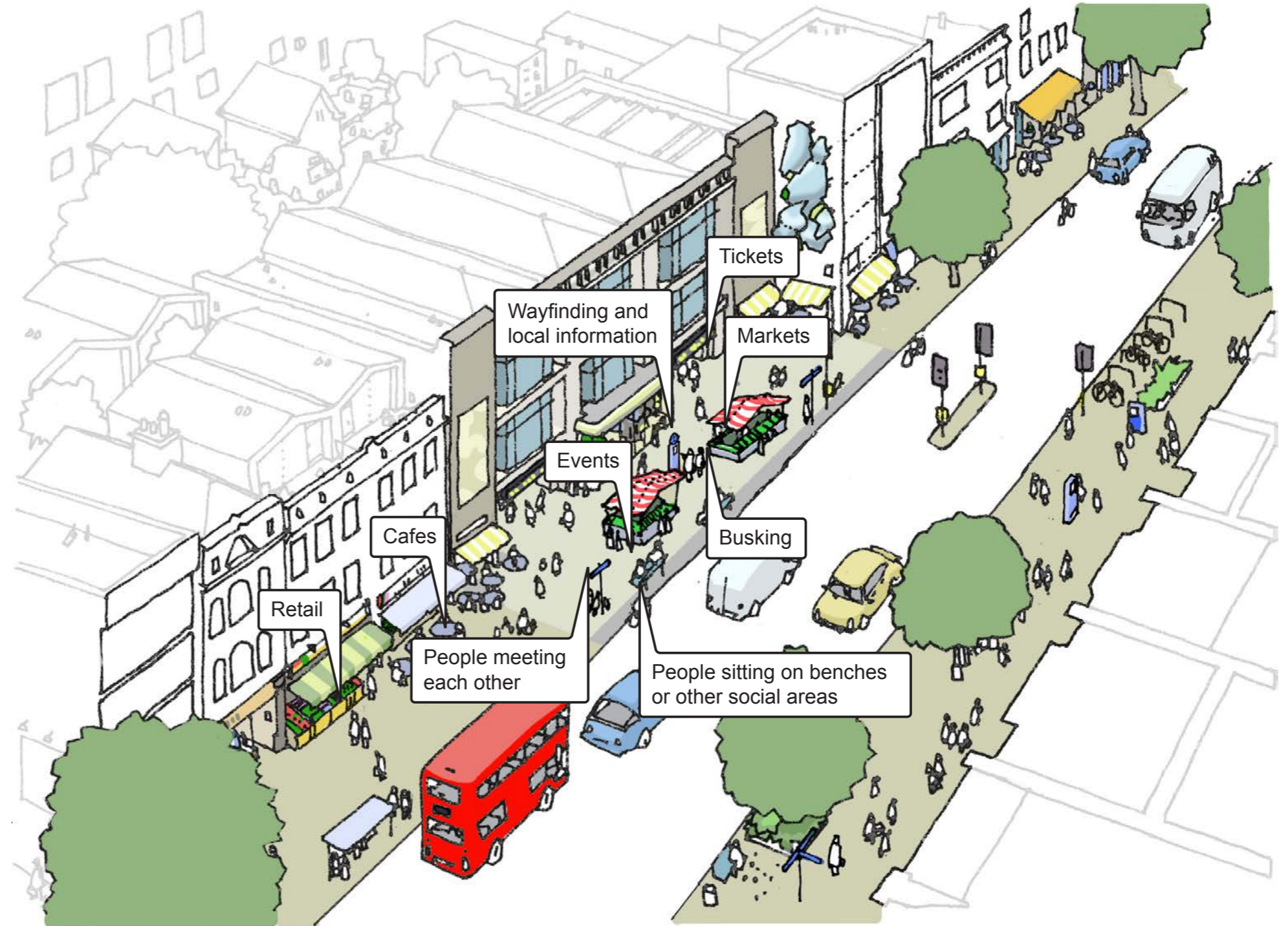


Figure 5.I2. Place functions of the public realm

Further guidance (see section 7.4)

- Ref. no. 3
- Ref. no. 22
- Ref. no. 36
- Ref. no. 14
- Ref. no. 29

Locating place functions

The location of spaces for place activity will depend on the form and layout of the station, the location of movement routes and the available space.

It is usually best to plan the space by thinking about it as a series of overlapping zones that relate to either movement or place activity. Movement zones should be identified first. Appropriate place activities should then be located in the areas not used for movement.

Entrance and decision zones are the spaces people enter first and where they decide what to do or where to go next. They need to be kept free from clutter, have good views of onwards connections and be large enough to cope with congestion.

Ticketing and information zones are functional spaces where people queue for tickets and take in information. They need to be easy to locate and close to transport access points.

Waiting zones are areas that relate directly to the transport system and are where people wait for their chosen mode of transport. These are normally directly adjacent to the boarding point and/or near information boards.

Retail zones are areas used by, or directly adjacent to, retail including cafés and associated seating areas. For retail to be commercially viable the space needs to be visible.

Social zones are areas where people, including non-transport users, choose to go and spend time, either individually or as part of a group. They are generally in the external areas of a station.

Stations can be busy, congested areas and providing place-making and space zones that are less intensely populated can dramatically improve people's experience of the station, the local area and the public realm.

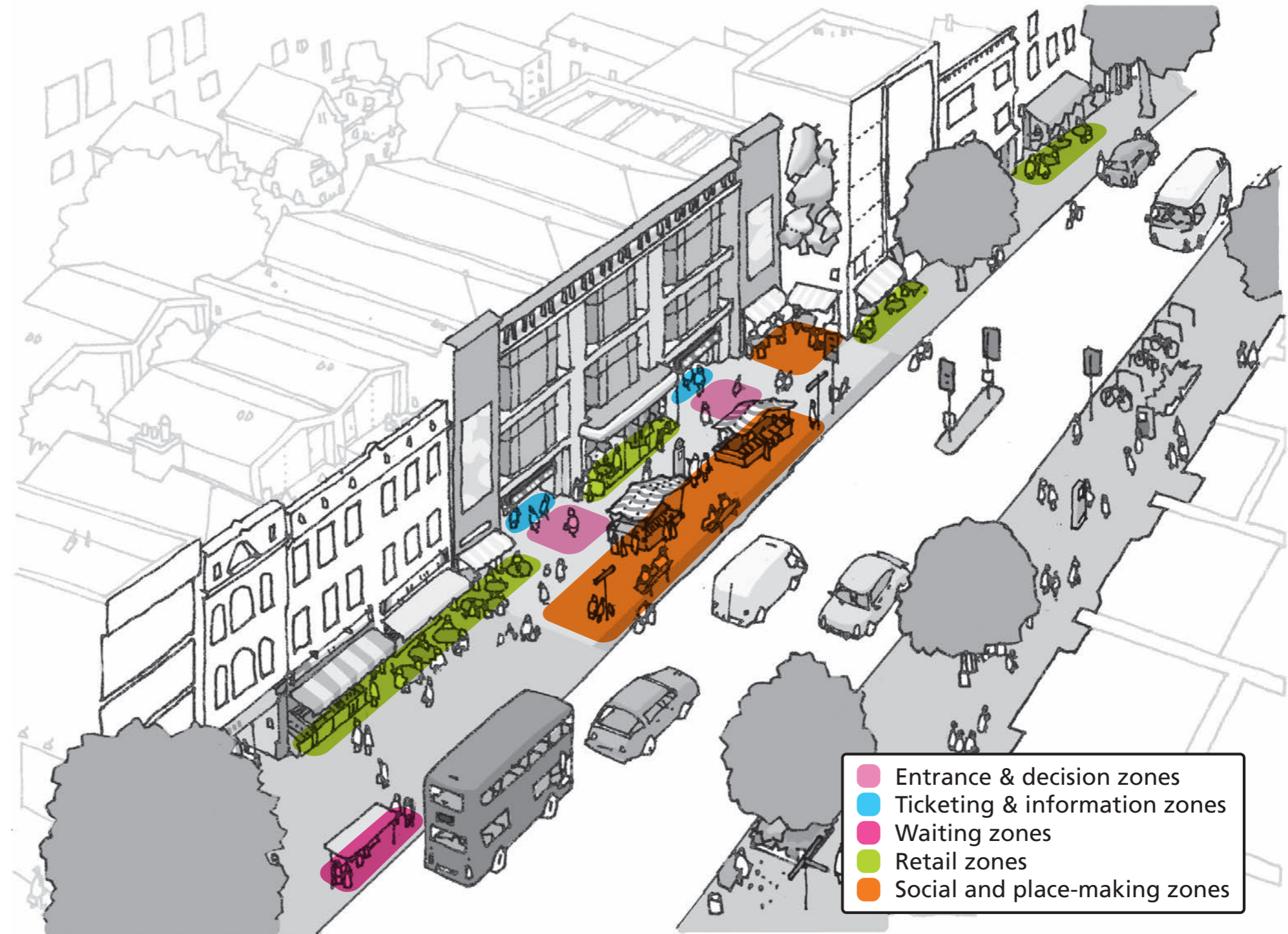


Figure 5.13. Place zones within the public realm

5.5 Finding the balance

Further guidance (see section 7.4)

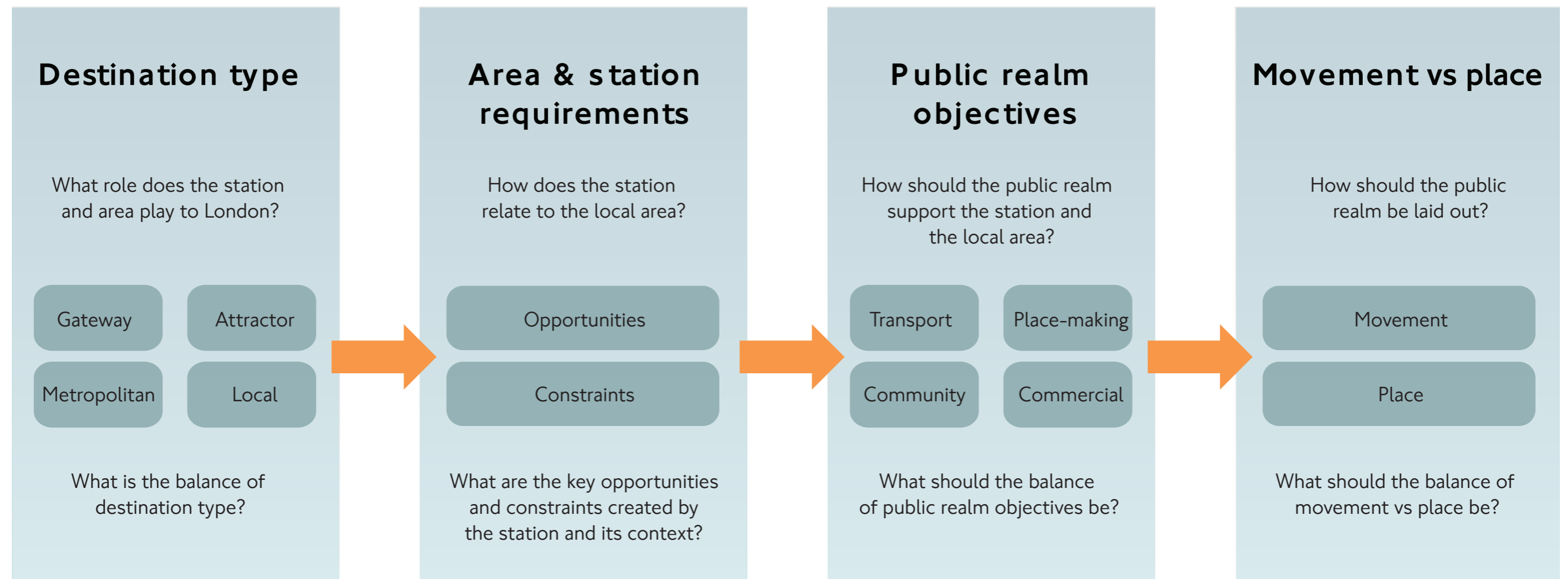
• Ref. no. 3 • Ref. no. 29 • Ref. no. 36

The public realm cannot be all about movement or all about place – it has to find a balance.

The objectives of the public realm and the function of the place are important considerations when judging a balance of place and movement.

The adjacent flow chart summarises this process.

The following pages include examples of how the public realm could be laid out at each of the destination types. These should be seen as illustrative only.



Gateway

Gateway destinations need to create positive first impressions and help orientate people. They also need to balance large flows of people and many different types of transport.

The public realm should include both place and movement spaces in generous proportions.

A good example of a well-designed public realm at a gateway station is in front of King's Cross station. The area creates a strong, positive first impression, offers spaces for large amounts of people to move quickly, and also provides social spaces to enable people to linger and enjoy the area as a place.



Photo 5.1. Example of public realm at a gateway station

Attractor

Attractor destinations have high flows of people, particularly at certain times such as on event days. However there are fewer types of movement and the movements are less complex, with most people going to the same place. Place-making will be an important function of the space as will opportunities for retail.

The public realm should primarily deal with orientating and enabling people to go to a particular destination as well as building a sense of place.

A good example of a well-designed public realm at an attractor station is at Wembley Park. The public realm has to deal with large numbers of people at certain times and effectively creates space and orientates people visually and physically to their destination. It also offers opportunities for pop up retail which is put in place during event days.



Photo 5.2. Example of public realm at an attractor station

Metropolitan

Metropolitan stations need to be transport focused and have many different flows of people, types of movement and modes of transport. There may be some space for commercial and place-making functions but transport needs should be satisfied first.

The public realm should support interchange, offering space and information to large numbers of people heading in different directions and to different forms of transport.

A good example of a well-designed public realm at a metropolitan station is at Stratford. Multiple transport modes are located close to one another and the public realm supports easy movement between them by enabling crossing along desire and sightlines.



Photo 5.3. Example layout of public realm at a metropolitan station

Local

Local stations should make the most of place-making and community opportunities to create spaces that embed the station in its local area.

The public realm outside a local station should connect it to the local community and develop a sense of place.

A good example of a public realm at a local station is at Hampstead Heath station. The space outside it is used for multiple purposes at different times. It seamlessly flows into the wider area and creates a focus for the community.

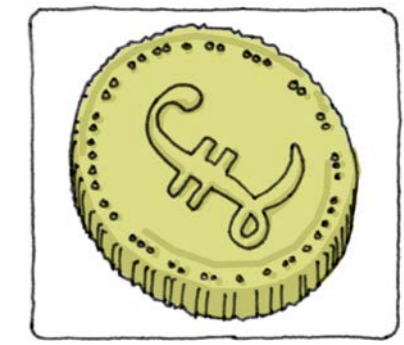
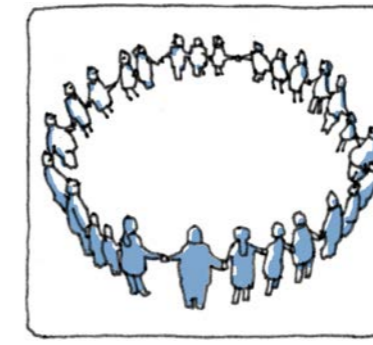
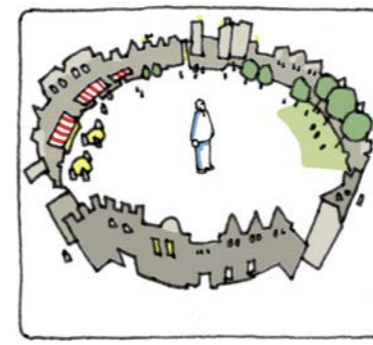


Photo 5.4. Example layout of public realm at a local station

Summary: Optimising public realm

This section has combined the analysis from sections one to four to define the station public realm based on the concept of movement versus place.

The table right summarises the questions that can help identify the balance of place and movement in the public realm.



Transport	Place-making	Community	Commercial
What is important about the movement function of the space?			
<p>What key interchange movement routes are there and how do they interface with the public realm?</p> <p>For example: Interchange with bus stops and cycle facilities or other stations</p>	<p>What are the key movement routes to the most important local destinations?</p> <p>For example: Routes to a major tourist attraction or a local landmark</p>	<p>What movement routes are most likely to create community benefit?</p> <p>For example: Routes that encourage walking or routes to community facilities</p>	<p>Which routes have the potential to create footfall that can be turned into commercial revenue?</p> <p>For example: Routes used by people with more time to spend money</p>
What is important about the place function of the space?			
<p>What types of place-focused space could support the transport system?</p> <p>For example: Space for queuing at busy times or space for passengers waiting for connections</p>	<p>How could the public realm create or make more of the sense of place?</p> <p>For example: Through the creation of spaces to view local landmarks or the use of certain materials</p>	<p>What function does or could the public realm have for the community?</p> <p>For example: The creation of spaces for people to socialise and meet</p>	<p>How can the space encourage a better variety of uses and what commercial uses are appropriate?</p> <p>For example: By enabling space for commercial uses to spill out into the public realm</p>
What is a good balance of movement and place and what does this mean for the design of the space itself?			
<p>What balance of place versus movement will appropriately support the transport system?</p> <p>For example: The level of pedestrian capacity required on the footways</p>	<p>What balance of place versus movement will give the right sense of place?</p> <p>For example: The amount of space required to give a good first impression</p>	<p>What balance of place versus movement will give the right level of community benefit?</p> <p>For example: The balance of routes to community spaces versus community space itself</p>	<p>What balance of place versus movement will enhance commercial opportunities?</p> <p>For example: The space available for commercial uses versus the footfall required to make them feasible</p>

6 The essentials

This section focuses on a series of themes that all station public realm designers need to consider. The implementation of each theme will vary depending on the place, but certain elements will always be essential.

The information presented on each theme is high level and further consultation of more detailed guidance and with specialist officers will be required. The information in this document should however act as a useful checklist during the early stages of a project.

6.1 User information

Users of a station require up-to-date information on the status of the transport system. Many of these users will know the station public realm and move through it habitually, however, others will need information to help them get the most out of the area and the station.

The design of the public realm should always look to reduce the need for information by making a place easy and intuitive to navigate and understand. However at a station there will always be a need to provide additional information through other formats including signage. To identify how this is best achieved a wayfinding, signage and information strategy should be developed.

Different user groups need different information at different times. Therefore the strategy should begin by considering the balance of people who use the station and what types of information these groups of people will find useful at each point in their journey.

TfL has an established pedestrian signage system known as Legible London. Unless the local authority uses a different signage standard, Legible London should always be used outside TfL stations. For more information on Legible London, contact the TfL Urban Design team by emailing urbandesign@tfl.gov.uk.

Guidelines

An approach to user information should be developed that incorporates the following principles:

- Information should be communicated quickly and simply to those who need it and when they need it
- Signage should have minimal impact on those who do not need it, reducing visual and physical clutter
- Walking should be promoted as a viable option for onward journeys
- The location of signage and layout of the surrounding area should ensure that there is enough space for users to view the information away from areas with lots of pedestrians

Further guidance (see section 7.4)

- Ref. no. 10
- Ref. no. 34
- Ref. no. 39
- Ref. no. 14
- Ref. no. 36
- Ref. no. 40

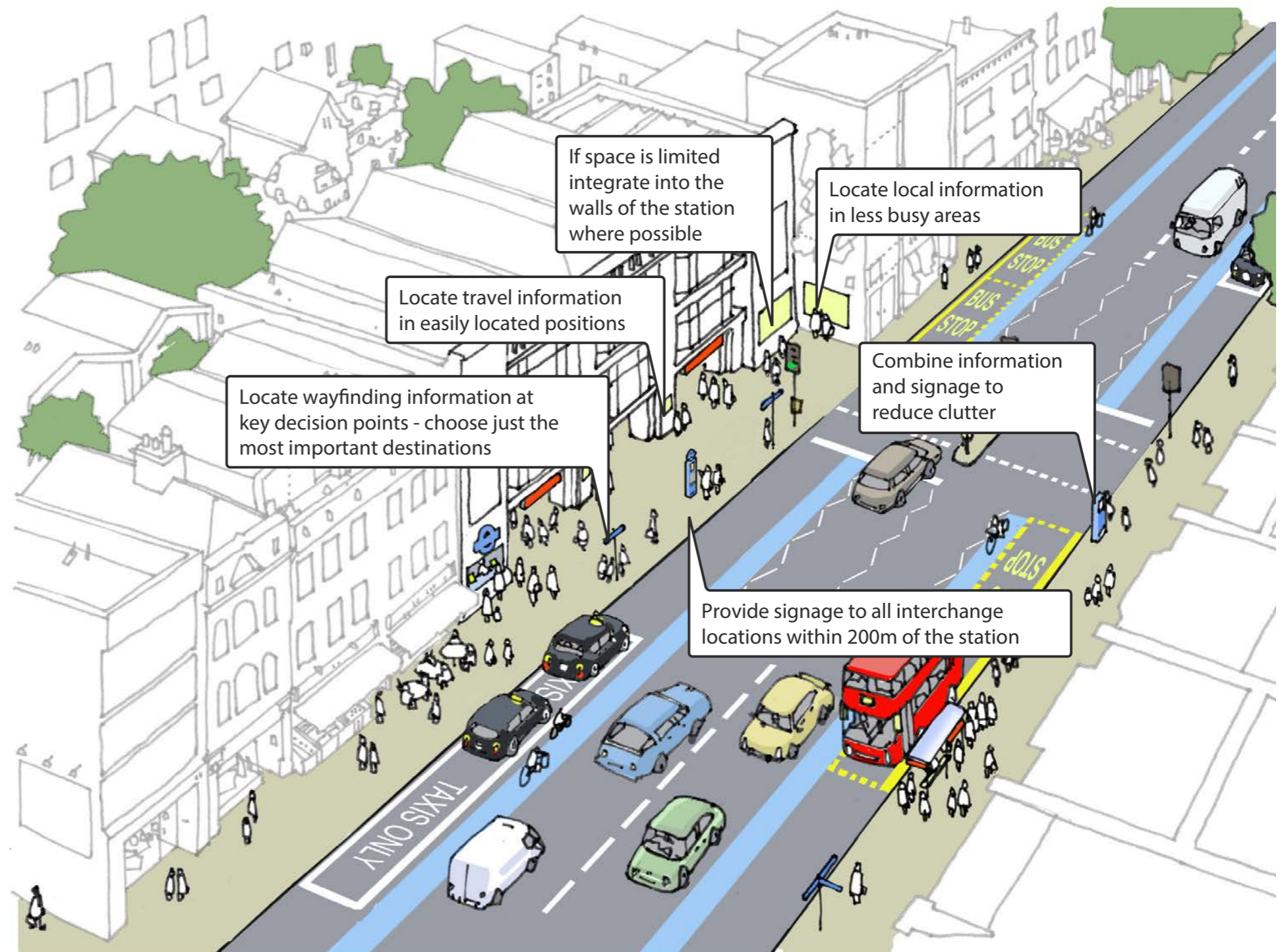


Figure 6.1. User information

When making decisions about the design and placement of specific types of signage the following should be considered:

General travel and interchange information

- Ensure the signage and information can be easily located
- Integrate the information into the station building or the external facades where possible to avoid clutter

Real-time travel information

- Regular information should be located near to the point of departure to aid intuitive wayfinding
- Assimilated information should be displayed at an easily located central point
- Means of providing information on emergencies or disruption should have minimal impact on the public realm when not in use

Wayfinding information for both interchange and the local area

- Clear and simple signage to all transport locations within approximately 200 metres of the station should be provided
- Clear and simple signage to the most useful local destinations should also be provided
- Maps of interchanges and the local area should be positioned in appropriate and intuitive locations
- Where possible ensure that intermediate wayfinding points are visible from the location of signs

Local information

- Consider what information might be valuable to local people and businesses



Photo 6.1. General travel and interchange signage



Photo 6.2. Wayfinding information

6.2 Pedestrian safety

Pedestrian safety is about ensuring that walking as a mode of transport is as safe as is reasonably possible. The safer people feel when they are walking is a key factor in encouraging more people to walk. Ensuring pedestrian safety in a station public realm should therefore be a primary design driver.

Compared to the wider street network, station public realms tend to have higher numbers of pedestrians, making their safety a significant consideration. Stations have a greater number of conflicting pedestrian flows and potential sources of danger owing to the interaction between different forms of transport and types of users.

Designers should create spaces for people to move about in freely and comfortably by understanding desire lines and how people will use the space. A space that provides simple, direct routes for people to move along with enough space for them to do so comfortably, will almost always be safer. Routes should be obstacle free, crossing points should be appropriately located and signage should be clear.

A road safety audit (RSA) will also be required.

Guidelines

An approach to pedestrian safety should be developed that incorporates the following principles:

- Understand how spaces will be used, the likely demand and the primary desire lines
- Ensure the layout enables people to move easily along desire lines that are obstacle and clutter free
- Assess pedestrian comfort to ensure the space can accommodate predicted levels of pedestrians and that the surrounding footway can accommodate demand, especially during peak pedestrian travel times
- Provide accessible pedestrian crossings that connect desire lines and ensure the area is correctly sized for the predicted pedestrian flows and demand
- Set speed limits on the roads that are conducive to pedestrian movement and activity around the station
- Consider the ability for pedestrian and driver to see each other and keep sightlines clear

Further guidance (see section 7.4)

- Ref. no. 2
- Ref. no. 14
- Ref. no. 34
- Ref. no. 45
- Ref. no. 10
- Ref. no. 26
- Ref. no. 36



Figure 6.2. Pedestrian safety

6.3 Crime prevention and reduction

The size of the space

The size of a space needs to be considered carefully. The amount of unobstructed public realm and how that space is provided should be based on the number of people using it and what they will be using it for.

A footway or space outside a station always requires a greater minimum width than in the wider public realm. As a very basic rule of thumb station entrances should have a minimum of four metres of unobstructed footway width in front of them. However in most situations a more detailed analysis will be required.

A simple tool for calculating required space is TfL's Pedestrian Comfort Levels (PCL) tool. PCL works by assessing the relationships between available space on footways/crossings and pedestrian flows and calculating the resultant density of pedestrians in that space. This density is categorised into a number of Levels of Comfort from A to E.

Similarly, the tool can be used to specify a suitable width, that based on a flow of pedestrians will deliver the desired level of comfort.

The Level of Comfort that should be achieved can be determined by the desired balance of movement and place activity.

- Place-focused spaces need to have a minimum Level of Comfort of A or B+
- Movement-focused spaces will be acceptable with a Level of Comfort of B or C

When applying PCL to station public realm, care should be taken to recognise that while movement is an important factor, the nature of movement outside a station will be very different from that of a linear footway. Therefore, within a theoretically optimised space, the Level of Comfort may be reduced outside a station by pedestrians needing to orientate themselves or choosing to wait for their connection. There is also always the risk of disruption to transport services which may cause congestion to build up in front of the station very quickly. The design Level of Comfort outside a station must therefore always have a significant risk factor applied to it compared with standard footways.

The adjacent image demonstrates how Levels of Comfort can be applied to an area of public realm.

TfL is statutorily required (under Section 17 of the Crime and Disorder Act 1998) to take all reasonably practicable steps to prevent crime and disorder, and must consider the impact of all of its decisions and actions on opportunities for crime. Consideration of crime prevention as early as possible in the development of plans and designs is therefore absolutely crucial.

Crime prevention specialists should be engaged at the design brief stage and then at important project development stages. By taking this approach it is possible to incorporate aspects of preventative design without adversely affecting the 'usability' of the space for the community, and on a cost-neutral basis to the project.

Personal and property security

Personal security is about ensuring people are safe and feel safe using the area, while property security is about ensuring assets are protected against the threat of theft and malicious damage.

London's transport system is by design a low-crime environment. The risk of becoming a victim of crime on public transport, particularly on the Underground network, is low. However crime, antisocial behaviour and the fear of crime continue to have a significant effect on people's willingness to travel.

Security considerations are therefore a responsible component of any design brief. Preventative design should never adversely affect the usability of a finished space but should support and enable successful function. Good public realm design that incorporates well-conceived and proportionate security will create a tacit sense of protection.

Guidelines

An approach to personal and property security should be developed that incorporates the following principles:

- Create clear definition between public and private areas
- Introduce, where possible, active uses around public spaces that will provide natural surveillance during the day and night, such as shops, windows etc
- Ensure appropriate lighting of public spaces to make them feel safe and secure at night

- Enhance permeability and connections to remove hidden corners or dead ends
- Ensure an appropriate maintenance programme is set up

Counter terrorism

Many stations, particularly those that are centrally located or have a strategic importance to the transport network, may demand a heightened approach to security through counter-terrorism measures. To understand the level of terrorist threat and appropriate mitigation, LU Network Security should be contacted early in the process.

One of the counter-terrorist measures that creates the most impact on the public realm is Hostile Vehicle Mitigation (HVM). When incorporating HVM into a scheme it must be remembered that for security it is the function not the appearance of the infrastructure that is important. The appearance must therefore be led by the design of the space as a whole and solutions should not be limited to off-the-shelf bollard products. There are many different types of HVM that can be used including bollards, planters, seating or integration into the outer structure of the building.

Guidelines

An approach to counter terrorism should be developed that incorporates the following principles:

- Minimise the visual effect of HVM and its impact upon pedestrian flows
- Integrate HVM into other street furniture or where possible the structure of the building

Further guidance (see section 7.4)

- Ref. no. 2
- Ref. no. 27
- Ref. no. 30
- Ref. no. 38
- Ref. no. 4
- Ref. no. 28
- Ref. no. 34
- Ref. no. 44

6.4 Accessibility and inclusive design

Designing for accessibility is about making places easier to use for all passengers. This includes people with a range of disabilities and is not limited to visually and mobility-impaired passengers. Older people, families with young children, people with heavy or bulky baggage, and those with bicycles should also be considered when designing for accessibility.

The Equality Act (2010) makes it a legal requirement to ensure disabled people are not discriminated against. Transport providers have a duty to demonstrate reasonable efforts in providing facilities to assist disabled people and in reducing or removing barriers to accessing and moving within interchange zones.

The Mayor's Transport Strategy commits TfL to consider a passenger's whole journey, from start to finish, to encourage more 'spontaneous' travel. The design of the public realm is only one element of this journey, however designers should always aim to create fully accessible spaces.

Further guidance (see section 7.4)

- Ref. no. 1 • Ref. no. 21 • Ref. no. 14 • Ref. no. 34
- Ref. no. 19 • Ref. no. 36

Guidelines

An approach to accessibility should be developed that incorporates the following principles:

- Consider the whole journey and aim to enable all users to follow the same route
- All areas should be accessible without the need to use steps; primary routes should be step-free
- All step-free routes should be easily located and signed appropriately
- Where there are different stepped and step-free routes, the start and end points of the routes should be easily located and clearly signed
- Ramps and gradients should ideally be 1:20 and no more than 1:12
- Appropriate tactile paving material should be provided in line with TfL's Streetscape Guidance
- Seating should be placed at appropriate intervals
- Consider the location of taxi, private hire and private car pick-up points in relation to step-free access to the station, as many disabled passengers rely on these modes of transport

Families

Families will normally move more slowly than other users, sometimes in groups, and they may have buggies and not wish to encounter steps. Designing for families presents the following challenges and opportunities:

- More space may be needed owing to larger groups and wider footways required for buggies
- Points to stop, wait and rest may be necessary
- Step-free routes may be required
- Safety may be a particular concern

The public realm should ensure that families can move easily, comfortably and safely.



Older people

Older people may move more slowly and need places to rest or sit along the way. They may not be able to use steps easily without help. They may feel nervous about using a space without clear signage and clear sightlines. Designing for older people presents the following challenges and opportunities:

- Step-free routes may be required
- Points to stop, wait and rest may be necessary
- More space may be needed for older people to feel comfortable as they may move more slowly than other pedestrians

The public realm should enable older people to move easily, comfortably and safely.

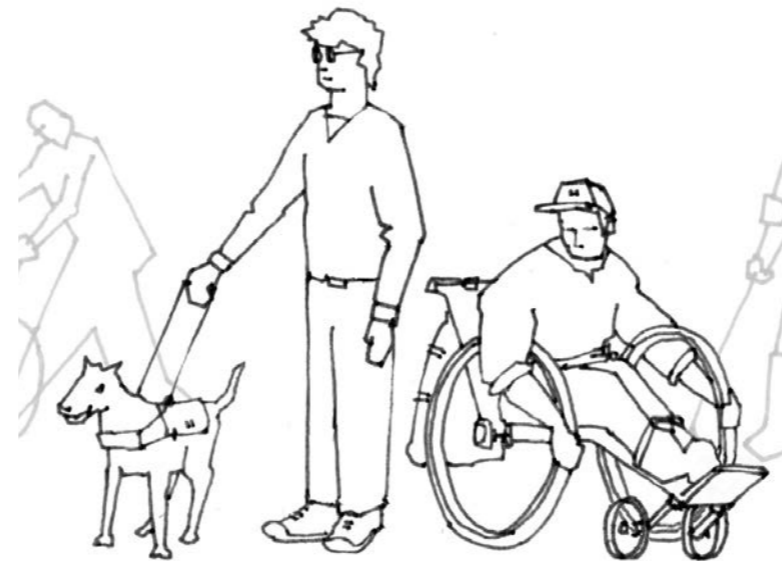


Disabled people

This group includes a wide range of people who may find it hard to move through spaces for a number of reasons, some of which may not be visible. Designing for disabled people presents the following challenges and opportunities:

- Visually impaired people will need tactile cues and simple, straightforward routes to help them navigate
- Mobility-impaired people will more than likely need step-free routes
- People who feel uncomfortable in certain environments will need reassurance from clear routes with good signage

The public realm should ensure that as many people as possible can use a station and its surrounding spaces. Where possible this should be without additional support.



6.5 Street furniture and planting

Well-integrated street furniture, planting and trees can add to the attractiveness and function of the public realm. Strategies for both street furniture and planting should be purposeful and focus on the benefits of each to avoid producing unnecessary clutter.

Street furniture can:	Planting can:
<ul style="list-style-type: none"> • Enhance functionality • Provide designated places to rest, wait, or socialise • Create activity and vibrancy • Help people enjoy the place • Help to define the space • Reinforce the identity of the context 	<ul style="list-style-type: none"> • Have a humanising effect, helping to soften hard spaces • Add character and definition • Provide shelter and shade • Provide environmental and ecological benefits • Help support intuitive wayfinding

TfL's Streetscape Guidance provides advice on how to position appropriate street furniture and planting on the TLRN and borough roads. It should be read in combination with local guidance. Any exceptions to this guidance should be discussed with TfL's Streetscape Review Group and the local authority. Both street furniture and planting should be purposeful and an integrated part of the public realm objectives and not just added as an afterthought. The planting strategy should be developed with a professional arboriculturalist and TfL's Arboriculture & Landscape Manager.

Guidelines

An approach to street furniture and planting should be developed that incorporates the following principles:

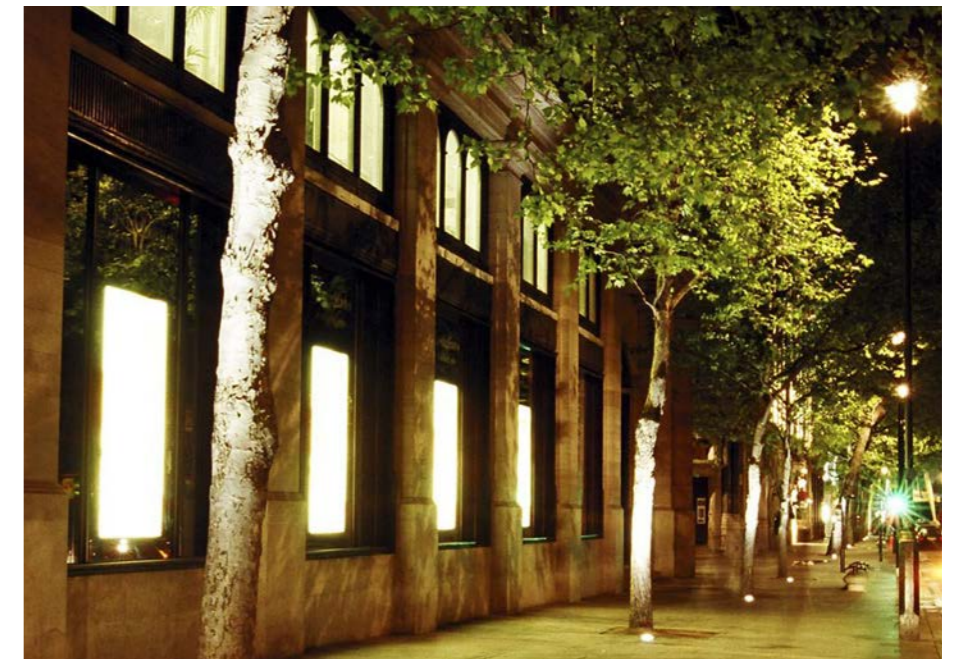
- Ensure all street furniture and planting reinforces desirable movement patterns
- Ensure all street furniture and planting reinforces safety and security
- Consider the function of all street furniture in relation to its context
- Look to merge street furniture where possible to minimise clutter
- Species of plants should be chosen according to the location, function and scale of the space and their tolerance of the conditions
- Consider the impact of the height of street furniture and planting
- Underground services and tunnels, particularly at Underground stations, must be considered
- The maintenance and management requirements of trees and planting, as well as the availability of funding, must be considered

Further guidance (see section 7.4)

- Ref. no. 5
- Ref. no. 14
- Ref. no. 36
- Ref. no. 41
- Ref. no. 42



Street furniture can add activity to a space



Trees and lighting can add character and help to humanise a space

7 Next steps

This document has described a process of identifying a balance of objectives for the public realm at a station, a set of opportunities and constraints, and a list of essential requirements. If this understanding of the public realm is to lead to tangible improvements we must convert it into a project with a design brief and funding. The following section provides some useful guidance on moving forward through the definition phases of the project.

7.1 The case for improvement

It is being increasingly recognised that high-quality public realm can add value to a place. However, it can still be difficult to articulate this value. Identification of the station public realm objectives described earlier provides one way of establishing qualitative value. TfL's Valuing Urban Realm Toolkit (see below) can help provide a tangible quantitative value for public realm improvements. There is also a considerable amount of support for improvements to public realm in London planning policy including the London Plan and the Mayor's Transport Strategy.

Station public realm objectives

In Section one the strategic benefits of a well-designed station public realm were described in the form of four key objectives. These objectives should be used to build the case for a project and are summarised in the table below.

Each station will have a different balance of objectives and they will have a specific meaning for each area of a public realm. It is important to define this unique interpretation when building the case for improvement. The tables at the end of sections two to five should help identify these specific benefits.

TfL's Valuing Urban Realm Toolkit

The TfL Urban Design team has developed a tool to financially quantify the public and private benefits of improving the pedestrian environment, the Valuing Urban Realm (VUR) Toolkit. It uses data including the Pedestrian Environment Review System (PERS), property prices, retail rents, pedestrian counts and build cost estimates to identify a notional cost-benefit ratio for public realm schemes.

The VUR Toolkit is underpinned by extensive research into the benefits of high-quality streetscapes. These studies, commissioned by TfL Urban Design, have concluded that there is positive, significant and consistent value added to private business by maintaining and improving the public realm. Furthermore, the research shows people value high-quality streets and spaces and are prepared to pay for them.

The VUR Toolkit produces a results table which sets out the public and private benefits generated by an improved public realm. It demonstrates the benefits for pedestrian ambience, local businesses and residential property values. By calculating value uplifts and benefit-cost ratios, a business case can be developed.

The VUR Toolkit will soon be integrated into TfL's Business Case Development Manual (BCDM). It is also available for public and commercial use via the VUR website found at toolkit.urban-realm.co.uk

Further guidance (see section 7.4)

- Ref. no. 25
- Ref. no. 43
- Ref. no. 45

Place-making: Enhance the sense of place

A station's public realm is:

- The first experience a visitor will get of a place when they arrive via public transport – this impression will stick and must be positive
- The external face of the transport system and the point at which it integrates with the local area and beyond

Commercial: Support the local economy and generate commercial revenue

A well-designed station public realm can:

- Directly affect property prices in the local area
- Enhance the performance of local businesses including local retailers, cafés and restaurants
- Attract new visitors and businesses to the area

Community: Develop socially engaging spaces that unlock community benefit

A station's public realm is:

- The single place where the greatest number of people will visit and come together on a regular basis, and should therefore be the social and community heart of a place
- A decision point where people will decide to either walk to their end destination or use mechanised vehicles, making it pivotal to supporting health and wellbeing and reducing the environmental impact of travel

Transport: Optimise the functioning of the transport system

A well-designed station public realm can:

- Help support the internal spaces of the station including the reduction of congestion
- Support smooth and easy interchange between types of transport

7.2 Defining the project

A station public realm project does not have to involve a wholesale redesign. Making just a few changes to the environment outside a station can make a significant difference to the way the station integrates with the local area. When defining the scope of a project, a gap analysis should be carried out by identifying what the public realm should be doing and then reviewing how well the current environment achieves this. An effective station public realm project should aim to bridge this gap.

The definition of the project will need to consider a project boundary and how a proposal can realistically be phased and implemented.



Stratford station has multiple ownership boundaries

Defining the boundary

Defining the boundary of a project should be a continuing process, with the exact boundary remaining flexible, particularly at the early stages. The project should start by identifying the range of spaces that may need attention. The role of each space relative to the station and the local area should then be identified, followed by the priorities for improvement. On a large project this could be the creation of whole new public spaces and changes to the highways arrangement. On a small project it may simply be the addition of some signage or the removal of street furniture. Until the necessary scope is identified, the boundary of the project should not be fixed.

A common challenge for public realm projects is that the public realm often has many 'owners'. This guidance endorses treating the station public realm as a single, expansive space at the conceptual stage and avoiding land ownership issues until the scope is identified and an appropriate boundary is agreed.

Phasing and implementation

A project will normally involve a range of interventions regardless of its size and scope. Some of these may be easy to achieve while others may rely on greater investment or may have internal or external dependencies.

Phased or staged implementation means the delivery of a project in distinct parts. An idea of how a project will be phased should be developed early in the process. The following should be considered:

- What 'quick wins' can be put in place early on to begin to develop the momentum for change
- How to ensure that each phase feels finished even if the project as a whole is not
- How to minimise the overall disruption to users and the transport system, and ensure that the phases are compatible with the station's operation and passenger functions are not compromised
- How to clearly communicate the likely phasing strategy to the public



Implementation of a project

7.3 Consultation and engagement

All projects should include an appropriate strategy for engagement with stakeholders including different parts of TfL.

The right time to do this will depend on the project and the stakeholders. There will need to be at least two types of engagement; the first will be to develop and confirm the brief and the second will be to review and develop the designs. Each of these stages will require involvement with a different set of stakeholders as set out in the table on the right.

The relevant parts of TfL that need to be consulted should have been identified within Section four, however it is always best to liaise with the TfL Urban Design team and/or TfL Borough Partnerships to ensure all relevant parts of TfL have been included.

Further guidance (see section 7.4)

- Ref. no. 7
- Ref. no. 31

	Purpose	Key stakeholders	Timing
Stage 1: Design brief	<ul style="list-style-type: none"> • To ensure all relevant requirements are considered • To understand which stakeholders are required to be consulted in stage 2 	<ul style="list-style-type: none"> • Land owners • All relevant parts of TfL • The transport operator • The local authority 	<ul style="list-style-type: none"> • Once the brief has been drafted based on this document
Stage 2: Design stage	<ul style="list-style-type: none"> • To review the proposals • To ensure all stakeholders' requirements have been met 	<ul style="list-style-type: none"> • All of the above that were found to be relevant • The public • Other local stakeholders such as business, residents' and community groups and major land owners • Statutory consultees such as English Heritage if appropriate 	<ul style="list-style-type: none"> • Preferably during options stage and the preferred option stage, however this will depend on the size of the project



Public consultation for Bank station capacity upgrade

7.4 Further documents and guidance


Ref: 01

Publisher: TfL

Title: Accessible Bus Stop Design Guidance

 Available online at:
tfl.gov.uk/publications (under buses)

Ref: 05

Publisher: TfL

Title: Green Estate Management Plan (GEMP)

Available on request from Transport for London


Ref: 09

Publisher: TfL

Title: Kerbside Loading Guidance

 Available online at:
tfl.gov.uk/publications (under freight)

Ref: 02

Publisher: DfT / CPNI

Title: Bollards and Pedestrian Movement

 Available online at:
www.gov.uk/government/

Ref: 06

Publisher: TfL / Network Rail

Title: Guide to station planning and design

 Available online at:
www.networkrail.co.uk

Ref: 10

Publisher: TfL

Title: Legible London: Evaluation report

 Available online at:
tfl.gov.uk/legiblelondon

Ref: 03

Publisher: TfL

Title: The vision and direction for London's streets and roads

 Available online at:
tfl.gov.uk/roadstaskforce

Ref: 07

Publisher: RTPi

Title: Guidelines on Effective Community Involvement and Consultation

 Available online at:
www.rtpi.org.uk/media/6313/Guidelines-on-effective-community-involvement.pdf

Ref: 11

Publisher: Local Borough

Title: Local Heritage Listing

Available on request from local borough


Ref: 04

Publisher: TfL

Title: DLR Station Design Guide

Available on request from DLR


Ref: 08

Publisher: TfL

Title: Individual station architectural analysis

Available on request from London Underground



Ref: 12
 Publisher: TfL
 Title: London Cycling Design Standards
 Available online at:
tfl.gov.uk/publications (under cycling)



Ref: 16
 Publisher: London Transport Museum
 Title: London Transport Museum Photo Archive
 Available on request from London Transport Museum website



Ref: 20
 Publisher: TfL
 Title: LUL Good Practice Guide Station Ambience and Décor
 Available on request from London Underground



Ref: 13
 Publisher: TfL
 Title: London Overground Station Design Guide
 Available on request from London Overground



Ref: 17
 Publisher: TfL
 Title: London Underground Space Planning Standards
 Available on request from London Underground



Ref: 21
 Publisher: TfL
 Title: Making Rail Accessible - helping older and disabled customers
 Available on request from TfL



Ref: 14
 Publisher: TfL
 Title: London Pedestrian Design Standards
 Available on request from TfL



Ref: 18
 Publisher: TfL
 Title: LU Design Idiom
 Available on request from London Underground



Ref: 22
 Publisher: DfT
 Title: Manual for Streets (1&2)
 Available online at:
www.gov.uk/



Ref: 15
 Publisher: TfL
 Title: London River Services Pier Design Guidance



Ref: 19
 Publisher: TfL
 Title: LUL Good Practice Guide Accessibility
 Available on request from London Underground



Ref: 23
 Publisher: GLA
 Title: Mayor's Transport Strategy
 Available online at:
www.london.gov.uk

**Ref: 24**

Publisher: English Heritage
Title: National Heritage Listing

Available on request from English Heritage website

**Ref: 28**

Publisher: RIBA
Title: RIBA guidance on designing for counter-terrorism
Available online at:
nactso-dev.co.uk

**Ref: 32**

Publisher: TfL
Title: TfL Heritage Library

Available on request from TfL Urban Design team website

**Ref: 25**

Publisher: CABE
Title: Paved with Gold

Available online at:
webarchive.nationalarchives.gov.uk

**Ref: 29**

Publisher: Roads Task Force
Title: Roads Task Force: The Vision and direction for London's Roads and Streets

Available online at:
tfl.gov.uk/roadstaskforce

**Ref: 33**

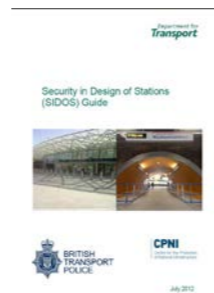
Publisher: TfL
Title: TfL Image Library

Available on request from Transport for London website

**Ref: 26**

Publisher: TfL
Title: Pedestrian Comfort Level Guidance

Available online at:
tfl.gov.uk/publications (under streets)

**Ref: 30**

Publisher: DfT
Title: Security in Design of Stations (SIDOS)

Available online at:
www.cpni.gov.uk

**Ref: 34**

Publisher: TfL
Title: TFL Interchange guidance

Available on request from Transport for London website

**Ref: 27**

Publisher: CPNI
Title: Public Realm Design Guide for Hostile Vehicle Mitigation

Available online at:
nactso-dev.co.uk

**Ref: 31**

Publisher: TfL
Title: TfL Consultations website

Available online at:
consultations.tfl.gov.uk

**Ref: 35**

Publisher: TfL
Title: TfL Open Data webpage

Available on request from Transport for London website



Ref: 36

Publisher: TfL
Title: TfL Streetscape guidance

Available online at:
tfl.gov.uk/publications (under streets)



Ref: 40

Publisher: TfL
Title: Travel in London Report

Available on request from Transport for London website



Ref: 44

Publisher: TfL
Title: Vehicle security barriers within the streetscape, Department for Transport

Available online at:
www.gov.uk



Ref: 37

Publisher: GLA
Title: The London Plan

Available online at:
www.london.gov.uk



Ref: 41

Publisher: TDAG
Title: Trees in Hard Landscapes

Available online at:
www.tdag.org.uk



Ref: 45

Publisher: TfL
Title: What is PERS?

Available online at:
tfl.gov.uk/info-for/urban-planning-and-construction



Ref: 38

Publisher: GLA
Title: The Mayor's Vision for Cycling in London

Available online at:
www.london.gov.uk



Ref: 42

Publisher: TDAG
Title: Trees in the Townscape - A guide for decision makers

Available online at:
www.tdag.org.uk



Ref: 39

Publisher: DfT
Title: Traffic Signs Regulations and General Directions 2002 Manual (TSRGD)



Ref: 43

Publisher: TfL
Title: Valuing urban realm toolkit

Available online at:
toolkit.urban-realm.co.uk

