Interchange Best Practice Guidelines 2009

Quick Reference Guide

MAYOR OF LONDON

Transport for London

Foreword

The Mayor wants to improve Londoners' quality of life and central to this is the experience of travelling around our city. We will be investing billions in achieving this through better transport - boosting capacity on our transport network, delivering Crossrail and a host of other measures to revolutionise the experience of navigating the Capital.

But we also want to fundamentally improve the interchange experience and expand passenger choice, by making transfers as smooth, seamless and stress-free as possible. London has some fantastic interchanges but if your interchange is crowded and unclear, impeded by clutter and poor signage, chances are that you will take that stress into the rest of your day.

In carrying forward these interchange improvements, one of our guiding principles must be to bring back a sense of place, which is why I am so pleased these guidelines make us consider more than Efficiency and Usability criteria in the way we design, operate and maintain interchanges. They also encourage us to consider Understanding (legibility, permeability, wayfinding, information) and Quality (perception, built design, spaces and sense of place).

Interchanges by their nature require cooperation, and - Network Rail, the London Boroughs, developers and others are all investing in and around interchange zones in order to make them better places to live, work and play in, as well as travel through. We must continue to work in partnership to transform our interchange spaces which are so essential to making a better city on behalf of the Mayor I welcome these guidelines which will help deliver real results at our interchanges and their interchange zones.

Kulveer Ranger

Transport Advisor to the Mayor

The word 'interchange' can mean a number of things. To avoid ambiguity, the following terminology is used throughout this quick reference guide:

Interchange the act of transferring between modes.

Interchange facility a purpose-built facility where interchange takes place, such as a railway station, bus station or bus/tram stop.

Interchange zone a wider area encompassing one or more interchange facilities creating a multi modal hub, and public spaces.

Introduction

The Interchange Best Practice Guidelines (comprised of a website and this guide) have been designed to provide advice and guidance to those within Transport for London and delivery partners, including the boroughs, who are involved in improving the quality and efficiency of interchange.

The focus of this guidance is on multi-modal interchange between one mode of public transport and another, for example between bus and train. It also considers interchange between public transport and the 'feeder modes' used to get to and from the interchange, for example walk, cycle or motor vehicle.

This guidance supplements, rather than replaces, operators' design and service delivery standards and other legal and discretionary requirements, particularly safety, that apply to the design and operation of bus stops, bus stations, tram stops, piers, cycling facilities, pedestrian environments, railway and Underground stations and should be interpreted in the context of these standards.

Links to relevant documents are provided, where available, on the Interchange Best Practice Guidance website.

www.tfl.gov.uk/interchange

This quick reference guide:

- provides a practical tool for those involved in the planning, design and operation of transport interchanges;
- provides a framework to evaluate the quality of existing and proposed interchanges;
- raises awareness of TfL's view of best practice and encourages its promotion and adoption by all parties;
- promotes design which considers all forms of movement, local context and environmental issues;
- assists in the preparation of broader planning policies such as Local Development Frameworks and Opportunity Area Planning Frameworks;
- ultimately, aims to improve the quality of planning, design and operation of public transport interchanges.

Why interchange is important in London

Interchange facilities are the hubs that link London's public transport services together to form a network. If transfers between these services can be made easier, quicker, and more convenient; better, wider ranging and more frequent travel opportunities will emerge for existing and new passengers to broaden travel horizons.

A world-class public transport system, incorporating best practice interchange hubs, will also help to meet the social, economic and environmental needs of a thriving and growing world city, including:

- supporting the continued economic development of London;
- minimising the need to travel, by concentrating new jobs and homes around accessible locations;
- easing congestion and tackling climate change by promoting more sustainable modes;
- meeting the increasing demand for travel by public transport;
- improving access to facilities and services in metropolitan and urban centres;
- providing links between neighbourhoods and employment, education and other opportunities;
- improving quality of life by improving air quality and by reducing noise and other environmental impacts;
- acting as a catalyst for socio-economic and physical regeneration in local communities;
- creating more attractive buildings and public spaces;
- removing barriers which prevent disabled people and others with reduced mobility from travelling freely; and
- providing safer and more secure journeys.

Acknowledging the challenges

The Interchange Best Practice Guidelines aim to inspire everyone to deliver best practice wherever possible. Achieving this in practice can be complex, with challenges varying on a case-by-case basis.

There are however, a number of common themes facing those seeking to improve interchange zones. In order to be a practical tool, this guidance has been prepared with these challenges in mind.

Some of the most common challenges are:

- an already overcrowded network;
- an increasing demand for travel;
- increasing passenger expectations of safety, security and comfort;
- protecting the built and natural environment;
- working within a complex transport industry;
- differing needs of passengers and other users;
- differing objectives, priorities and processes of delivery partners;
- spatial and other constraints imposed by the heritage of London and its transport networks; and
- limited financial and human resources.

Justifying best practice

Achieving best practice is fundamentally about how an interchange is planned, designed and managed. In some instances, best practice outcomes may cost more, particularly where these relate to quality of materials or architecture-led design, but can also result in improved cost efficiency through measures such as reduced energy consumption. Justifying the additional costs whch may be associated with higher quality can sometimes be difficult. TfL's Business Case Development Manual (BCDM) offers some advice, particularly where the benefits relate to:

- facilities for disabled passengers;
- the ambience of the interchange experience;
- modal shift from public transport to walking and cycling;
- enhancement of the urban realm and creation of a 'sense of place';
- improving personal safety and security;
- tackling social inclusion; or
- achieving energy efficiency.

The fact that these benefits may be harder to quantify should not deter aspiration for features which deliver them. Planners may be assisted in quantifying some of these benefits using Pedestrian Environment Review Software (PERS) audits and the BCDM guidance on assessing public realm benefits.

Improving the case for high quality schemes can be achieved by clearly demonstrating, in addition to the traditional benefits (such as journey time savings), the less tangible benefits accruing to all stakeholders. These include, for example increasing the value of businesses within or close to the interchange zone, enhancing perceptions of safety, enhancing the urban realm, meeting Borough targets for socio-economic regeneration or achieving efficiency savings for operators.

Interchange zones

Whilst there are many purpose-built interchange facilities in London, interchange frequently takes place in locations where few formal facilities exist. For example a suburban railway station with bus stops, car park or taxi rank close by is an interchange zone.

Interchange zones often comprise spaces that fall within the control of a number of different organisations and where the public transport operators may have little direct control over management of the space, for example at clusters of on-street bus or coach stops. In many cases, the public highway, managed by Transport for London or the borough, is the 'glue' joining the public transport modes together. Transport providers should work with the Boroughs to define the scope of the interchange zone.

An interchange zone is often a gateway to the public transport network, in that it represents the interface between the public transport services and the surrounding area (or the 'urban context'). This includes connections by the most common mode of access, walking, but can also include provision for access by bicycle, taxi or even the private car.

At the core of the interchange zone, the function of much of the public space may be strongly influenced by its role as a connection between public transport and feeder modes. At the periphery, an interchange zone may simply be the catchment from which passengers are drawn.

To help planners and designers identify the impact that interchange functions place on different public spaces within an interchange zone, spatial management guidelines have been set out. These guidelines will help optimise the quality of the interchange zone and passenger functions resulting in improved efficiency. In so doing, consideration should be given to the differing needs of those using the space and the activities going on there (both relating to interchange or otherwise).

Interchange zones

Interchange Spatial Management

These guidelines refer to different spaces within the interchange zone as one of three types:

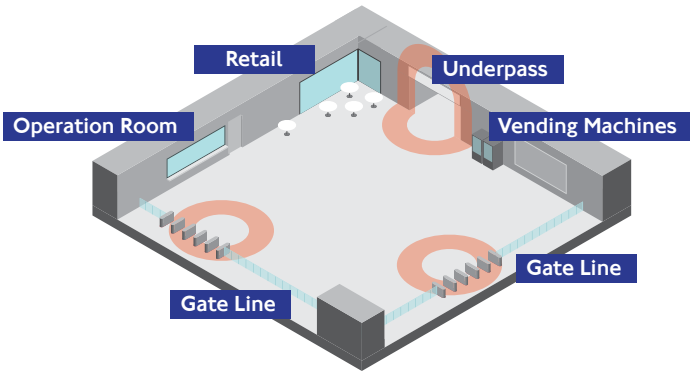
- decision spaces;
- movement spaces; and
- opportunity spaces.

When designing, or seeking to improve an interchange the spatial management principles should be applied at brief development stage then considered throughout design development to evaluate design concepts against anticipated needs; and subsequently written into interchange facility management agreements to ensure design integrity is retained post implementation.

The attributes of these spaces are defined as follows:

Decision spaces

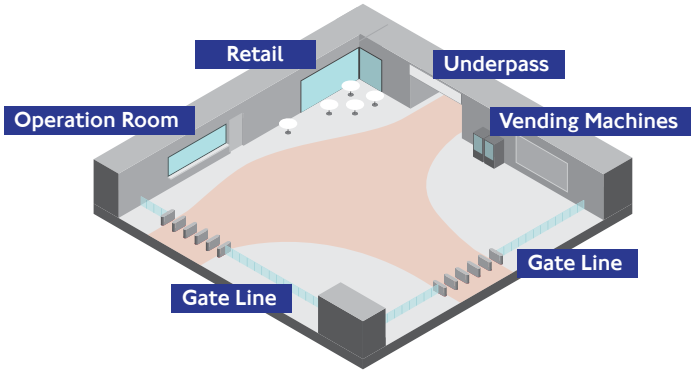
Areas where passenger decisions take priority. Examples include decision points such as entrances, ticket offices or corridor junctions. At these locations there should be good sight lines/ clear signing or transport information. There should be no non-essential physical infrastructure or visual distractions such as advertising/ retail or other land uses that would serve to distract or confuse passengers.



Interchange zones

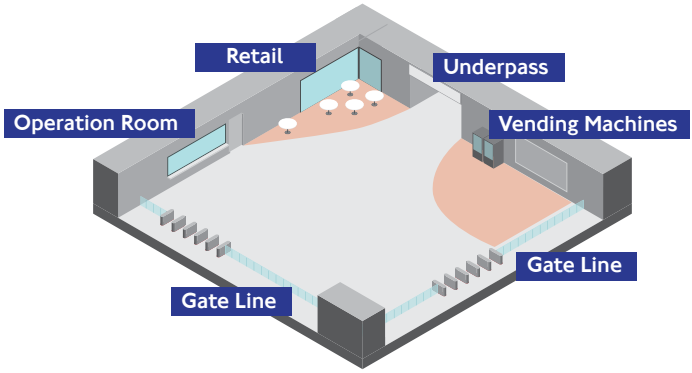
Movement spaces

Movement spaces connect decision spaces. Typically these include corridors and paths specially reserved for passenger movement and connections to/ from/ between transport modes or the surrounding area. These spaces should provide clear, unobstructed routes matched to desire lines. Street furniture, plantings, advertising, information displays, retail boards or any other fixed items should not protrude into these zones but may be located adjacent to them.



Opportunity spaces

Opportunity spaces include those areas of the interchange zone outside the core corridors of movement or decisions. They can accommodate cafés, retail entrances, retail display, seating or landscaping. Street furniture, advertising or other fixed or temporary infrastructure located in these zones must be managed so as not to protrude or interfere with the requirements of decision or movement spaces in adjacent areas.



Design & Evaluation Framework

A Design & Evaluation Framework has been established for this guidance to help planners optimise interchange facility design and operation and measure performance of existing or proposed interchange zones. The framework compliments, rather than replaces, the standard New Approach to Appraisal (NATA) used to evaluate public sector investment in transport improvements based on the five NATA criteria:

- environment;
- economy;
- accessibility;
- safety; and
- integration.

The Design & Evaluation Framework is complimentary as it offers the capability to emphasise different aspects of interchange than in NATA. For example, the framework can capture perceptions (which may differ) from different viewpoints; it also aims to take into account the nature and quality of the design for users, operators and others. These aspects may cut across more than one NATA criteria and might not be properly addressed or fully captured if considered only in the context of the NATA criteria.

Two concepts underlie this approach:

- understanding how an interchange zone is perceived by all those with an interest in it - passengers, non-users, transport operators, regulatory authorities, providers or developers of facilities and services; and
- the flows and movements of people and services within the interchange zone and between the interchange zone and its surrounding area.

Considering the framework from the perspective of those with an interest in the interchange zone such as passengers, local residents, station manager or service providers can help inform our understanding of the optimal configuration of an interchange zone and balance the needs of each of these groups.

The most important needs and aspirations of these groups, where they differ, are set out on the next page.

Design & Evaluation Framework

Commuters

- fully accessible;
- maximum convenience;
- minimal journey times and distances;
- reliability;
- real-time information;
- safety;
- free from passenger congestion;
- convenience shopping.

Other passengers e.g. tourists, leisure

As commuters, plus:

- staff presence;
- simple and intuitive wayfinding;
- service and local information;
- pleasant ambience;
- good waiting areas;
- cleanliness;
- ticket sales and information;
- comparison shopping.

Boroughs and the GLA family

- space and time efficient transport interchange;
- economic growth and regeneration (both socio-economic and physical);
- access to jobs and services;
- greater modal choice;
- protection and enhancement of the built and natural environment;
- improved safety and security;
- improved local image and character.

Transport operators

- fast, simple and convenient connection point between services;
- efficient movement of passengers, minimal obstruction;
- revenue generation;
- efficient movement of public transport vehicles;
- built-in recovery time and resilience to service disruption;
- passenger and vehicle safety and security;
- ticket sales;
- minimising operating costs;
- transport operator facilities and equipment.

Commercial/retail operators and developers

- maximum interior floor space/frontage for retail or other commercial activities;
- external space for commercial, residential or cultural/leisure development;
- high passenger/visitor numbers;
- commercial/financial viability;
- high quality mixed-use space;
- servicing arrangements;
- a recognisable, unique, and attractive location.

Design & Evaluation Framework

The Design & Evaluation Framework uses a question-based approach to achieving best practice. The framework is set out as four Themes, each with four Principles. Each principle includes one or more questions (criteria) that must be considered and addressed during the planning or design stage of an interchange.

To a greater or lesser extent, all sixteen principles will be relevant to any interchange. However, the relative significance or importance of each principle will vary depending on local objectives and strategic priorities; regeneration may be the highest priority at one location whilst transport provision may be the key priority somewhere else and a combination of these priorities will often need to be addressed. These priorities should be agreed jointly with stakeholders at the project outset.

When and how to use the Design & Evaluation Framework

The framework can be used to evaluate the quality or design of an interchange facility or zone at varying project stages. For example, at the start of a project to inform design decisions, during scheme development to ensure that problem areas are being appropriately addressed, or at the end to review outcomes and highlight lessons learned for future interchange schemes.

When the framework is used to evaluate an existing interchange facility or zone, it can act as the basis of the interchange audit. A simple approach to the evaluation is to use a 'traffic light' scoring system whereby each principle is scored as 'green', 'amber' or 'red'. Those principles scoring 'red' or 'amber' may require further consideration if the interchange facility or zone is to be considered best practice.

Using this approach, the quality of an interchange facility or zone can either be evaluated at a high level considering all users together, or evaluated from the different perspectives of passengers, operators or commercial developers.

The framework is not intended to limit flexibility and as such, no weightings are applied (although decisions about the transport functionality of an interchange would always be expected to take precedence over matters of aesthetics). However, where there is a competition for space or the form of the design, it may be appropriate to identify those principles which best reflect the objectives of the project and weight them accordingly.

Design & Evaluation Framework

- a **green** light signifies that all criteria under that principle have been considered and addressed;
- an **amber** light signifies that some, if not all criteria have been considered and addressed; and
- a **red** light signifies that few if any criteria have been considered and addressed.

Efficiency	
Operations	
Movement [within an interchange facility]	
Movement [through the wider interchange zone]	
Sustainability	

Usability	
Accessibility	
Safety and Accident Prevention	
Personal Security	
Protected Environment	

Understanding	
Legibility	
Permeability	
Wayfinding	
Service Information	

Quality	
Perception	
Quality of Built Design	
Urban Realm	
Sense of Place	

Design Themes & Principles

1		**Efficiency** Operations - movement to and within the interchange - sustainability
2		**Usability** Accessibility - safety and accident prevention - personal security - protected environment
3		**Understanding** Legibility - permeability - wayfinding - information
4		**Quality** Perception - built design - urban realm - sense of place

This section sets out an overview of the four design themes, their supporting principles and criteria. Each principle includes one or more criteria, presented as a series of questions, that should be considered and addressed by operators, planners, designers or engineers when evaluating the quality or design of an interchange, both at the start of a project to inform design decisions to improve the interchange zone, and at the end to review outcomes and highlight lessons learned for future interchange schemes.

Further detail on each criteria question is presented in the Interchange Best Practice Guidelines website where you can also find links to relevant detailed design and policy guideline documents.

www.tfl.gov.uk/interchange

London City Airport DLR

Theme 1: Efficiency

Best practice interchanges provide a seamless experience for passengers as they move between public transport services, complete their journey by a feeder mode, or take advantage of the facilities on offer within the interchange. Best practice interchanges allow for efficient movement of people and the public transport services they use, as well as being simple to manage and maintain.

Key Principles:

- **Operations**
- **Movement within an interchange facility**
- **Movement through the wider interchange zone**
- **Sustainability**

White City Bus Station

Operations

Effective planning, management and delivery of interchange operations are essential if an interchange is to deliver an efficient experience for users and cost effective functions for operators. Operations include consideration of service coordination, operating costs, integrated ticketing, unimpeded passenger movement, maintenance, safety and servicing.

Have you considered and addressed?

- **How well are the different interchange functions balanced and integrated?**
- **Does the interchange design offer sufficient capacity to meet demand?**
- **Are public transport services coordinated?**
- **Are ticketing arrangements coordinated?**
- **Are fare paid areas clearly defined and do passengers know when they are moving from one operating environment to another?**
- **Is the interchange safe?**
- **Is maintenance effective and easy to carry out?**
- **Where will temporary information be displayed?**
- **Do access arrangements allow the interchange to be efficiently serviced?**

St Pancras Station

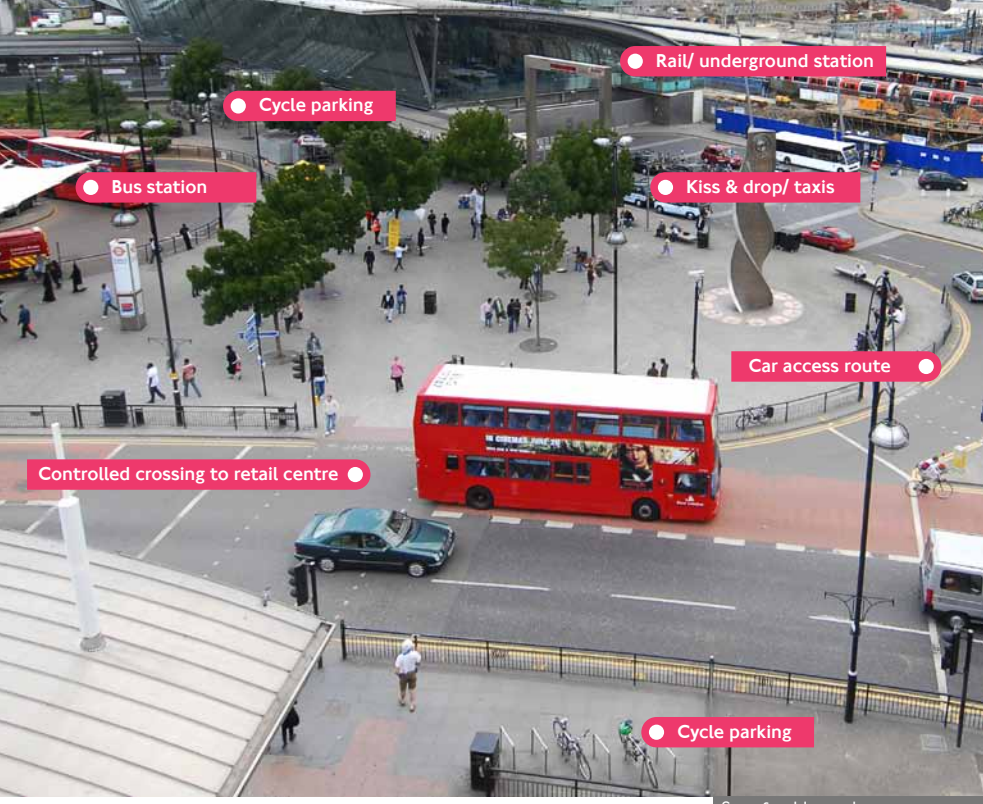
Movement within an interchange facility

Providing for movement between public transport services, feeder modes and other interchange facilities in a balanced way is a prerequisite of any interchange zone. Best practice examples offer routes which feel safe, are accessible to all, are unobstructed, have good surfaces, no directional conflicts or overcrowding.

Plaza Eliptica, Madrid multi -level underground bus/ metro interchange with good legibility and clearly defined movements between services.

Have you considered and addressed?

- **Is movement between locations and services easy and accessible?**
- **Has access to feeder modes been prioritised to balance passenger and operational needs?**
- **Have passenger flow conflicts been minimised?**
- **Are pedestrian routes unobstructed?**



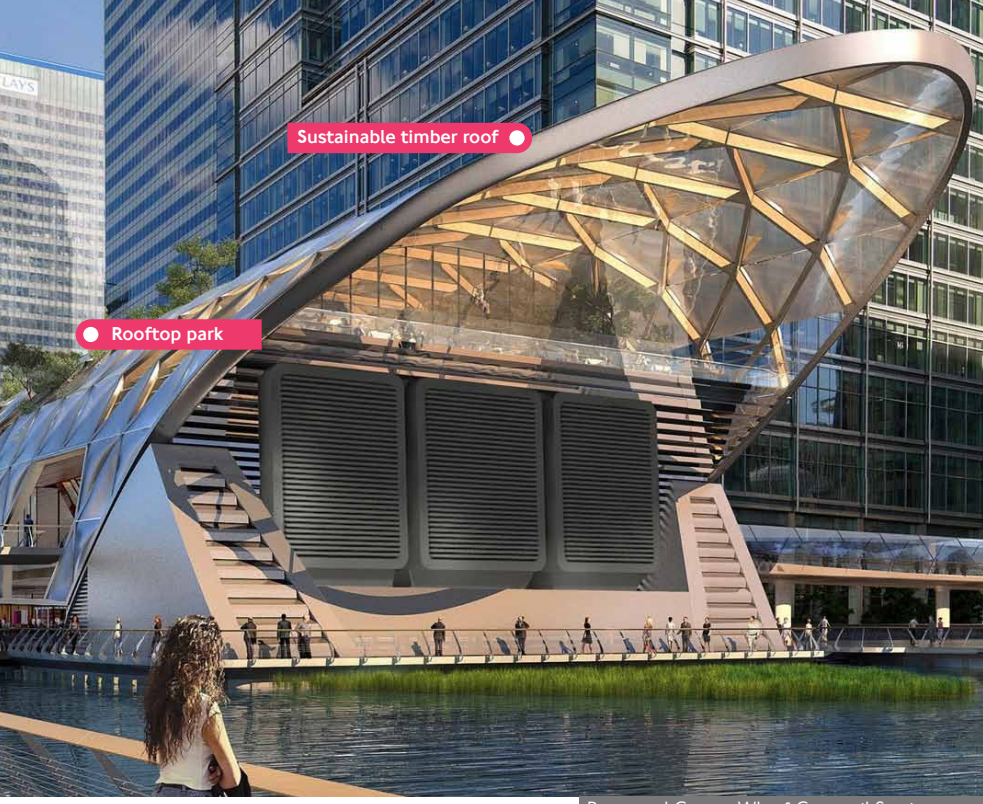
Stratford Interchange

Movement through the wider interchange zone

Connecting interchange facilities with the wider interchange zone surrounding the interchange facility requires an understanding of local patterns of movement and principal local origins and destinations. Movement to, from and through the interchange zone must be considered by all modes including, for example, vehicles using the surrounding road network. Access to the interchange facilities and movement within the interchange zone will be improved through careful design of the local built environment recognising the needs of all users.

Have you considered and addressed?

- **Are patterns of movement understood?**
- **Have routes to and from the surrounding area been optimised?**
- **Are feeder mode facilities appropriate?**
- **Is the interchange zone well connected with external facilities?**



Proposed Canary Wharf Crossrail Station

Sustainability

Sustainable interchange design brings together social, economic and environmental elements related to national, regional and local policies and targets. Sustainable design can make places work better, help to mitigate against climate change, add value to an interchange enhancement business case, and meet with the needs of people who want to use the interchange now and into the future.

Vauxhall Bus Interchange innovative roof design that includes 168 solar panels producing a third of the bus station's energy needs.

Have you considered and addressed?

- **Is the interchange future-proof?**
- **Are materials high quality, durable and sustainably sourced?**
- **Is the design and management of the interchange facility sensitive to the environment and as energy efficient as possible?**

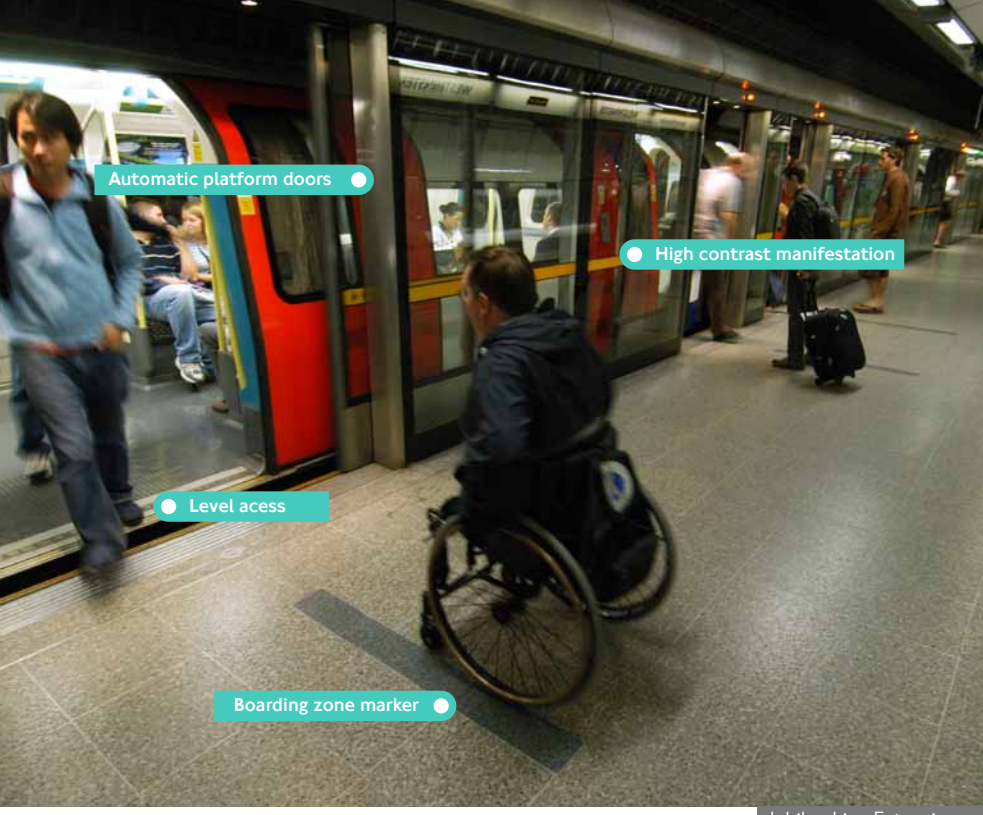
Stratford Interchange

Theme 2: Usability

As well as providing for seamless and efficient movement of passengers and public transport vehicles, best practice interchange zones offer accessibility for all potential users and an environment which is safe, secure and comfortable. Not only are accidents and crime removed, but the fear of these unpleasant experiences is also removed, thereby increasing the usability of the interchange zone.

Key Principles:

- **Accessibility**
- **Safety and accident prevention**
- **Personal security**
- **Protected environment**



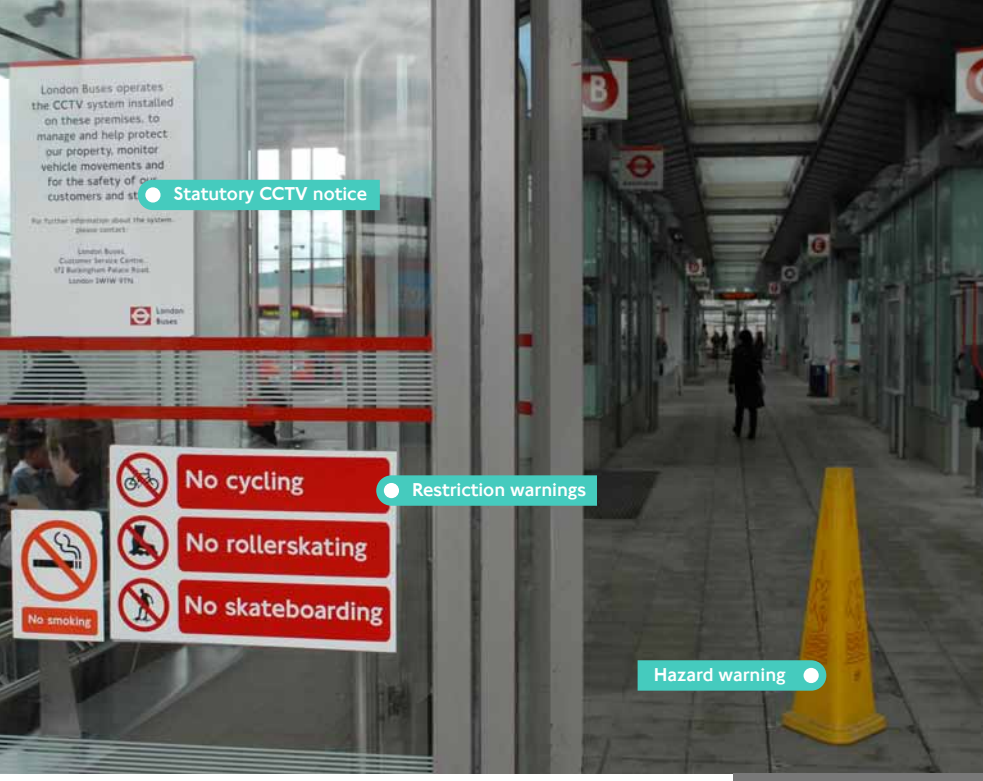
Jubilee Line Extension

Accessibility

Accessible interchange zone design is about making places easier to use for all passengers – including those with reduced mobility. This includes disabled people, those in wheelchairs or otherwise, older people, young children and their carers, people with heavy or bulky baggage, and those with bicycles. The Disability Discrimination Act (DDA) 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 those with disabilities and reducing, or removing, barriers to access both to and within interchange zones. The requirements set out in the DDA should be considered as minimum standards of provision – compliance with the letter of the regulations does not necessarily mean that an appropriate degree of accessibility has been provided. Best practice exists where movement routes for all passengers are one and the same across the interchange zone.

Have you considered and addressed?

- **Can all areas of the interchange zone be reached by avoiding steps?**
- **Is level boarding offered on all services?**
- **Are step and obstacle free routes clearly designated?**
- **Are lift and escalator locations and designs optimised?**
- **Are members of staff available to assist passengers?**



Canning Town Bus Station

Safety and Accident Prevention

All those using an interchange zone, passengers, staff and non-users, should be able to expect to do so in safety and without fear of injury or accident.

All interchange facilities should be designed and operated to be fully compliant with all fire, safety and security regulations. Emergency procedures and an emergency management plan should be agreed between all interchange zone stakeholders and with the emergency services.

Have you considered and addressed?

- **Does the interchange design meet with all emergency and security requirements?**
- **Have potential hazards been minimised?**
- **Are locations where passengers and vehicles meet safe?**

Shepherd's Bush Station

Personal Security

Section 17 of the Crime and Disorder Act (1998), states that: "Without prejudice to any other obligation imposed upon it, it shall be the duty of each authority…to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent crime and disorder in this area." The Police and Justice Act 2006 added specific references to anti-social behaviour, drug and substance misuse to the definition. TfL and local authorities are therefore statutorily required to take all reasonably practicable steps to prevent crime and disorder, and must consider the impact of all of their decisions and actions on opportunities for crime.

In considering opportunities for crime and disorder in interchange schemes it is crucial to involve crime prevention specialists as early as possible in the scheme's design. This will ensure factors such as lighting, clear lines of sight and CCTV are included in the context of existing crime factors in the vicinity.

Have you considered and addressed?

- **Has specialist Crime Prevention Through Environmental Design advice been sought?**
- **Have isolated locations been designed out?**
- **Does the physical layout provide for good natural surveillance?**
- **Has effective use been made of CCTV?**
- **Have vandal-proof fixtures and fittings been used?**

Stratford DLR Station

Protected Environment

Passengers should feel comfortable and secure in waiting environments. Waiting areas should be well lit, well heated and/or ventilated. In locations where temperatures may become especially high and there is little natural ventilation, shade from the sun and air conditioning may also be appropriate.

Waiting areas should also be designed so as to offer maximum levels of natural surveillance (for example with glass walls), and monitored by CCTV or staff.

Have you considered and addressed?

- **Does the interchange zone provide effective climate protection and control?**

Canada Water

Theme 3: Understanding

Understanding of an interchange zone covers more than information – adopting principles of legible design and interchange zone management from the outset will result in places that are intuitive for all users, requiring minimal signing and supporting information and well integrated with their surrounding urban context.

Key Principles:

- **Legibility**
- **Permeability**
- **Wayfinding**
- **Service information**

Canary Wharf Underground

Legibility

A legible environment makes navigation and movement easy and seamless helping improve peoples' understanding, enjoyment and experience. It also reduces feelings of vulnerability caused by confusion or uncertainty in a new environment. Elements that influence legibility include sightlines to destinations, consistency of materials, finishes and furniture, use of lighting and supporting information such as signs, maps and announcements. A legible interchange zone will result in quicker and less stressful transfer between modes, easier identification of landmarks, nodes, pathways and operational thresholds and minimise the need for additional infrastructure and signs to aid movement.

Have you considered and addressed?

- **Does the layout of the interchange zone make it easy for users to find their way around?**
- **Does lighting help to define routes and highlight destinations?**
- **Do surfaces and materials have good visual and physical contrast?**
- **Have infrastructure and street furniture been rationalised?**

St Pancras Station

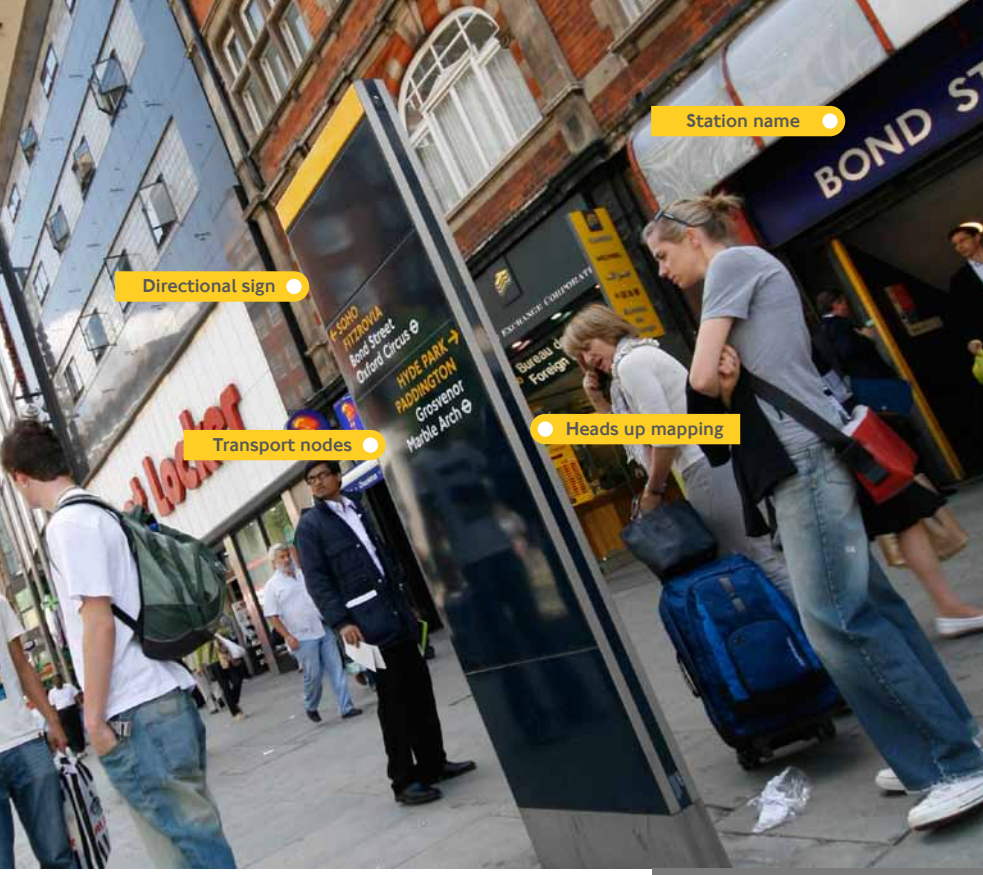
Permeability

A permeable interchange zone gives people the maximum amount of choice for how to move around and makes clear connections to existing routes, facilities and destinations. This will offer all users of the interchange zone more route choices when making journeys.

Stratford Station
open, legible and permeable both within the interchange facility and the wider interchange zone

Have you considered and addressed?

- **Does the interchange zone connect easily with internal and external destinations?**
- **Does the interchange facilitate movement through paid/ controlled areas?**
- **Is it easy to move to and from the surrounding area?**



Legible London pedestrian signing

Wayfinding

Effective wayfinding facilitates movement to, from and within an interchange facility or zone. Good wayfinding includes legible, well-designed spaces; signing and information when and where passengers need it; effective use of surface treatments, materials and lighting; and environmental interventions such as public art combining to create pathways, landmarks and destinations.

Wayfinding should be complementary to the layout of the interchange facility or zone, minimising the need for signing.

Have you considered and addressed?

- **Does wayfinding design and signing facilitate intuitive movement?**
- **Have signs and lighting been installed to support passenger movement needs whilst minimising obstructions to flows?**
- **Has technology been used to support wayfinding?**
- **Are step and obstacle free routes clearly designated?**
- **Do interchange spaces retain their modal identity?**
- **Are members of staff visible and available to assist passengers?**

Vauxhall Bus Interchange

Service Information

Information is a fundamental requirement for a positive passenger experience. Information within an interchange zone can serve multiple uses, providing service information on public transport operations, opening hours and locating the interchange in the local area. Information should be delivered across the full range of media including audio, visual and tactile to meet with the needs of all interchange facility users.

Have you considered and addressed?

- **Does information meet with the needs of all passengers?**
- **Is pre-journey information located and available where and when passengers need it?**
- **Is in-journey information located and available where and when passengers need it?**
- **Is real time information visible, legible and located where and when passengers need it?**

Southwark Underground

Theme 4: Quality

Providing a high quality interchange environment will improve all aspects of a users' experience. A high quality interchange will influence how it is perceived by its users, operators and providers; whether it has characteristics which give it a significant identity; whether its quality of design, configuration and facilities make it feel safe, give it a sense of place or make it a destination in its own right creating social, economic and environmental value and instilling a sense of civic pride in those who use it.

Key Principles:

- **Perception**
- **Quality of built design**
- **Urban realm**
- **Sense of place**

Canning Town Station

Perception

Finsbury Park, secure cycle park London's first smart card cycle park. Located next to a main cycle route to generate demand and has helped reduce local cycle theft.

The perception of an interchange is based on a combination of performance, accessibility and function, all of which form an essential part of a users' experience. In some cases, the interchange may develop into a 'destination', where opportunities present themselves to enhance the interchange experience, lifting spirits for users and encouraging investment and socio-economic and physical regeneration in surrounding areas.

Have you considered and addressed?

- **Do interchange facilities meet the needs of interchange users, operators and owners?**
- **Do interchange facilities add value to the user experience?**
- **Do interchange connections maximise convenience and ease of use?**
- **Does the interchange zone demonstrate high standards of cleanliness, comfort and safety?**
- **Does the interchange zone exceed minimum expectations for quality of materials and finishes?**

St Pancras Station

Quality of Built Design

Well designed interchanges create places that people enjoy and want to use. The design quality of an interchange needs to be assessed in terms of the functional effectiveness of its spaces and the surfaces, appearance and arrangements of the elements included. From an operator and provider viewpoint, these qualities will reflect the types and status of the services on offer, the markets being addressed and the demand being sought.

Achieving a high quality finish can have added value in delivering a landmark status project, helping communicate a sense of place or making it a destination in its own right, creating social, economic and environmental value and instilling a sense of civic pride in those who visit and use it. High quality can also deter anti-social behaviour and vandalism.

Have you considered and addressed?

- **Does the layout of the interchange zone make it easy to find your way around?**
- **Do materials and finishes used add value to the interchange zone experience?**
- **Are products and furniture used within the interchange zone consistent with TfL standards?**
- **Do landscape elements around the interchange zone create added value?**

Canary Wharf Station

Urban Realm

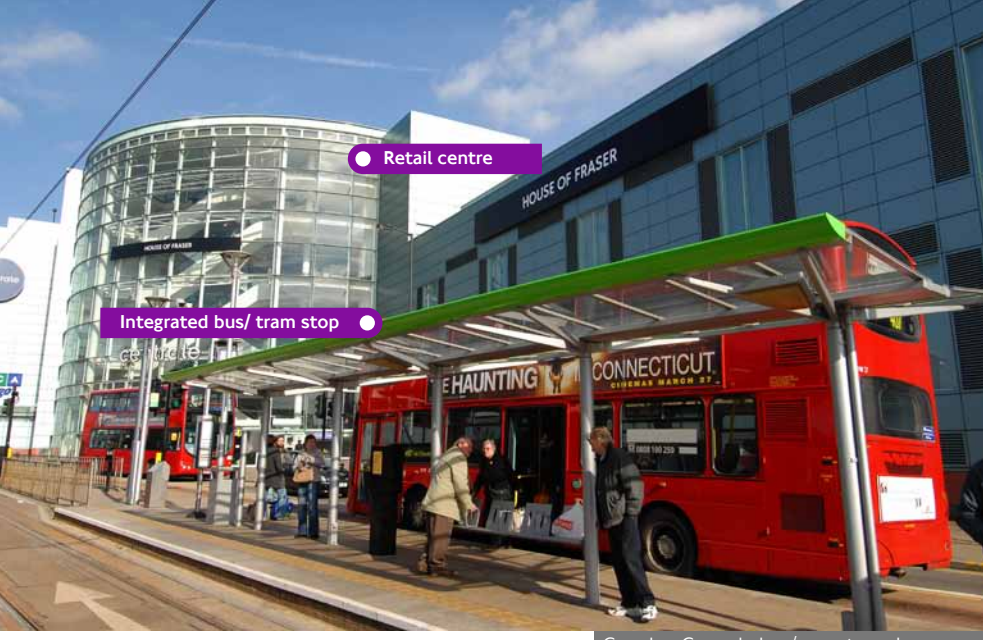
An interchange zone will typically include spaces that are both integral to and related to, but not necessarily a part of, the interchange facility itself. These spaces are as much a part of the overall interchange zone design as its built elements. Their quality therefore needs to be evaluated in a similar manner.

Attractive frontages of commercial space lining the corridors and zones of the interchange zone can be an asset, providing life to the interchange zone and links between internal and open spaces.

Integration refers to the relationship between spaces within the interchange zone and facilities or adjacent buildings and the functions of both. For example, where opportunity spaces within the interchange zone may also provide access to/from retail facilities.

Have you considered and addressed?

- **Are the size of the spaces provided appropriate for predicted current and future uses?**
- **Do activities within the interchange add value and convenience?**
- **Does the design of the interchange zone integrate with the urban context?**
- **Does the spatial design feel open, connected and safe?**



Croydon Centrale bus/ tram interchange

Sense of Place

Design provides the opportunity to create places, streets and spaces that meet the needs of people, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity and maintain and improve local character. Place-making architecture should be encouraged when upgrading or designing a new interchange facility or zone to make the best use of the opportunity for a better public building, helping to support a sense of local pride and civic architecture.

Quality and affordability of facilities will affect the character of the interchange zone and contribute to its quality and sense of place.

Have you considered and addressed?

- **Does the surrounding area have its own function and identity?**
- **Is the interchange zone well connected with external facilities?**
- **Does the quality of design create tangible added value to the local area?**
- **Are commercial facilities on offer appropriate to the interchange zone?**
- **Do landmark buildings or features add to the sense of place?**

Interchange Management

The Interchange Best Practice Guidelines have been developed to encourage cooperation and coordination between those organisations involved in designing, implementing and managing London's interchange facilities with the aim of providing improved levels of service for passengers.

This cooperation is necessary both at individual interchange facilities, and network wide. Network wide cooperation includes network and service planning, ticketing, journey planning information, service disruptions and marketing.

Interchange facility management agreements

If an interchange facility is owned, managed or served by more than one organisation, the organisations involved should agree cooperative procedures. Ideally, these procedures will be set out in an interchange facility management agreement to:

- identify interfaces between all the parties involved in managing and serving the interchange facility including external bodies, particularly the fire brigade, ambulance service, police and local authorities;
- establish clear responsibilities for managing these interfaces;
- provide unambiguous accountabilities for the tasks that are required to ensure that the interchange facility operates successfully.

These procedures should cover day-to-day operation of the interchange facility and stipulate what should happen in case of an emergency or service disruption. Interchange facility management agreements should not be made in isolation from existing agreements, such as for staffing, but should be built into them if commercially or legally feasible, and supplement them where it is not.

Scope of interchange agreements

The scope of the interchange facility management agreement will depend upon the scale and complexity of the individual interchange, but could include:

- agreement of interchange zone spatial management;
- arrangements for cooperation on interchange facility staffing;
- emergency and service disruption procedures;
- information, ticketing and advertising;
- cleaning and maintenance;
- temporary structures;
- hours of operation and access rights;
- passenger facilities provision.

Transport for London Interchange

London has some 600 stations which involve multi-modal interchange between various combinations of TfL and Borough streets, walking, cycling, buses, taxis, tube, rail, river services, light rail and tram.

TfL Interchange monitor any significant new or changed transport and land-use developments at these interchanges, in order to identify any interchange requiring a more coordinated approach. Prioritised interchanges are thus recommended to TfL's Interchange Programme Board (IPB), which directs accordingly. IPB is the joint sponsor group which governs Interchange and is comprised of senior representatives from the Mayoral team, GLA, LDA, Network Rail, TfL Modes (Surface Transport, London Underground and London Rail) and TfL corporate function, under the chair of TfL's MD Planning. Following IPB direction, TfL Interchange will either establish and lead partnerships at the prioritised interchanges to deliver required outcomes, or support other parties by coordinating TfL activities and providing interchange planning and design expertise. Any partnerships led by Interchange are under the governance of a local Joint Sponsor Group, which involves the local boroughs, property developers and any other key sponsors, as well as appropriate representatives from the IPB member organisations.

TfL Interchange lead TfL's involvement in a flexible and balanced way, improving conditions for passengers at multi-modal interchange, while maximising the overall value to London from transport and land use development in and around interchange locations. TfL Interchange's dynamic approach to multi-modal improvements focuses on ensuring transport is accessible and inclusive, providing links between communities and employment, education and many other opportunities

TfL Interchange

throughout London. This work is integral to TfL's delivery of improved transport for London's travelling public and the integration of transport with the wider public realm.

TfL Interchange seeks to create a common purpose and bring stakeholders and organisations together to provide a platform for joined up working to help bring about improved interchange facilities across London. Stakeholders are vital in helping achieve this and TfL Interchange's collaborative approach recognises that the transport requirements of London's interchanges can only be met through the cooperation of all partners.

TfL Interchange currently has a portfolio of programmes which includes key strategic interchanges where opportunities and threats are presented to the transport network by major land-use planning and development activities as well as many smaller, but locally important, interchanges where improvements can make a real difference to customers and their neighbourhoods. Work is also focused on interchanges where significant impacts are presented by major transport developments, such as Crossrail.

TfL Interchange lead through a programme management framework/process (Managing Schemes at Interchanges) which includes the following programme lifecycle phases:

- dynamic planning and prioritisation of interchange schemes;
- interchange requirements definition;
- options investigation and assessment;
- single option development;
- implementation and continued interchange governance; and
- programme closeout.

Further information and contact details can be found on the Interchange Best Practice Guideline website.

Acronyms

Acronyms used throughout this document are listed below.

BCDM	(TfL) Business Case Development Manual
CCTV	Closed circuit television
DDA	Disability Discrimination Act(s)
DfT	Department for Transport
DLR	Docklands Light Railway
GLA	Greater London Authority
LUL	London Underground Ltd
NATA	New Approach to Appraisal
PERS	Pedestrian Environment Review Software
TfL	Transport for London
WebTAG	DfT's Transport Analysis Guidance

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Association of Train Operating Companies

Commission of Architecture and Built Environment

Crossrail

Department for Transport

Greater London Authority

London Climate Change Agency

London Councils

London Development Agency

London Travelwatch

Network Rail

Steer Davies Gleave

TfL Borough Partnerships

TfL Corporate

TfL Interchange Team

TfL London Rail

TfL London Underground

TfL Office of the Commissioner

TfL Surface Transport

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