3. Case studies and priorities for street-types

The following pages illustrate each of the street-types in greater detail. For each street-type, this chapter identifies the typical issues found in these locations, the different ingredients required for a successful street-type, and an aspirational view showing what a successful street of that type could look like. These are supported by case studies of locations within each street-type that these principles could be applied to.

The purpose of these case studies was to inform the development of the street-types, including the specific interventions and broader measures required to achieve the emerging RTF vision. The challenges and recommendations identified are designed to illustrate the challenges of the relevant street-types, and the measures that would be of greatest benefit.

The case studies are not intended to be a list of confirmed improvements to these roads and should not be treated as such.

The case studies were chosen from the top two rows of the street family matrix. For street-types on the bottom row (local streets, town squares/streets, and city places), please refer to the ‘Better Streets Delivered’ supporting document for studies of how specific issues have been resolved at locations across London.

The case studies that were chosen provide a spread of geographical locations, town centres, and anticipated challenges. A map of the case study locations and a table of the anticipated challenges at these locations are shown on the following pages.
RTF case study locations
### Classification of case study locations and anticipated challenges

<table>
<thead>
<tr>
<th>Geography</th>
<th>A12</th>
<th>A406 North Circular Road</th>
<th>A4 Great West Road</th>
<th>Docklands – Central London Corridor</th>
<th>A24, Tooting</th>
<th>A10, Stoke Newington</th>
<th>A21 Lewisham – Catford</th>
<th>Euston/Marylebone Road</th>
<th>Elephant and Castle</th>
<th>Victoria</th>
<th>Kingston Town Centre</th>
<th>A1055 Bullsmoor Lane</th>
<th>A200 Lower Road</th>
<th>A5 Burnt Oak Broadway</th>
<th>Oxford Street</th>
<th>Wellesley Road</th>
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<tbody>
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<td>CAZ</td>
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</table>
3.1. Arterial roads

Introduction
Successful arterial roads should provide reliable major routes for large volumes of traffic that mitigate the impact on adjacent communities.

Four case studies were undertaken to understand the challenges and potential solutions to achieve the aim for arterial roads. These case study locations were:

- A12
- A406 North Circular Road
- A4 Great West Road
- Docklands – Central London Corridor
Study: A12
Lower Lea Valley area; Tower Hamlets

Summary

Context:
The A12 is one of the Capital’s busiest and most strategically important roads, running from northeast London to the Blackwall Tunnel.

Specific findings and short-term recommendations:
The A12 severs development land in Tower Hamlets from the rest of the borough, limiting provision for the area’s increasing population. The road needs to better support and not impede the significant development forecast along this corridor.

The provision of at-grade crossings would impact on strategic movement and only partially reduce severance, without tackling noise and air quality.

Importance of strategic and long-term measures:
More significant solutions are needed to enable the area to adequately respond to its acute growth pressures, while also enabling efficient arterial movement. These could include Mile End-style bridges for pedestrians and cyclists, decking over sections of the road to provide additional space for development, and public realm improvements. More extensive cut and cover schemes as seen in Boston and Paris could also be possible. Parallel routes for buses and cyclists could better serve local communities and reduce conflict between local and strategic movement. The place functions of these parallel routes could be increased by new developments creating separated high streets with crossings over the A12.
Road users and functions

Generally, the A12 exhibits many of the characteristics of an urban motorway – it is a dual carriageway with two or three lanes in either direction, with limited opportunities to leave and join. There are some areas however where the nature of the road is more like a high road than an arterial road, for example the Bow Interchange. Other sections, such as the area around Bromley-by-Bow station and the new Bow Lock school could become high roads in future as the place function increases.

Although predominantly arterial, there are nonetheless significant trip attractors nearby, including Canary Wharf, Stratford, and local shopping centres at Hackney, Roman Road, Chriss Street and Canning Town. A number of local roads are also impacted, with rat-running a notable issue at peak times.

Of the vehicular traffic that travels on the A12, freight is a key mode that utilises the road space, collectively holding the second highest share (17 per cent) after the private car. Growth in areas along the corridor is likely to increase the proportion of freight traffic on the A12 in future.

Due to the arterial nature of the A12, the mode shares for buses and cycles are very low. There are only four bus services that travel directly on the A12; however there are a number of services that run parallel to the route, and provide vital access between residential areas and other attractors. Similarly the nature of the A12 means that there are few cyclists on the road, but there are a number of major crossing points, with the Cycle Superhighways on the A11 and A13.

Based on the analysis of this study area, this section of the A12 should be considered as an example of the ‘arterial road’ street-type. It is important to note that this definition may change over time as 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.

Pedestrian profile (at Bromley-by-Bow)

Pedestrian profile data is taken from pedestrian counts.
Street-type priorities

The main priorities for arterial roads are:

- More reliable vehicular journey times
- Less congestion
- Sufficient capacity for private vehicles and freight
- Mitigating local impacts e.g. severance

Fulfilling the street-type priorities

Currently, the A12 experiences delays, in particular at the junctions with the A11, A13, A106 and the A406 North Circular. Although these junctions are grade separated, the extent of delays means that the impact is felt more broadly at peak times along the A12.

There is also a need to reduce the negative impact the road has on surrounding communities, and to stop it acting as a barrier between communities.

Challenges maps
### Challenges

#### Moving:
- Improving congestion along the road, particularly around Blackwall and other key junctions
- Making the environment adjacent to the A12 more pleasant for cyclists and pedestrians, and reducing the significant severance which creates barriers to travel
- Reducing the reliance on cars for short, local trips

#### Living:
- Improving the poor quality urban realm across the study area
- Addressing the conflict between the area’s existing communities (where the A12 has slightly more of a high road nature) and the arterial nature of the road
- Reducing the extent of rat-running on local roads adjacent to the A12, such as on the East Cross section in Hackney, close to the Olympic Park

#### Protecting:
- Reducing the number of collisions between motorised vehicles, especially at junctions

#### Functioning:
- Providing for servicing and delivery traffic throughout the day, given the importance of this corridor for freight
- Catering for the additional construction traffic which will be generated as this area develops

#### Sustaining:
- Improving air quality and reducing noise, which are both issues in the vicinity of the A12 given the high flows of vehicular traffic

#### Unlocking:
- Overcoming the severance caused by the A12 to accommodate the high levels of growth in Tower Hamlets forecast for the next 20 years
- Taking advantage of the opportunities to stitch together existing and new communities through new local links across the A12
- Reducing the severance of development land caused by the A12
Addressing the challenges

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.

<table>
<thead>
<tr>
<th>Toolbox Compartments</th>
<th>Short-term specific measures (pre-2016):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Urban realm improvements along and across the A12, such as improved footbridges and subways, and green planting</td>
</tr>
<tr>
<td></td>
<td>• Promotion of parallel walking and cycling routes, such as the Lea River Park</td>
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<td></td>
<td>Medium-term specific measures (2016-2020):</td>
</tr>
<tr>
<td></td>
<td>• Infrastructure improvements for crossing the A12 and accessing services (including possible at-grade crossings), particularly in growth areas such as the new Bow Lock school, and Bromley-by-Bow and Hackney Wick stations, to benefit pedestrians and cyclists</td>
</tr>
<tr>
<td></td>
<td>• Improvements to local buses, links and infrastructure to serve existing and new development</td>
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<td></td>
<td>Long-term specific measures (beyond 2020):</td>
</tr>
<tr>
<td></td>
<td>• Addressing congestion along the corridor, which could be reduced by building alternative river crossings</td>
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<td>• Further segregation of highway and crossing movements, for example land bridges, decking over or ‘cut and cover’ sections, and developing a parallel local route or new grade separated crossing route to unite new developments, improve access to local services and maintain the strategic movement function of the A12</td>
</tr>
</tbody>
</table>

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, public transport services, and car-lite development
- Vehicular traffic management using SCOOT and active network management.
- The construction of a parallel local route, as outlined above, could also be vital to ensuring that the strategic movement function of the A12 is maintained
Study: A406 North Circular Road
North London

Summary

Context:
The North Circular is the main orbital road in north London, linking many key radial routes between the A13 and the A4. It is one of the busiest roads in London and facilitates movement between town centres and neighbourhoods across Outer London for people and goods.

Specific findings and short-term recommendations:
The road is congested at several points, including the intersections of Henlys Corner and Hanger Lane, and other at-grade junctions with local roads. Retail and other car-based development along the road has exacerbated congestion levels. Residents’ quality of life is severely impaired by poor air quality, noise and severance.

Interventions similar to recent schemes at Henlys Corner and Bounds Green could help reliability but will not be enough to cope with rising traffic levels: the North Circular links the Thames Gateway, Upper Lea Valley, Brent Cross and Old Oak Common growth areas.

Importance of strategic and long-term measures:
A clear strategy is needed for the road, focused on providing reliable and acceptable journey times, through measures such as junction improvements, or decking sections of the road to reclaim the land above it. This could improve conditions for residents and free up space for local transport, community uses or development.
Road users and functions

The A406 North Circular Road (NCR) forms the key orbital road route in London together with the South Circular. It is a strategic link between the busiest radial roads in London including three motorways. The route is mostly grade separated, with two to three lane stretches, but lower capacity in some areas, such as at Hanger Lane and Bounds Green.

The road covers a significant geographical area, and most of the land adjacent to the A406 is dominated by large retail sheds and residential areas. There are also a number of important town centres near to the NCR, such as Ilford and Barking. The Park Royal industrial area, the largest industrial park in London, also lies adjacent to the western section of the NCR.

The majority of journeys on the NCR are made by car, with over 100,000 cars using certain sections of the road each day. There is also a significant volume of goods vehicles (up to 25,000 per day on some sections), with many of these vehicles travelling to and from the large retail sheds along the NCR. The nature of the road means that few pedestrians and cyclists use the road, with the only notable volumes recorded on at-grade sections of the route (Hanger Lane, Bounds Green Road). Although bus movements account for a small proportion of vehicular traffic (less than one per cent), there are some routes that travel on the NCR, with many crossing at key junctions.

Based on the analysis of this study area, the A406 should be considered as an example of the ‘arterial road’ street-type. It is important to note that this definition may change over time as users and functions of the road change.
Mode share data is taken from manual classified counts over the course of a full day.

Pedestrian profile data is taken from pedestrian counts.
Street-type priorities

The main priorities for arterial roads are:

- More reliable vehicular journey times
- Less congestion
- Sufficient capacity for private vehicles and freight
- Mitigating local impacts eg severance

Fulfilling the street-type priorities

As the primary function of the NCR is the movement of high volumes of vehicular traffic, its assignment to the arterial street-type is well-suited, although there are some at-grade sections (Bounds Green, Hanger Lane) where the road operates more as a high road, with a slightly greater importance placed on the living function, and greater use of the road by pedestrians and cyclists.

Although some sections of the NCR (particularly east of the A10) provide uncongested and reliable journey times for vehicular traffic, this is an issue on western sections, particularly at some of the at-grade junctions.

Challenges maps
<table>
<thead>
<tr>
<th>Challenges</th>
<th>A406 North Circular Road</th>
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<tbody>
<tr>
<td><strong>Moving:</strong></td>
<td></td>
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<tr>
<td>- Reducing the significant delays that occur at at-grade junctions (Hanger Lane, Bounds Green, Henlys Corner). These impact on journey time reliability for motorised vehicles, especially buses</td>
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<tr>
<td>- Maintaining the good performance of the eastern section of the NCR, where the greater capacity leads to better journey time reliability</td>
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<td><strong>Living:</strong></td>
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<td>- Reducing the severance effect on communities that lie either side of the NCR, such as at Woodford</td>
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<tr>
<td>- Reducing the severance effect on pedestrians caused by at-grade junctions and grade separated sections, and improving access to bus stops</td>
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<tr>
<td>- Improving the poor quality public realm in the vicinity of grade separated junctions, and along other stretches</td>
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<tr>
<td><strong>Protecting:</strong></td>
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<tr>
<td>- Addressing the high KSI rate on the NCR – several links and junctions have been classified as priorities for road safety due to the above average collision rates.</td>
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<tr>
<td><strong>Functioning:</strong></td>
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<tr>
<td>- Maintaining movement requirements for delivery and servicing traffic to access the many large retail areas along the corridor</td>
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<td><strong>Sustaining:</strong></td>
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<tr>
<td>- Reducing noise, particularly at the at-grade sections. Noise levels exceed 75 dB(A) along the NCR</td>
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<tr>
<td>- Reducing air pollution, particularly at the at-grade sections. Several areas have classified as priorities for improving NO₂ and PM₁₀ levels</td>
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<td><strong>Unlocking:</strong></td>
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<tr>
<td>- Providing reliable access to the growth areas around the NCR (Brent Cross, Park Royal, Meridian Water)</td>
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<tr>
<td>- Catering for the significantly higher future vehicular traffic demand</td>
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</tbody>
</table>
Addressing the challenges

A406 North Circular Road

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.

<table>
<thead>
<tr>
<th>Toolbox Compartments</th>
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<tbody>
<tr>
<td>Infrastructure and assets fit for the future</td>
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<tr>
<td>More efficient/ flexible use of space</td>
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<tr>
<td>Intelligent systems and management</td>
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<tr>
<td>Changing behaviour/ managing demand</td>
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<tr>
<td>Substitute/ re-located/ enhanced capacity</td>
</tr>
</tbody>
</table>

Short-term specific measures (pre-2016):

- New green infrastructure and noise mitigation measures to minimise exposure of local residents to pollution from the road
- Implementation of Better Streets schemes to improve the urban realm at at-grade crossings, and signal optimisation to reduce delays at these junctions
- Changes to road signs and road lines to improve road safety
- Addressing planning blight locations to give greater certainty over timescales

Medium-term specific measures (2016-2020):

- Upgrading existing pedestrian-crossings at at-grade junctions to facilitate easier pedestrian movement and improve pedestrian safety

Long-term specific measures (beyond 2020):

- Exploiting opportunities to increase vehicular capacity at key at-grade junctions, including Green Lanes, Bounds Green Road, and Golders Green Road. This could involve widening the route to encompass more vehicles, or more radical solutions such as flyunders and bored tunnels
- Using cut-and-cover schemes or decking over the road to re-unite communities

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. This could also involve discouraging car-based development along the NCR to reduce the number of local car trips
- Active network management, to hold vehicular traffic back from entering onto the NCR at certain points
- Improved orbital public transport, including strategic interchanges and bus services
Study: A4 Great West Road
Chiswick Roundabout to Hammersmith; Hounslow and Hammersmith and Fulham

Summary

Context:
The A4 is a major arterial road in west London carrying high volumes of traffic (over 90,000 vehicles per day) between the M4 and central London.

Specific findings and short-term recommendations:
Between Chiswick Roundabout and Hammersmith, the road causes severance and crossing opportunities are limited to subways. At Hammersmith, a flyover separates the arterial motorised traffic from the gyratory and town centre below. The flyover is visually intrusive and the high levels of motorised traffic generate noise and air pollution along the corridor.

In the short-term, further roll-out of Split Cycle Offset Optimisation Technique (SCOOT) will improve journey time reliability, and improving subway conditions (the main crossing opportunities along the corridor) will help to increase pedestrian safety and security.

Importance of strategic and long-term measures:
To exploit the potential new surface developments and make greater use of Hammersmith’s established transport hub, longer-term proposals for providing alternative tunnelled routes for through-traffic should be explored. This would have transformative effects on the town centre, greatly improving the quality of life for its residents, and reducing severance of communities along the corridor.
Road users and functions

The A4 at Hammersmith is a major arterial route in west London, and provides the primary link between Central London and Heathrow Airport. There are a number of major buildings alongside the road (Hammersmith Town Hall, Hammersmith Apollo), but due to the elevation of the road at Hammersmith, together with its strategic nature, there is little interaction between these buildings and the A4.

The arterial nature of the A4 is reflected in the volume of vehicular traffic using the road. Approximately 100,000 vehicles use the A4 between the Hogarth Roundabout and the eastern end of the Hammersmith flyover each day. Pedestrians and cyclists are separated by dedicated cycle lanes and physical barriers to protect them from the motorised traffic. There are few at-grade crossings provided on the A4 (except for underneath the flyover), with subways providing the main crossing opportunities.

Vehicular traffic on the A4 is dominated by cars, with the vast majority being single occupancy trips. A large majority (85 per cent) of movement on the A4 is strategic (over 10km in length). The A4 is also an important corridor for freight movement, with 15-20 per cent of vehicular traffic comprised of LGVs and HGVs. There are no bus routes that run on the A4 itself; however, the A4 is a very important corridor for coaches. Around 30 per cent of scheduled services to and from Victoria Coach Station use the A4 (approximately 400 coaches per day), and a large number of private hire coaches use the A4 to travel between Central London and Heathrow.

Based on the analysis of this study area, the A4 should be considered as an example of the ‘arterial road’ street-type. It is important to note that this definition may change over time as users and functions of the road change.
Mode share data is taken from manual classified counts over the course of a full day.

No pedestrian counts were conducted at this location. Due to the arterial nature of the road, pedestrian activity is low, with most crossing opportunities provided by subways rather than at-grade crossings.
Street-type priorities

The main priorities for arterial roads are:

- More reliable vehicular journey times
- Less congestion
- Sufficient capacity for private vehicles and freight
- Mitigating local impacts eg severance

Fulfilling the street-type priorities

Overall, the A4 performs well as an arterial road for vehicles travelling along it, with journey time reliability at 90 per cent, and remaining relatively constant over the past couple of years. It also performs much better than the parallel A40 route.

Although the road generally achieves the priorities for arterial roads, there needs to be greater consideration of the areas along the A4, particularly at Hammersmith. In particular there is a real need to reunite the areas by the riverside with communities further north, whose links and connections have been severed by the presence of the A4.

Challenges maps
### Challenges

**Moving:**
- Reducing delays on the eastern section of the corridor, between Hammersmith and central London
- Maintaining journey time reliability – the A4 provides more reliable journeys than the parallel A40 route. Vehicular traffic conditions on the A40 and A4 are however closely related – delays or closure of sections of the A40 can lead to over-reliance of through-traffic on the A4

**Living:**
- Removing the barrier that the A4 creates for crossing movements
- Reducing the visual and place impact of the Hammersmith Flyover

**Protecting:**
- Reducing the number of informal crossings by improving the crossing facilities along the road
- Reducing the number of KSIs on the road: 15 KSIs were recorded between 2009 and 2012, suggesting that the speed and volumes of motorised traffic on the A4 are a particular concern

**Functioning:**
- There are few functioning challenges to be addressed on the A4: despite the number of significant buildings adjacent to the A4 (The Ark, Hammersmith Town Hall, Hammersmith Apollo), these do not front onto the A4 directly.

**Sustaining:**
- Reducing noise and improving air quality in the priority areas for improvement (where noise levels are above 75 dB(A) and where levels of particulate matter are among the highest in London), as pollution has a detrimental impact on the surrounding communities

**Unlocking:**
- Encouraging greater use of the large number of offices and business premises adjacent to the A4 that currently lie vacant, partly due to the severance created by the A4
Addressing the challenges

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-to-medium term specific measures (pre-2020):**

- Improving the quality of surface materials to help reduce noise pollution
- Increased green planting to improve air quality and noise screening
- Extending SCOOT control, conducting a signage review, and identifying opportunity for VMS conversion/rationalisation to address congestion issues

**Medium-to-long-term specific measures (beyond 2020):**

- If feasible, constructing a flyunder between Chiswick roundabout and Earls Court (potentially financed by developing the unlocked land above ground)
- Creating new public spaces and greater provision for pedestrians and cyclists on redeveloped land where the flyover currently stands

**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:

- The proposed flyunder between Chiswick and Earls Court (as outlined in the long-term measures above), to better cater for strategic movements and allow the area where the flyover currently stands to be redeveloped
- Supporting this with other broader strategic measures (such as traffic calming, car clubs and demand management), to encourage a significant reduction in both the volume and speed of surface level motorised traffic and allow the place and living aspirations to be achieved successfully
Study: Docklands – Central London Corridor
A13, A1203 and A3211; East London

Summary

Context:
The Docklands – Central London Corridor forms a key route into the centre of the Capital, particularly for freight and servicing traffic, and connects the employment centres of Canary Wharf and the City.

Specific findings and short-term recommendations:
Congestion on these roads is high and pressure on the corridor will increase with the substantial growth forecast for east London. Significant increases in cycling must also be accommodated – the planned cycle route along Victoria Embankment will reduce road space, requiring motorised traffic to be reduced or re-routed. The A13 causes significant severance for communities and potential growth areas.

Short-term measures should focus on operational improvements, including the further roll-out of SCOOT, dynamic network management and pedestrian countdown, while also seeking to greatly improve environmental conditions.

Importance of strategic and long-term measures:
Traffic flows could be further regulated using a demand management plan, particularly for freight traffic. This could include the use of consolidation centres and out-of-hours deliveries. Junction improvements would also reduce congestion and unlock the substantial development potential of adjacent land. Studies are required to determine the feasibility of reducing severance along these corridors using schemes such as land bridges, and improving the local environment by transforming the public realm in town centres.
The user profiles vary along this corridor, and this is reflected in the variation in street-types along the study area. To the west of the junction with the North Circular Road, the adjacent land use is mostly suburban and urban residential areas. Closer to central London, the corridor has a large number of major trip attractors, including Canary Wharf, the O2 Arena, the City of London and the major tourist attractions in central London.

Volumes of vehicular traffic in the study area are highest on the three-lane sections of the A13 towards the M25, where the road operates close to capacity, carrying over 117,000 vehicles per day. The A13 corridor is also one of the major routes into central London for freight.

Pedestrian and cyclist activity along much of the A13 corridor is low, with grade separated crossings and subways provided where there is demand. This activity increases further west along the corridor, particularly as the road becomes a city hub/boulevard. Victoria Embankment is a major cycle route, accommodating up to 1,600 cyclists per hour at peak times, and the volume of cyclists will increase with the construction of the east-west cycle route along this road.

Based on the analysis of this study area, the A13 should be considered as an example of the ‘arterial road’ street-type, the A1203 as a ‘high road’, and the A3211 as a ‘city hub/boulevard’. It is important to note that these definitions may change over time as the users and functions of the road change.
Vehicle mode share (Docklands)

People movement mode share* (Docklands)
*based on vehicle occupancy

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

<table>
<thead>
<tr>
<th>Mode</th>
<th>Car</th>
<th>LGV</th>
<th>HGV</th>
<th>Bus/Coach</th>
<th>P2W</th>
<th>Cycles</th>
<th>Taxi</th>
</tr>
</thead>
</table>

Pedestrian profile (Commercial Road)

Pedestrian profile data is taken from pedestrian counts. Note that the pedestrian profile varies significantly along the corridor as a result of the changing land uses.
Street-type priorities

The main priorities for arterial roads are:

- More reliable vehicular journey times
- Less congestion
- Sufficient capacity for private vehicles and freight
- Mitigating local impacts e.g. severance

The main priorities for high roads are:

- Reliable journeys for vehicles
- Bus priority
- Safer, inclusive and higher quality pedestrian environment (including 20mph limit)
- Accessibility of local services, shops and access for freight

Docklands – Central London Corridor

The main priorities for city hubs/boulevards are:

- Access for buses
- High-quality environment for pedestrians and cyclists
- Urban realm to support revitalised city quarters
- Improved safety and environmental quality
- Sufficient movement for network functioning

Fulfilling the street-type priorities

There are a number of different needs and priorities that this corridor satisfies. However, there are certain aspects of both the movement and living functions that still need to be addressed, particularly the congestion and unreliable journey times at peak hours, and the severance and poor quality urban realm in east London.

Challenges maps
### Challenges

#### Docklands – Central London Corridor

<table>
<thead>
<tr>
<th>Moving:</th>
<th>Docklands – Central London Corridor</th>
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<tbody>
<tr>
<td>• Reducing congestion on the A13 at peak times, particularly at junctions with the A12 and North Circular Road</td>
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<tr>
<td>• Maintaining journey reliability between central London and Canary Wharf</td>
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<tr>
<td>• Identifying a suitable east-west cycle route on Victoria Embankment</td>
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<tr>
<td>• Ensuring that the A13 continues to provide reliable access to central London for freight vehicles</td>
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<tr>
<td>• Improving crossing opportunities for pedestrians and cyclists</td>
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<thead>
<tr>
<th>Living:</th>
<th>Docklands – Central London Corridor</th>
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<tbody>
<tr>
<td>• Reuniting communities (e.g. Poplar, Canning Town, Barking and Dagenham) where severance exists, particularly in areas earmarked for redevelopment</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Protecting:</th>
<th>Docklands – Central London Corridor</th>
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<tr>
<td>• Making junctions along the corridor and on-slip approaches on the A13 safer</td>
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<tr>
<td>• Reducing the number of accidents – in particular, the junctions of Blackfriars Interchange, Tower Hill gyratory (notably Tower Bridge approach) and the A13 Ripple Road/Lodge Avenue junction</td>
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<table>
<thead>
<tr>
<th>Functioning:</th>
<th>Docklands – Central London Corridor</th>
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<tr>
<td>• Ensuring reliable access to delivery and servicing premises along the road itself</td>
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<thead>
<tr>
<th>Sustaining:</th>
<th>Docklands – Central London Corridor</th>
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<tr>
<td>• Addressing problems of large volumes of particulate emissions, particularly at the A12/A13 junction at East India Dock Road, the Limehouse Link portals, Tower Hill/East Smithfield, London Bridge, Waterloo Bridge and Parliament Square</td>
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<tr>
<th>Unlocking:</th>
<th>Docklands – Central London Corridor</th>
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<tr>
<td>• Ensuring that accessible routes to development areas in the corridor (particularly Barking Riverside, Royal Docks and the Olympic Park) are provided for vehicular traffic</td>
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<tr>
<td>• Providing accessible routes to encourage greater numbers of people to walk or cycle</td>
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<tr>
<td>• Providing sufficient junction capacity to unlock development</td>
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</table>
Addressing the challenges Docklands – Central London Corridor

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):
- Operational improvements, namely introducing SCOOT and pedestrian countdown technology to outer boroughs in east London
- Priority measures along key bus routes crossing the corridor (e.g. A124, A118, A2, A202), to help maintain bus reliability if more strategic traffic management proposals are introduced
- Improving pedestrian and cycling infrastructure and carrying out streetscape enhancements, especially towards central London
- Carrying out a study into KSI incidents along the corridor in order to identify locations where road safety improvements would have the greatest benefit

Medium to long-term specific measures (2016 onwards):
- Developing a common strategic vision for the corridor, supported by relevant east London boroughs
- Considering a number of infrastructure upgrades, including reconstruction of the flyover at Lodge Avenue (a major pinch-point) and new roads and bridges required to provide adequate highway capacity linkage at Barking Riverside
- Maximising the potential of Crossrail to relieve pressure on this corridor

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. This will be particularly pertinent following the opening of Crossrail, and the potential rail link to Barking Riverside
- Using cut-and-cover schemes or decking over the road to re-unite communities

London’s street family: Theory and case studies 40
Arterial road (1) – typical issues (as found in the case studies)

1. High motorised traffic flows with no priority measures for buses
2. Lack of cycle lanes creates a potentially high risk environment for cyclists
3. Cluttered and unnecessary signage
4. Narrow footways not separated from busy road
5. Lack of shelter or seating at bus stop
6. Poor quality paving on footways
7. Poor quality lighting
8. High noise levels which impact on residential areas
Arterial road (1) – ingredients

1. Increased highway capacity to provide improved movement for public transport, freight, and high occupancy vehicles
2. High-quality segregated cycle lanes and wide footways, separated from the road using a vegetation buffer
3. High-quality bus stop with a large shelter and live service information
4. Landscaped median with trees
5. High-quality street lighting
6. Upgraded road junctions with smart traffic signals to smooth vehicular traffic flow and reduce congestion
7. Improved formal crossings with pedestrian countercross
8. Low noise surfacing
Arterial road (1) – aspirational view
Arterial road (2) – typical issues (as found in the case studies)

1. High motorised traffic flows with no priority measures for buses
2. Lack of crossing opportunities for pedestrians, causing severance of local communities
3. Poor access to public transport for local users
4. Lack of provision for cyclists
5. Bus services delayed by use of inset lay-bys
6. Visually unattractive barriers
7. Cluttered and unnecessary signage
8. High noise levels which impact on residential areas
9. Maintenance items left back on the road after works
Arterial road (2) – ingredients

1. Broad landscaped bridge, or roofed over section of road, incorporating pedestrian, cyclist and local vehicular routes, to reduce severance of communities
2. Separation of buses from other motorised traffic to improve local access to public transport
3. High-quality bus stop with a large shelter and live service information
4. Improved landscape setting incorporating separated cycle routes and wide footways to improve walking and cycling access in the local area
5. Improved access, physical environment and connectivity to enable new development
6. Street trees to assist visual and noise screening
7. Real-time information for motorised traffic
8. Lane rationalisation and separation of buses to enhance motorised traffic capacity
9. Cluttered and unnecessary signage removed
10. Improved median barriers
Arterial road (2) – aspirational view
Arterial road (2) – aspirational view
Summary
Successful arterial roads should provide reliable major routes for large volumes of traffic that mitigate the impact on adjacent communities.

Having considered the aims and undertaken the case studies, the following approach is suggested for arterial roads:

Functions
- Arterials are essential for business, bringing goods into and out of London
- They are key to moving large volumes of motorised traffic, for example the busiest parts of the A12 cater for more than 100,000 vehicles a day with the North Circular exceeding 120,000
- Trip lengths vary with arterial roads catering for long-distance as well as shorter trips

Users
- Cars take up more than half of the traffic
- Freight takes up the next biggest share, up to a third
- Buses, cyclists and pedestrians are more likely to cross arterial roads than travel along them

Challenges
- Congestion during peak periods
- Daily customer experience needs to be more consistent
- Severance between the areas they pass through

Priorities (key service standards)
- More reliable vehicular journey times
- Less congestion
- Sufficient capacity for private vehicles and freight
- Mitigating local impacts eg severance

Providing for other users
- Reducing severance by providing opportunities to cross the road, potentially via high-quality bridges/underpasses
- Good parallel routes for local traffic and cycling
- Reducing air quality/noise impacts/more greenery