# 3.6. City streets

Introduction

Successful city streets should provide a world-class, pedestrian friendly environment while ensuring excellent connections with the wider transport network.

Two case studies were undertaken to understand the challenges and potential solutions to achieve the aim for city streets. These case study locations were:

- Oxford Street
- Wellesley Road
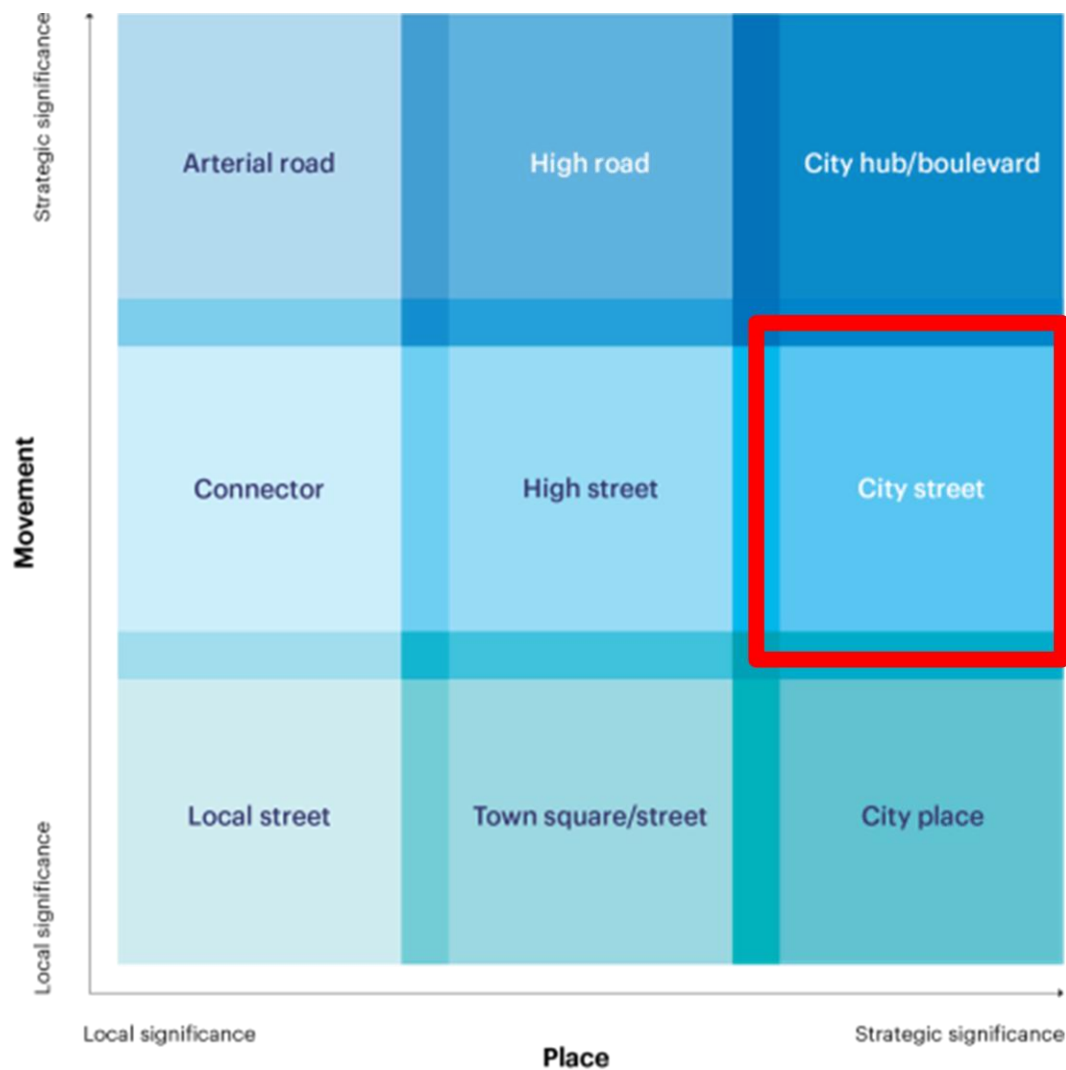
Study: Oxford Street

Central London; Westminster

Summary

Context:

Oxford Street, the UK's top-ranked retail location, and the busiest retail street in Europe, is crucial to London's GDP and attracts more than 500,000 daily visitors. It is a key east-west route for bus services and carries significant numbers of taxis and cycles, all competing for road space. Retailers, landowners and businesses demand a world-class public realm to compete with other retail locations, both domestic and international.

Specific findings and short-term recommendations:

Traffic movement conflicts with the place functions for visitors and shoppers, contributing to high levels of pedestrian crowding on footways.

In the short term, the public realm could be enhanced by continued street de-cluttering and the provision of public spaces. More diagonal crossings and the use of Pedestrian Countdown signals would improve the visitor experience, along with additional temporary street closures to motorised traffic. In the medium term, Crossrail will increase visitor numbers and the demand for footway space.

Importance of strategic and long-term measures:

Pedestrianisation would require re-routing bus services to adjacent roads which would be unpopular and reduce accessibility to the street itself. The opening of Crossrail will reduce demand for some bus services accessing Oxford Street. The opportunity also exists to significantly reduce traffic by making it a bus and cycle-only street, with servicing, deliveries and taxis allowed outside peak shopping hours.
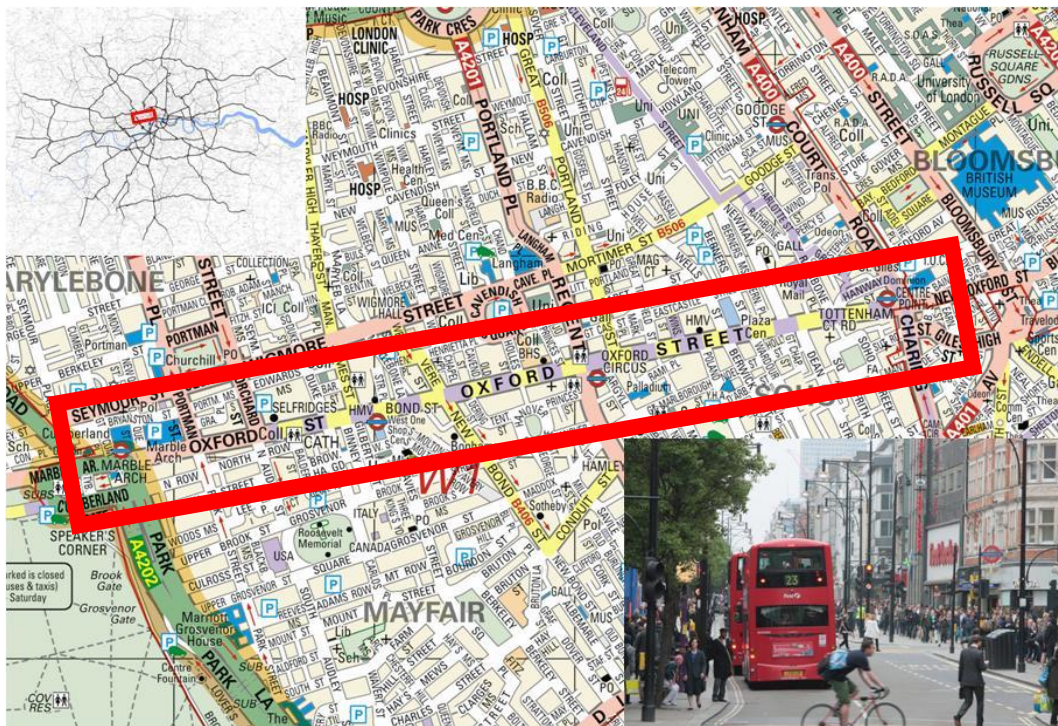
Road users and functions   Oxford Street

Oxford Street is a world-class retail location attracting 500,000 visitors each day, making it Europe's busiest retail street. As a key transport corridor, the numbers of buses and taxis are high. Although other retail centres have suffered significant declines in footfall as a result of the recession, the level of tourist spend on Oxford Street has kept pedestrian numbers relatively constant in recent years. The majority of pedestrians on Oxford Street arrive using Underground services (only three per cent of visitors live within a 10 minute walk), which means that the footways around the entrances to Bond Street, Oxford Circus and Tottenham Court Road are particularly congested.

Of visitors not arriving by Underground, many arrive by bus. Oxford Street is the primary east-west bus corridor in Central London with 175,000 daily boarders and alighters, and 43,000 through passengers. Buses account for over half the vehicle flows but carry 87 per cent of vehicular passengers. Taxis account for a large share of vehicular traffic, particularly in the central area from Selfridges to Oxford Circus. The cycle mode share is also high and increases towards the eastern section of the street.

Restrictions have been placed on private motorised traffic on Oxford Street and they are not permitted between 07:00 and 19:00, apart from at the eastern and western ends, which results in a low mode share. There are also restrictions on servicing times and access to retail premises. However, service vehicle peaks generally occur outside peak pedestrian hours, so there is limited conflict.
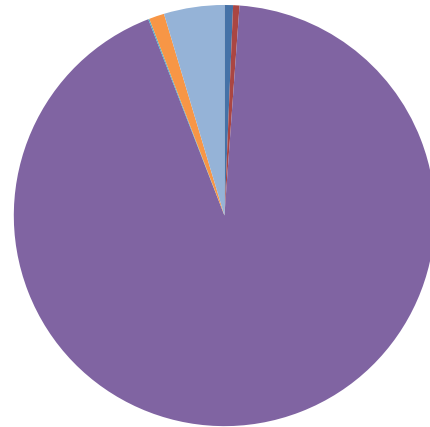

Based on the analysis of this study area, Oxford Street should be considered as an example of the 'city street' street-type. It is important to note that this definition may change over time as the users and functions of the road change.
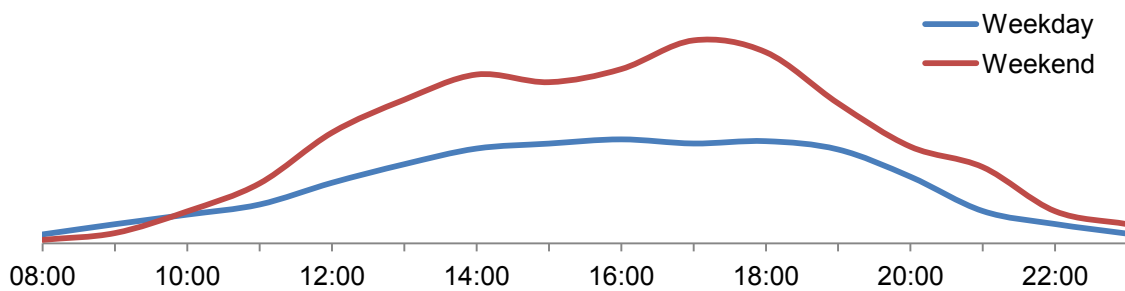
Vehicle mode share
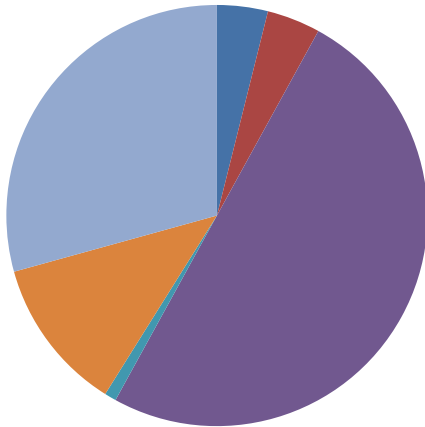
People movement mode share*
*based on vehicle occupancy

Mode share data is taken from manual classified counts over the course of a full day.

| Car | LGV | HGV | Bus/Coach | P2W | Cycles | Taxi |

Pedestrian profile

— Weekday
— Weekend

Pedestrian profile data is taken from pedestrian counts.
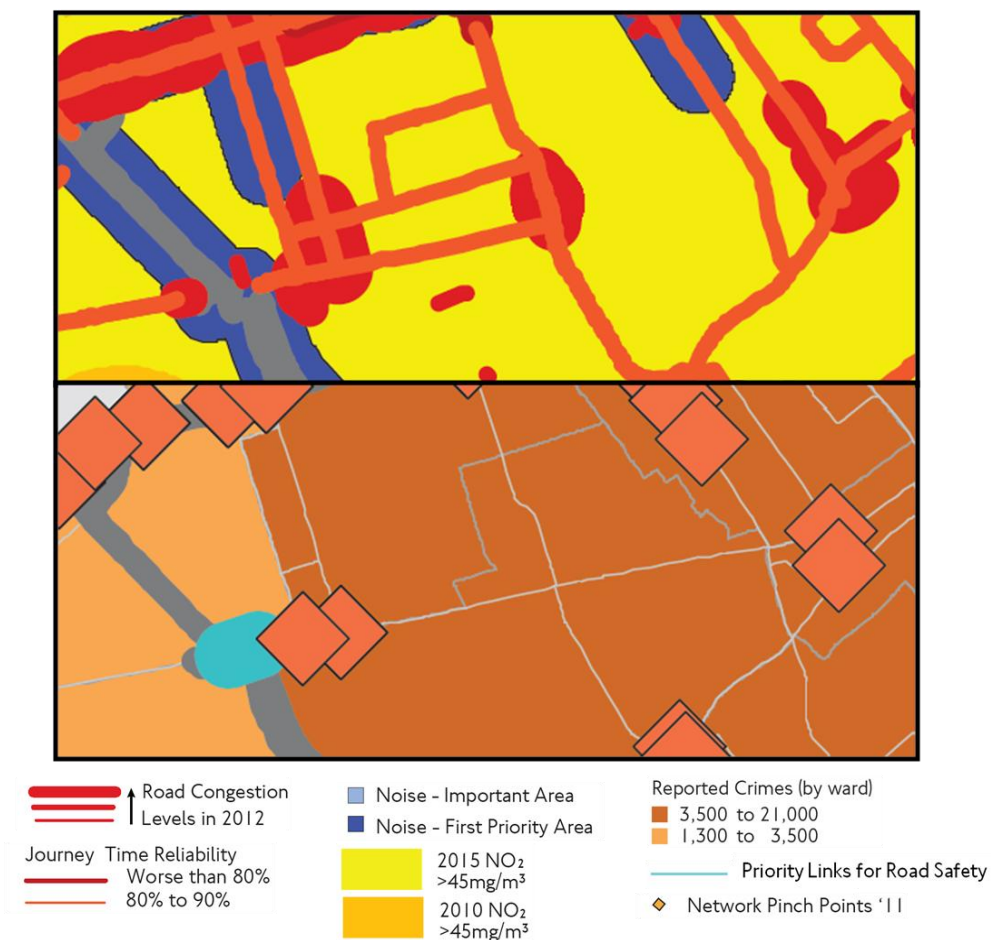
The main priorities for city streets are:

- A world-class public realm

- Free pedestrian movement with the ability to cross the road along desire lines

- Bus priority measures to allow reliable journeys, as buses are important to get people to these locations

- High footfall and visitor satisfaction

Fulfilling the street-type priorities

Oxford Street has an extremely high place function in terms of the volumes of pedestrians attracted by its established retail centre. However, the public realm is under-used and inconsistent along its length. The central section of Oxford Street has the highest quality of surface materials and street furniture, but the use of lower quality materials at either end of the street dissuades retailer investment in these areas. The factors of a lack of space on Oxford Street and under-used side streets mean that public space is limited.

The median strip aids pedestrian crossing along desire lines, but pedestrian movement is severely hindered by footway congestion, with pedestrian comfort levels falling into the lowest brackets. Buses are given a strong priority by the restrictions on private vehicles but there is still conflict with pedestrians and taxis.

Challenges maps

Road Congestion Levels in 2012

Journey Time Reliability
Worse than 80%
80% to 90%

Noise - Important Area
Noise - First Priority Area

2015 NO$_2$ >45mg/m³
2010 NO$_2$ >45mg/m³

Reported Crimes (by ward)
3,500 to 21,000
1,300 to 3,500

Priority Links for Road Safety
Network Pinch Points '11

Moving:

- Alleviating pedestrian footway crowding – pedestrian comfort falls within the range 'very restricted' to 'extremely restricted'
- Maintaining access to bus services
- Utilising side streets for cycle parking or taxi ranks
- Maintaining movement of all modes given the probable increases in footfall following the opening of Crossrail, resulting from the larger catchment area

Living:

- Ensuring a high quality visitor experience with a world class urban realm
- Minimising street clutter and improving utilisation of public space
- Utilising under-used side streets as public spaces or pocket parks, whilst respecting the residential communities that live on these streets

Protecting:

- Continuing improvements in road safety to reduce KSI figures. There were 71 casualties between 2009 and 2012

Functioning:

- Satisfying demands on waste management and the servicing of retail premises
- Using the road space in the best way to minimise conflict between pedestrians and vehicles
- Increasing the provision of cycle parking, as the demand currently exceeds the supply
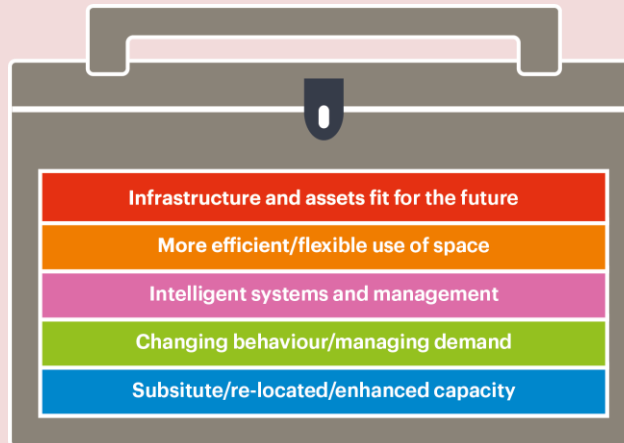
Sustaining:

- Improving the air quality for the high numbers of pedestrians whilst retaining the movement function for bus and taxi passengers. Oxford Street is an air quality focus area with very high concentrations of NO_2 and medium concentrations of PM_{10}, with taxis the greatest contributors of air pollutants per passenger kilometre
- Reducing the high noise levels on Oxford Street

Unlocking:

- Retaining and enhancing the significant economic activity of Oxford Street
- Offering a compelling alternative to integrated 'mall' competitors such as the Westfield centres and Brent Cross
- Expanding the 'prime attraction zone' along adjacent and crossing side streets

The Roads Task Force has identified five key toolbox compartments. TfL, the London boroughs and others have a range of 'tools' at their disposal to deliver improvements, examples of which are listed below.

Infrastructure and assets fit for the future

More efficient/flexible use of space

Intelligent systems and management

Changing behaviour/managing demand

Subsitute/re-located/enhanced capacity

Short-term specific measures (pre-2016):

- De-cluttering Oxford Street to improve the public realm and visitor experience, particularly at the ends of the street

- Introducing pocket parks or more cycle parking to increase footway space and make better use of side streets

- Introducing signal optimisation and more Pedestrian Countdown signals to reduce congestion and support the area as a world-class retail centre

Medium-term specific measures (2016-2020):

- Considering the removal or rerouting of buses, restrictions on taxis, and potential full pedestrianisation to cater for higher pedestrian numbers and lower bus demand following the opening of Crossrail

- Extending late rental charges to cover works on footways

Long-term specific measures (beyond 2020):

- Considering other potential long-term options for Oxford Street (for example a shuttle system along Oxford Street). This would require extensive further analysis before the viability of such schemes were considered

Potential strategic measures:

In order to ensure the correct balance between movement and place on this road, a combination of local and strategic measures is required. This will be particularly necessary in the long-term following the opening of Crossrail as pedestrian volumes around Dean Street and Tottenham Court Road will increase significantly. Potential strategic measures include:

- A targeted travel demand management programme, as outlined in the medium-term measures. This could involve restricting taxis or re-routing bus services to permit greater ease of pedestrian movement and improve road safety. However, this could impact on congestion on neighbouring streets and reduce access for visitors travelling to Oxford Street

Study: Wellesley Road

Croydon Town Centre; Croydon

Summary

Context:

This key transport corridor runs through the heart of the Croydon Metropolitan Centre. The area benefits from excellent transport connections and established commercial, retail and civic functions.

Specific findings and short-term recommendations:

Croydon Metropolitan Centre has suffered from a period of decline, with many under-used commercial properties and a poor urban realm. Generally there is clear acknowledgement that Croydon needs a high-quality, integrated urban realm as part of the catalyst for future investment.

Measures are under way through the Connected Croydon programme, supported by the Mayor of London and the borough, with the aim of enhancing its place functions and reducing the severance created by the road through better wayfinding, pedestrian crossings, and improved cycling facilities.

Importance of strategic and long-term measures:

The proposed redevelopment of the Whitgift Shopping Centre by Westfield and Hammerson represents a significant opportunity for Croydon to renew its commercial and retail offer. The development will require good access via Wellesley Road. Strategic measures in the locality and beyond are required to balance the additional demand from this new development with the aspiration for an improved urban realm.
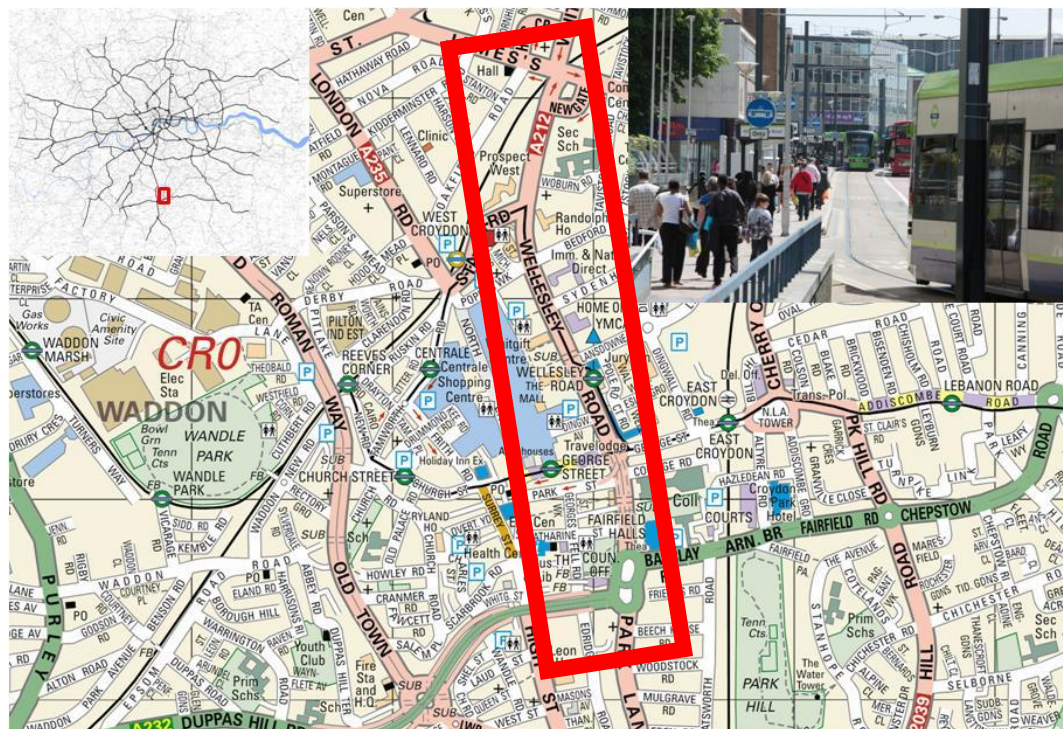
Road users and functions

The character and purpose of Wellesley Road varies significantly. The southern end is a dual carriageway route that feeds into a major central gyratory. On the west side, the Whitgift shopping centre is a major trip attractor, though few people use Wellesley Road to access the centre. There are also a number of commercial properties along the road, but many are either vacant or do not front onto Wellesley Road. In contrast, the northern end is a dedicated Conservation Area with historic and architectural significance.

Although car usage on Wellesley Road has noticeably reduced in recent years, it remains the dominant mode. The majority of car journeys originate north of Wellesley Road, and end just south, in the town centre area. Wellesley Road is also used by buses both as a destination and for through movement, which is reflected in the high share of people movement. The road is also served by all four Tramlink services. Cycle flows are generally low on Wellesley Road.

Based on the analysis of this study area, Wellesley Road should be considered as an example of the 'city street' street-type. It is important to note that this definition may change over time as the users and functions of the road change.

Pedestrian profile*

08:00   10:00   12:00   14:00   16:00   18:00   20:00   22:00
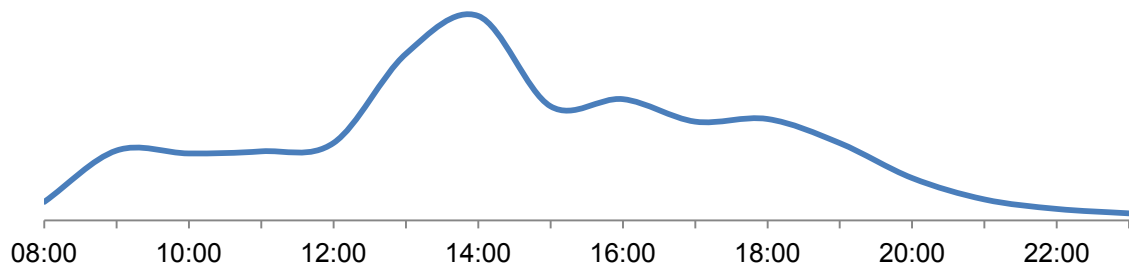
Pedestrian profile data is taken from pedestrian counts.

*Note that vehicle and people mode share charts have not been included in this summary due to lack of available information on tram passenger movement on Wellesley Road

Street-type priorities
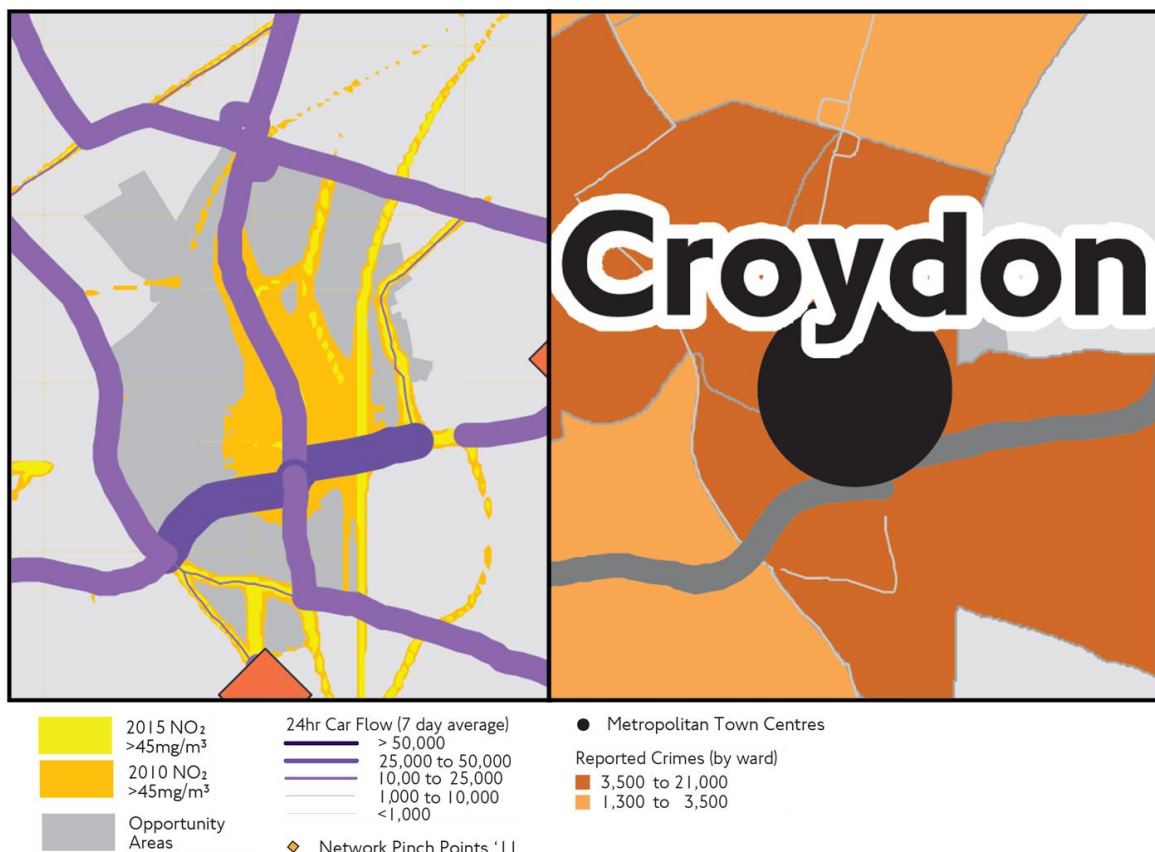
The main priorities for city streets are:

- A world-class public realm

- Free pedestrian movement with the ability to cross the road along desire lines

- Bus priority measures to allow reliable journeys, as buses are important to get people to these locations

- High footfall and visitor satisfaction

Fulfilling the street-type priorities

Aside from the bus priority measures, which are already in place on Wellesley Road, the remaining priorities are not achieved as vehicular movement is given greater priority.

Currently the road functions more as a connector street-type, which reflects not only the volumes of vehicular and pedestrian movements, but also the current balance between movement and place. However, the growth aspirations and development opportunities on Wellesley Road present significant opportunities and requirements for Wellesley Road to move towards a city street environment.

Challenges maps

2015 NO₂ >45mg/m³
2010 NO₂ >45mg/m³
Opportunity Areas

24hr Car Flow (7 day average)
> 50,000
25,000 to 50,000
10,00 to 25,000
1,000 to 10,000
<1,000
◇ Network Pinch Points '11

● Metropolitan Town Centres
Reported Crimes (by ward)
3,500 to 21,000
1,300 to 3,500

Moving:

- Facilitating easier means of local movement
- Improving opportunities for pedestrians to cross the road safely at surface level
- Improving interchanges for people moving around the Town Centre
- Reduce severance and the disjointed nature of Croydon Town Centre created by Wellesley Road
- Increasing the provision for cyclists along the road
- Providing space to ensure reliable movement of trams and access to tram stops for pedestrians

Living:

- Providing a more integrated public realm network
- De-cluttering and opening up public space
- Providing more public spaces for people to spend time in

Protecting:

- Ensuring that safety remains a priority for all road users and is not compromised by any new developments or changes to the layout of Wellesley Road
- Improving the perception of safety of subways under Wellesley Road

Functioning:

- Maintaining access for servicing and delivery traffic serving existing shops and hotels and new developments
- Improving the areas around transport hubs to maintain Croydon's function as a major interchange
- Increasing the provision of cycle parking
- Maintaining access for vehicles and pedestrians following the redevelopment of the Whitgift Centre, which is likely to generate higher levels of traffic and footfall

Sustaining:

- Reducing noise levels (which exceed75 dB(A)) for users of Wellesley Road and the adjacent businesses at the southern end
- Improving air quality, as Wellesley Road has been identified as an Air Quality Focus Area

Unlocking:

- Seizing new opportunities to attract inward investment and increase commercial activity
- Responding proactively to the expected population growth by creating open, connected spaces for people to visit

The Roads Task Force has identified five key toolbox compartments. TfL, the London boroughs and others have a range of 'tools' at their disposal to deliver improvements, examples of which are listed below.
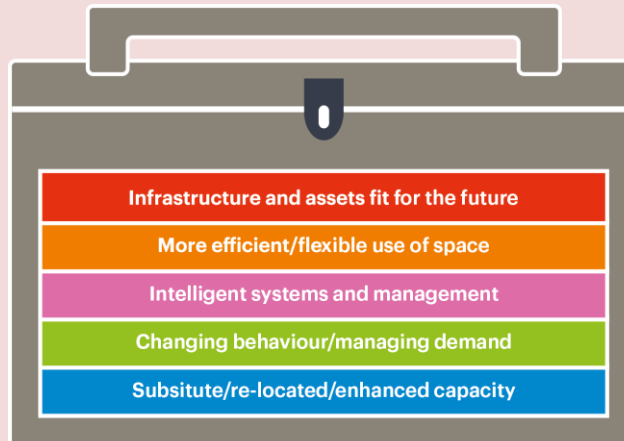
Short-term specific measures (pre-2016):

- De-cluttering and aligning street furniture to improve the urban realm

- Providing new at-grade pedestrian and cycle crossings (eg Lansdowne Road, Bedford Park) and upgrades to existing crossings (eg George Street) to address severance and reduce instances of dangerous informal crossings

- Traffic calming measures and a lower speed environment, to reduce the severance caused by Wellesley Road

Medium to long-term specific measures (2016 onwards):

Subject to the outcome of the planning application, the re-development of the Whitgift Centre could have transformative impacts on Wellesley Road. This would require:

- Providing additional public spaces and new pedestrian links to the town centre

- Re-profiling the underpass at its northern end, to better integrate entrances and exits from the new development into the local road network

- Relocating the Wellesley Road tram stop

Irrespective of the development, a further long-term measure is:

- Ensuring a better balance between access and a high quality public realm through long term interventions on Wellesley Road and the surrounding highway network

Potential strategic measures:

In order to ensure the correct balance between movement and place on this road, a combination of local and strategic measures is required. Potential strategic measures include:

- A targeted travel demand management programme, to reduce the volume of car trips. This should involve encouraging behavioural change through promotion of car sharing schemes and public transport services

- Active network management, to give priority to sustainable modes

City street – typical issues (as found in the case studies)

1. Wide one-way system encourages high speeds, impedes pedestrian crossing movements, reduces safety for cyclists, and reduces the overall vitality of the street

2. Confusing and inefficient bus routes created by one-way system

3. Cluttered streets with redundant and unnecessary signage

4. Guardrails and bollards obstruct pedestrian desire lines and create undesirable visual clutter, and can be a danger for cyclists

5. Visual clutter caused by mis-aligned street furniture and disused telephone booths

- Lack of opportunities for informal pedestrian crossings

- Lack of cycle parking, seating and other useful street furniture

6. Poorly maintained footways and road surface

7. Poorly distributed, variable quality and cluttered streetlights
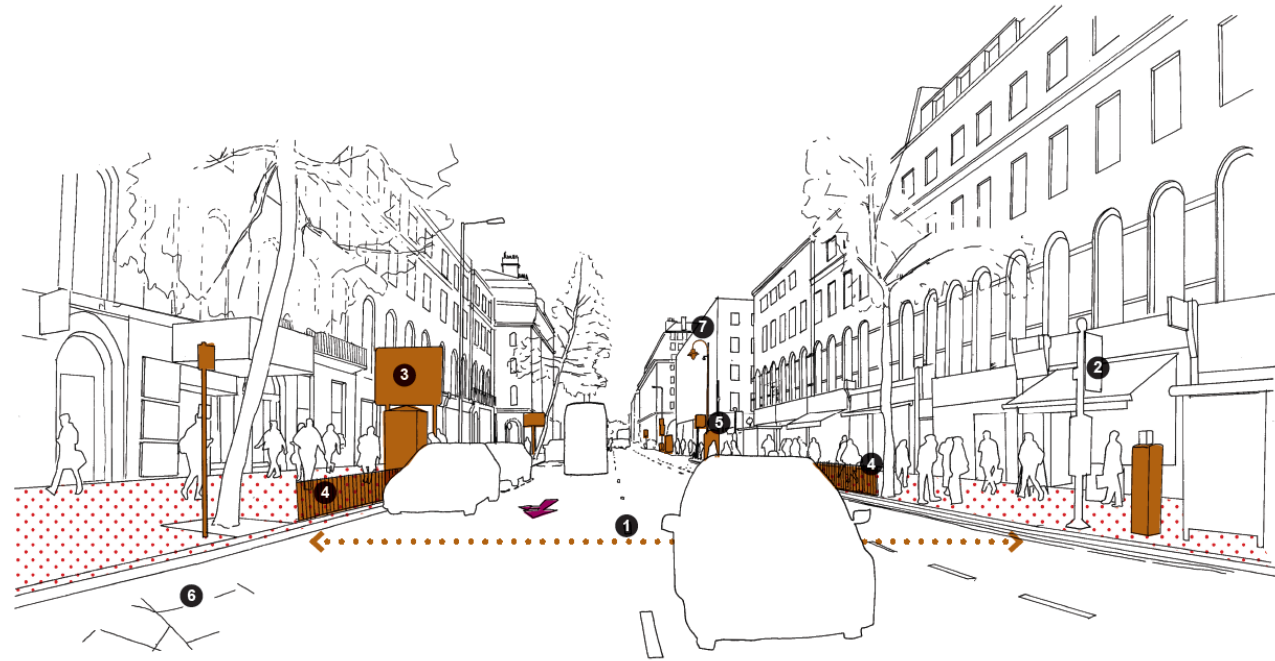
City street – ingredients

1. One-way gyratory system removed and lanes reconfigured to reduce vehicle speeds

2. Lane restricted to buses and cycles only, to improve cycle safety and bus journey time reliability

3. Median strip to allow informal pedestrian crossings, with formal crossings at key junctions

4. High-quality bus stop with a large shelter and live service information

5. High-quality, centrally located street lighting. Additional lighting mounted onto building facades where practicable, to reduce clutter

6. Inset loading bays to improve ease of servicing and deliveries

7. Street trees with high-quality grates and lighting, and potential for sustainable drainage systems

8. Bespoke seating design to give greater area identity

9. Legible London sign, to improve wayfinding

10. Cycle hire docking station

11. High-quality cycle parking

● High-quality materials and finishes to present a world class public realm

● Visual clutter, such as unnecessary guardrails and disused phone booths, removed to improve public realm

12. Café seating along improved shop forecourt area

City street – aspirational view

Summary

Successful city streets should provide a world-class, pedestrian friendly environment while ensuring excellent connections with the wider transport network.

Having considered the aims and undertaken the case studies, the following approach is suggested for city streets:

Functions

- Widely known for their concentration of commercial and cultural street activity
- Important role in perceptions of London as a place to visit and do business in. They cater for large volumes of visitors
- Provides for essential traffic, in particular public transport and freight/servicing

Users

- High pedestrian levels
- Buses and taxis make up a significant proportion of motorised traffic

Challenges

- Constrained pedestrian movement
- Road safety
- Accommodating freight and servicing
- Congestion

Priorities (key service standards)

- A world-class public realm
- Free pedestrian movement with the ability to cross the road along desire lines
- Bus priority measures to allow reliable journeys, as buses are important to get people to these locations
- High footfall and visitor satisfaction

Providing for other users

- Flexible use of space to cater for demand at different times of the day, for example, pavements with inset loading bays to cater for pedestrians during the day and deliveries at night
- Diversion of general traffic on to more efficient routes
- Provision for coach and taxi access

3.7. Local streets

Introduction

Successful local streets should provide quiet, safe and desirable residential areas that foster community spirit and local pride.

Details of the challenges and potential solutions in achieving the aim for local streets can be found in the 'Better Streets Delivered' supporting document.

Local street – aspirational view

1. No through-route from road, to ensure usage only by local motorised traffic and prevent 'rat-running'

2. Safe walkways for families and children

● Safe places for children to play

3. Safe routes for cyclists as part of Quietway network

4. High-quality cycle parking

5. Different road surface to highlight parking bays, which do not obstruct the road

6. Threshold treatment to highlight pedestrian crossing point and mark transition to residential area

7. Change in road alignment to calm vehicular traffic and encourage lower vehicle speeds

8. Street trees along both sides of road

Summary

Successful local streets should provide quiet, safe and desirable residential areas that foster community spirit and local pride.

The following approach is suggested for local streets:

Functions

- The majority of Londoners live on streets that are used mainly by local vehicles and people who live on them to access their homes, go to work, school or to access local shops and services
- Some are also used by cyclists as an alternative to busier routes
- Can provide spaces for children to play
- The majority of the Quietway cycle network will be made up of local streets and connectors

Users

- Private vehicles
- Cyclists
- Pedestrians
- Delivery vehicles

Challenges

- Rat-running
- Poor lighting
- Management and maintenance issues

Priorities (key service standards)

- Accessible and safe pedestrian environment
- Parking for residents and car clubs/car sharing
- Providing an environment serving the diverse needs of local residents including older people and children

Providing for other users

- Through movement of traffic should be discouraged with connectors providing better alternative routes

3.8. Town squares/streets

Introduction

Successful town squares/streets should provide focus areas for community activity and services (retail, leisure, public, etc) with ease of pedestrian movement a priority.

Details of the challenges and potential solutions in achieving the aim for town squares/streets can be found in the 'Better Streets Delivered' supporting document.

	Local significance		Strategic significance
Strategic significance	Arterial road	High road	City hub/boulevard
Movement	Connector	High street	City street
Local significance	Local street	Town square/street	City place

Place

Town square/street – aspirational view

1. Shared space design to create a vibrant town street

2. No through-route for motorised traffic, to prevent 'rat-running'

3. Space allocated for market stalls to increase street trading and pedestrian footfall

4. Café seating along shop forecourt area

5. High-quality materials with a flush surface

6. Space for car parking in off-peak periods

7. Access for servicing and deliveries at low speeds

8. Street trees

9. High-quality cycle parking

Summary

Successful town squares/streets should provide focus areas for community activity and services (retail, leisure, public, etc) with ease of pedestrian movement a priority.

The following approach is suggested for town squares/streets:

Functions

- A destination for local people accessing local shops or services such as street markets

Users

- Mainly used by pedestrians with the focus on the street activity generated and little through movement

Challenges

- Difficult to provide good facilities for delivery and servicing during particular times of the day when footfall is high
- Poor-quality urban environment that can impact the vibrancy of these streets

Priorities (key service standards)

- Free pedestrian movement in a good-quality environment
- Safe and secure urban environment
- User satisfaction/footfall

Providing for other users

- Town squares need to be well-connected to be effective – good transport facilities at the edges need to be provided such as cycle parking, bus stops and parking spaces
- Access can be provided through these streets for other modes out-of-hours
- Providing adequate delivery/servicing facilities through inset loading bays, delivery and servicing plans, and timed access

3.9. City places

Introduction

Successful city places should provide world-class, pedestrian friendly environments to support their role as places of major significance and encourage high levels of street activity and vibrancy.

Details of the challenges and potential solutions in achieving the aim for city places can be found in the Better Streets Delivered supporting document.
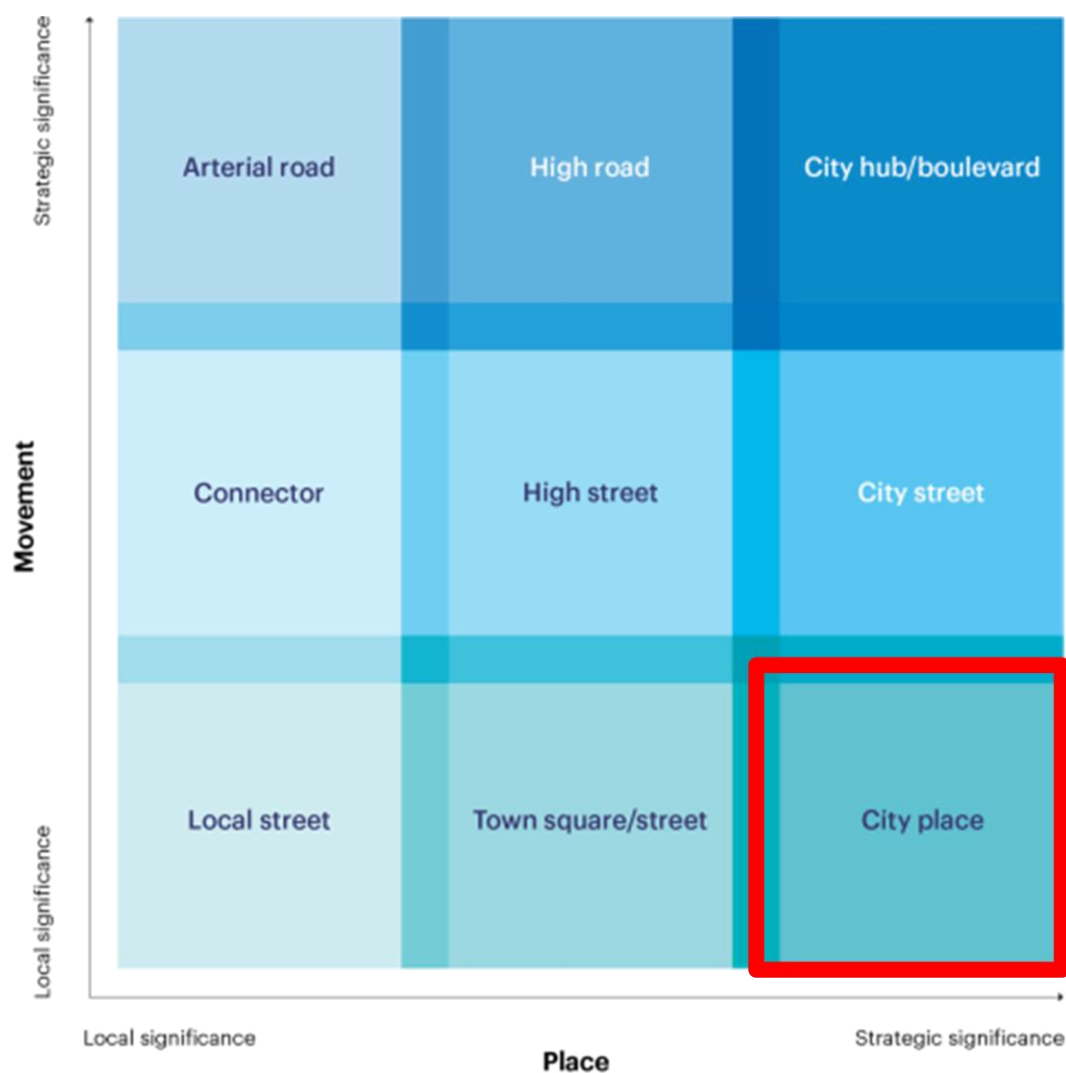
City place – aspirational view

1. Area closed to motorised traffic to provide pedestrian priority environment

● Accessible links to public transport modes

2. Removable bollards to allow emergency access and facilitate servicing and deliveries

3. Appropriate spaces for street performers

● High-quality materials and finishes to present a world class public realm

4. Conservation area grade yellow lines

5. Accessible paving along edge to facilitate wheelchair movement

6. Legible London sign, to improve wayfinding

7. High-quality cycle parking

8. Café seating areas delineated using pavement studs

● Late opening hours encouraged to activate night-time ambience

Summary

Successful city places should provide world-class, pedestrian friendly environments to support their role as places of major significance and encourage high levels of street activity and vibrancy.

The following approach is suggested for city places:

Functions

- Areas with a high concentration of commercial activity, entertainment venues and cultural landmarks
- These places are internationally known for their distinctive character and make a big contribution to the attractiveness of London

Users

- Almost entirely pedestrians, as access for motorised vehicles is restricted most of the day

Challenges

- These places have the highest concentration of street activity and accommodating this while providing for through-movement for pedestrians can be difficult
- Similarly, making provision for delivery and servicing can also result in competing demands for space

Priorities (key service standards)

- High-quality, safe and secure pedestrian environment
- Footfall/ambience/user satisfaction

Providing for other users

- Motorised traffic is not generally catered for in these areas, however provisions should be made to allow access for delivery and servicing vehicles, ideally out-of-hours
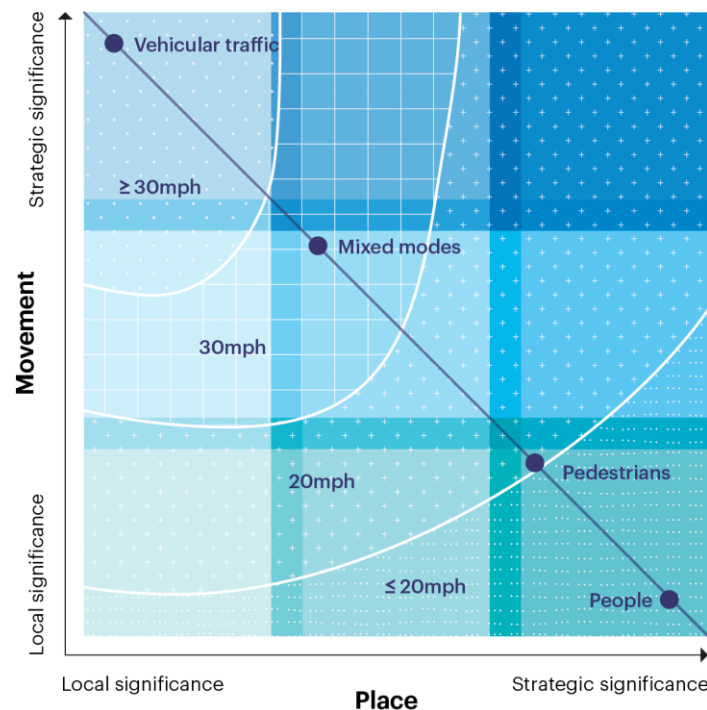
4. Implications of the street-types

For ease of reference, this text is taken from the RTF report, pages 94-99.

4.1. The speed environment

The RTF recommends that the speed environment is linked to the different street-types as shown in the figure below.

The implications of street-types for the speed environment

Speed limits will play an important role where movement and place need to be more balanced, where there are high levels of pedestrian and cycling activity and where safety issues need to be tackled.

A slower speed environment could deliver significant benefits in many places and for particular users, with less adverse impacts for movement (for example vehicular flows) than other potential interventions.

Win-win solutions should be the primary aim, and innovative/flexible functionality can help this.

4.2. Development of service standards

Some of the street-types, such as city streets, some high streets and town streets, may lend themselves to more of a 'shared space' approach, where a more equal balance can be struck.

It will often be necessary, however, to make clear choices in terms of how capacity is allocated and used (including by time of day). In part, the realities of higher service levels for some users are defined by what is not being delivered for others.

For example, how long a pedestrian should expect to wait to cross a suburban high street will be different to the waiting time on a busy arterial road where the focus on motor vehicle movement and journey time will be greater, and provision for pedestrians consequently less.

This framework should help guide understanding and expectations. The figures on the next page show how particular priorities change across the different street-types.

Within the agreed priorities, there may still be some minimal standards or mitigations to protect non-priority users. For example, along arterial roads, it will be important to mitigate impacts on residents without impacting unduly on vehicular traffic flows – whether in terms of noise by improved screening, or severance by Mile End Bridge-type crossings.

At the other end of the spectrum, pedestrian signals were introduced in Sloane Square to help control the very high flows of pedestrians and give vehicular traffic a chance. The priorities remain clear, but some minimal mitigation is provided.

With the different street-types, different users in those particular contexts will be impacted in varying ways, with some gaining and some possibly losing, but there will be benefits for all users across the street family as a whole.

For proposed changes, there must be a proper assessment of the costs/benefits of any proposals versus the current situation, taking into account impacts across the different functions and users.

The implications of street-types for vehicle journey time
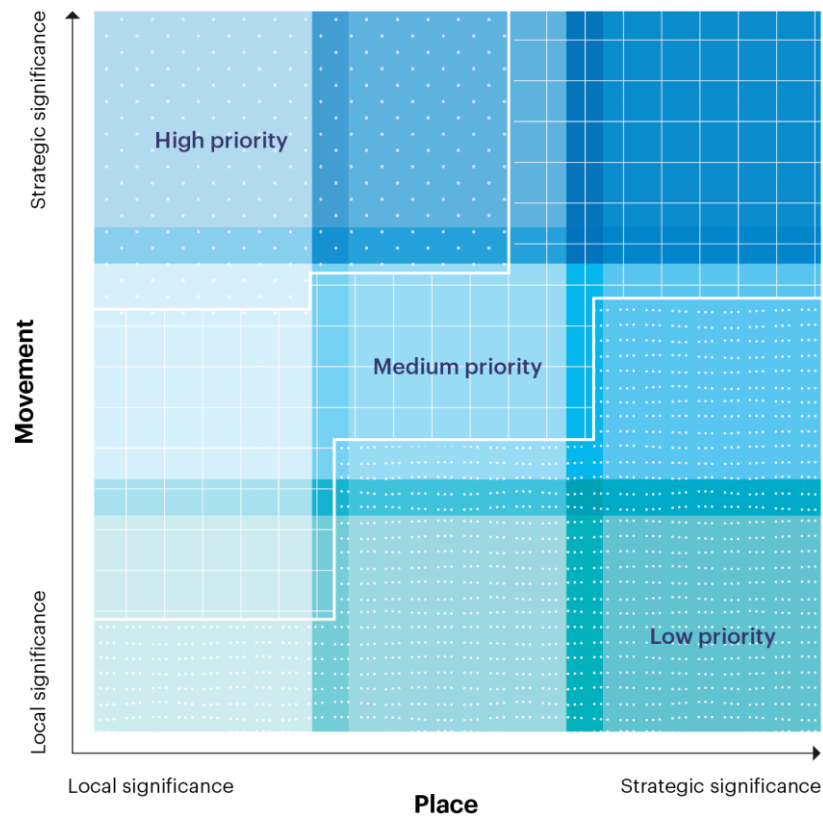
The implications of street-types for pedestrian crossing time
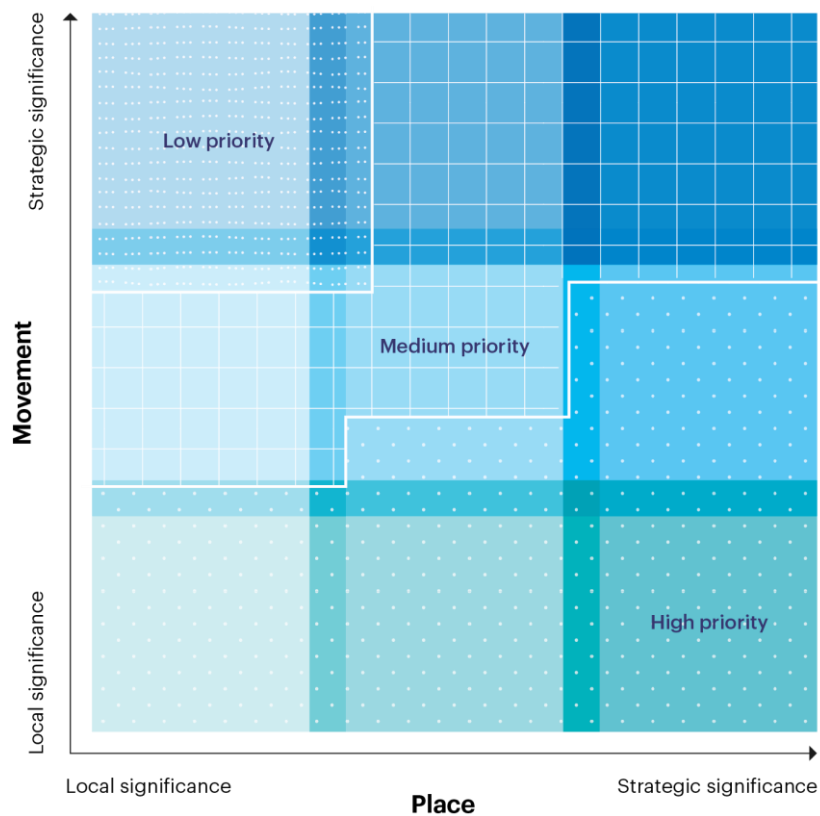
4.3. Implementing the street-types

The RTF recommends that TfL and the boroughs jointly develop and implement the street-types framework and tackle priority locations ensuring they contribute to the long-term vision.

From April 2014, any scheme being put forward by TfL or the boroughs should reflect the street-types approach, ahead of this there should be a pilot with willing boroughs.

An agreed framework, key performance standards and designation of an initial set of roads, for example the strategic road network, should be completed before the end of 2014. All authorities should align, where possible, the three existing definitions of road/street classification (highway, planning and traffic) by June 2016 to ensure consistency in approach between different functions and documents – Local Development Frameworks and Local Implementation Plans.

The approach must be pragmatic and focused on assisting decision-making and delivery, rather than mechanistic and overly complex.

TfL and the boroughs, working with other stakeholders, should:

- Agree priorities and service standards across the street-types

- Agree the designation of street-types for particular roads/streets by understanding its movement and place roles to identify its position on the street-types matrix

- Identify where there are major changes taking place, or are expected, which might alter a street's position on the matrix. For each road/street, this would then inform what the expected priorities should be

- Audit how well the road is actually fulfilling its role – assess current performance levels against the priority service standards and also how well it is mitigating impacts on other users/functions

- Identify appropriate tools to improve performance where there is a gap – and how far local action will enable outcomes to be achieved or how far more strategic measures are needed in order to maintain network outcomes within required network standards

- Agree priorities for action and investment via Local Implementation Plans, borough funding, Community Infrastructure Levy charging schedules, TfL programmes, Local Development Frameworks and partnership programmes

This framework should be used as the basis for involving local businesses, communities and other stakeholders in auditing current performance of streets against expectations, and in developing and assessing proposals for change, recognising the wider strategy within which decisions are then made on improving performance.

For local streets, and small scale projects (for example, pocket parks and neighbourhood improvement schemes), the approach must be light touch to avoid over-burdening local groups and constraining innovation.